DEPARTMENT OF PARKS & RECREATION
PATRICK T. PORTER, DIRECTOR
PRESTON CHONG, ACTING DEPUTY DIRECTOR

DEREK S.K. KAWAKAMI, MAYOR
REIKO MATSUYAMA, MANAGING DIRECTOR

12/15/2025

Ms. Mary Alice Evans, Director
Office of Planning and Sustainable Development
Department of Business, Economic Development and Tourism
Environmental Review Program
235 S. Beretania Street, Room 702
Honolulu, HI 96813

Subject: Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA-AFONSI)
Black Pot Beach Park Master Plan Improvements Project
Hanalei, Kaua'i, Hawai'i
Tax Map Key: (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049

Dear Ms. Evans:

The County of Kaua'i Department of Parks and Recreation is transmitting the Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA-AFONSI) for the Black Pot Beach Park Master Plan Improvements Project. The DEA-AFONSI has been prepared pursuant to Chapter 343, Hawai'i Revised Statutes, and Chapter 11-200.1, Hawai'i Administrative Rules.

We respectfully request that the DEA-AFONSI be published in the next available issue of The Environmental Notice. Materials required for the publication are being provided via the Environmental Review Program's online form.

Should you have any questions, please contact Mr. Kylan Dela Cruz, Chief of Planning & Development Division at (808) 241-4460 or kdelacruz@kauai.gov.

Sincerely,

Patrick Porter Digitally signed by Patrick Porter
Date: 2025.12.15 15:10:07 -10'00'

Patrick T. Porter
Director

From: dbedt.opsd.erp@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Tuesday, December 16, 2025 9:45:46 AM

Action Name

Black Pot Beach Park Master Plan Improvements

Type of Document/Determination

Draft environmental assessment and anticipated finding of no significant impact (DEA-AFNSI)

HRS §343-5(a) Trigger(s)

- (1) Propose the use of state or county lands or the use of state or county funds

Judicial district

Hanalei, Kaua'i

Tax Map Key(s) (TMK(s))

(4) 4-5-001:002 [por.], 004, 008, 011, 033, 034, and 039

Action type

Agency

Other required permits and approvals

Various - See Section 1.4

Proposing/determining agency

County of Kaua'i, Department of Parks and Recreation

Agency jurisdiction

County of Kaua'i

Agency contact name

Kylan Dela Cruz

Agency contact email (for info about the action)

kdelacruz@kauai.gov

Email address for receiving comments

blackpot@g70.design

Agency contact phone

(808) 241-4460

Agency address

4444 Rice Street
Suite 105
Lihue, Hawaii 96766
United States
Map It

Is there a consultant for this action?

Yes

Consultant

G70

Consultant contact name

Mark Kawika McKeague

Consultant contact email

blackpot@g70.design

Consultant contact phone

(808) 523-5866

Consultant address

111 S. King Street
Suite 170
Honolulu, HI 96813
United States
Map It

Action summary

The County of Kaua'i, Department of Parks and Recreation is planning to implement the 2021 Black Pot Beach Park Master Plan. The 2021 Master Plan was the result of a comprehensive, community-based planning process that engaged a broad cross-section of stakeholders, including fishermen, surfers, canoe paddlers, boaters, jet ski operators, campers, beachgoing families, neighboring landowners, commercial and tourism representatives, government agencies, and community organizations. The Master Plan establishes a framework to guide facility improvements in a manner that accommodates diverse recreational uses while maintaining the park's local character and community significance. The County is planning to implement the facility improvements identified in the Master Plan to accommodate the wide range of park users in a safe and sustainable manner.

Reasons supporting determination

See Section 6

Attached documents (signed agency letter & EA/EIS)

- Black-Pot-Master-Plan-Improvements-2025-12-16_searchable.pdf
- Black-Pot-MP_ERP-Publication-Request_unlocked.pdf

ADA Compliance certification (HRS §368-1.5):

The authorized individual listed below acknowledges that they retain the responsibility for ADA compliance and are knowingly submitting documents that are unlocked, searchable, and may not be in an ADA compliant format for publication. Audio files do not include transcripts, captions, or alternative descriptions. The project files will be published without further ADA compliance changes from ERP, with the following statement included below the project summary in The Environmental Notice: "If you are experiencing any ADA compliance issues with the above project, please contact (authorized individual submitting the project at email)."

Action location map

- prj_area_2025_1020.zip

Authorized individual
Kiralee Ramos
Authorized individual email
kirar@g70.design
Authorized individual phone
(808) 523-5866
Authorization
• The above named authorized individual hereby certifies that he/she has the authority to make this submission.

Black Pot Beach Park Master Plan Improvements

DRAFT ENVIRONMENTAL ASSESSMENT

HANALEI, ISLAND OF KAUA'I, HAWAI'I



PETITIONER/APPLICANT:

PREPARED BY:

G70
111 S. King Street, Suite 170
Honolulu, Hawai'i 96813

DECEMBER 2025

BLACK POT BEACH PARK MASTER PLAN IMPROVEMENTS

Hanalei, Island of Kaua‘i, Hawai‘i

Tax Map Key: (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034, and 049

Draft Environmental Assessment

Applicant:

County of Kaua‘i
Department of Parks and Recreation
4444 Rice Street, Suite 105

Approving Agency:

County of Kaua‘i
Department of Parks and Recreation
4444 Rice Street, Suite 105

Prepared By:

111 S. King Street, Suite 170
Honolulu, Hawai‘i 96813

This environmental document is prepared pursuant to 343, Hawai‘i Revised Statutes and Chapter 200.1 of Title 11, Administrative Rules, Department of Health, Environmental Impact Statement Rules.

DECEMBER 2025

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Appendix F. Cultural Impact Assessment

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Abbreviations

AIS	Archaeological Inventory Survey
BFE	Base Flood Elevation
BMPs	Best Management Practices
CAC	Community Advisory Committee
CIA	Cultural Impact Assessment
CSH	Cultural Surveys Hawaii
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
CZO	Comprehensive Zoning Ordinance
DAR	Division of Aquatic Resources
DCAB	Disability and Communication Access Board
DLNR	Department of Land and Natural Resources
DOBOR	Division of Boating and Ocean Recreation
DOFAW	Division of Forestry and Wildlife
DOE	Department of Education
DOH	Department of Health
DPR	Department of Parks and Recreation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ERP	Environmental Review Program
FR	Foreign Registry
FT	Foreign Testimony
FEMA	Federal Emergency Management Agency
FFE	Finished Floor Elevation
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HAR	Hawai‘i Administrative Rules
HKMO	Hui Kū Maoli Ola
HRS	Hawai‘i Revised Statutes

IPaC Information for Planning and Consultation
IWS Individual Wastewater System
KFD Kaua‘i Fire Department
KIUC Kaua‘i Island Utility Corporation
KNIBC Kaua‘i-Ni‘ihau Burial Council
LCAs Land Commission Awards
Mph Miles Per Hour
MSL Mean Sea Level
NR Native Registry
NT Native Testimony
NOAA National Oceanic and Atmospheric Administration
NRCS Natural Resources Conservation Service
OSB Ocean Safety Bureau
PacIOOS Pacific Islands Ocean Observing System
SAAQS State Ambient Air Quality Standards
SHPD State Historic Preservation Division
SLR Sea Level Rise
SLR-XA Sea Level Rise Exposure Area
SMA Special Management Area
TEN The Environmental Notice
TMK Tax Map Key
USDA U.S. Department of Agriculture
USFWS U.S. Fish and Wildlife Service
USGS U.S. Geological Survey

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Chapter 1

Introduction

Chapter 1

Introduction

This Environmental Assessment (EA) has been prepared in accordance with the requirements of Hawai'i Revised Statutes (HRS), Chapter 343 and Hawai'i Administrative Rules (HAR), Title 11, Chapter 200.1, Department of Health (DOH). Black Pot Beach Park is owned by County of Kaua'i and operated by the Department of Parks and Recreation (DPR). To proceed with the implementation of the 2021 Master Plan, DPR must comply with environmental review procedures in accordance with HRS, Chapter 343.

1.1 Project Information Summary

Type of Document:	Draft Environmental Assessment
Project Name:	Black Pot Beach Park Master Plan Improvements Project
Applicant:	County of Kaua'i Department of Parks and Recreation 4444 Rice Street, Suite 105 Contact: Kylan Dela Cruz, Chief of Planning and Development Telephone: (808) 241-4460
Agent:	G70 111 S. King Street, Suite 170, Honolulu, HI 96813 Contact: Kawika McKeague, AICP, Principal Telephone: (808) 523-5866
Approving Agency:	County of Kaua'i Department of Parks and Recreation 4444 Rice Street, Suite 105 Contact: Kylan Dela Cruz, Chief of Planning and Development Telephone: (808) 241-4460
EA Triggers:	Use of County Lands & State Funds
Project Location:	Black Pot Beach Park Hanalei, HI *(Figure 1-1)*
Tax Map Keys (TMK):	(4) 4-5-001:002 [por.], 004, 008, 011, 033, 034, and 049 *(Figure 1-2a)*
Project Area:	Approximately 13.7 acres
State Land Use District:	Urban, Agriculture, and Conservation *(Figure 1-3)*

County of Kaua'i Zoning:	Open *(Figure 1-4)*
General Plan Land Use Designation:	Parks & Recreation and Natural (*Figure 1-5)*
Community Plan Area:	North Shore Development Plan Area
Special Management Area:	Within Special Management Area (SMA) (*Figure 1-6*)
Flood Zone:	Zone VE (Coastal Flood Zone) and AEF (Floodway areas in Zone AE; Areas Subject to 1% Flood) *(Figure 1-7)*
Anticipated Determination:	Finding of No Significant Impact (FONSI)

1.2 Background and Overview of the Project

Black Pot Beach Park is located in Hanalei on the Island of Kaua'i (*Figure 1-1*). The beach park is a focal point on Kaua'i's North Shore with its pristine location nestled between the Hanalei River and Hanalei Bay, offering exceptional views of Hanalei Bay and the Nāmolokama, Hīhīmanu, and Māmalahoa mountain peaks. With a wide sandy beach, protected sand bar, and location along the Hanalei Bay and Hanalei River, the beach park offers a wide range of recreational activities and is a popular gathering space for the local community and visitors.

The County of Kaua'i, DPR is planning to implement the *2021 Black Pot Beach Park Master Plan* (2021 Master Plan). The Master Plan identifies improvements to accommodate existing uses, enhance user safety and access, and support sustainable park management.

The 2021 Master Plan was the result of a comprehensive, community-based planning process that engaged a broad cross-section of stakeholders, including fishermen, surfers, canoe paddlers, boaters, jet ski operators, campers, beachgoing families, neighboring landowners, commercial and tourism representatives, government agencies, and community organizations. Initiated in early 2019 and finalized in 2021, the planning effort involved a series of public and focus group meetings designed to gather input and refine the community's vision for the future of Black Pot Beach Park.

In keeping with the community's expressed goals, DPR is advancing this Draft EA pursuant to HAR Chapter 11-200.1 to evaluate potential environmental impacts and to support implementation of the 2021 Master Plan. The project will fulfill the community's long-standing vision to maintain Black Pot Beach Park as a safe, inclusive, and well-managed public recreation area that balances cultural, environmental, and recreational values.

1.3 Purpose of the Environmental Assessment

This EA is being prepared in accordance with the requirements of HRS Chapter 343 and HAR Chapter 11-200.1. The implementation of the 2021 Master Plan involves the use of County-owned lands and funds and is therefore subject to environmental review under HRS Chapter 343.

The purpose of this EA is to identify and evaluate the potential impacts resulting from the implementation of the 2021 Master Plan on the existing natural and human environment. Consistent with HAR §11-200.1-18, this Draft EA provides a description of the proposed action, identifies potential environmental effects, proposes mitigation measures, and invites agency and public comments.

In accordance with HAR §11-200.1-19, this Draft EA will be published in the Environmental Review Program's bi-monthly bulletin, *The Environmental Notice* (TEN), which will begin a 30-day public review period. During this period, agencies and the public may submit written comments regarding the content and analysis presented in this Draft EA. All comments received will be considered and responded to in the preparation of the Final EA.

Following completion of the Final EA, and consistent with HAR §11-200.1-20, the proposing agency will make a determination of whether the proposed action will have a significant effect on the environment. Based on the analysis presented, the DPR anticipates the issuance of a FONSI.

1.4 Permits and Approvals Required

Several other approvals will be required from the State of Hawai'i and County of Kaua'i to implement the project, as outlined in *Table 1-1* below.

Table 1-1: List of Required Government Permits and Approvals

Permit or Approval	Approving Authority
Final Environmental Assessment/FONSI	DPR
Certified Shoreline Survey (if necessary)	Department of Land and Natural Resources (DLNR)
Special Management Area (Major) Use Permit	Planning Commission
HRS Chapter 6E-8 Compliance Historic Resources	DLNR, State Historic Preservation Division (SHPD)
Building Permits (Demolition, Building, Electrical, Plumbing)	Planning Department
Grading, Grubbing, Trenching and Stockpiling Permits	Department of Public Works

1.5 Agencies, Organizations and Individuals Contacted in Early Consultation

To initiate the environmental review process, and in accordance with HAR §11-200.1-18(b), DPR conducted early consultation at the earliest practicable time. The County sought the advice and input of the County Planning Department, as the agency responsible for implementing the County's General Plan, and consulted with various Federal, State, and County agencies having jurisdiction or expertise, as well as citizen groups and individuals reasonably believed to be affected by the project. The early consultation letter describing the project location, scope, and planned improvements was distributed in November 2024.

Consistent with HAR §11-200.1-18(c), all written comments received during the early consultation period were reviewed and considered in the preparation of this EA. Copies of the consultation correspondence are provided in *Appendix A*. A summary of the comments received, along with a list of agencies and other parties provided an opportunity to review this Draft EA, is included in *Chapter 7*.

Out of courtesy and in recognition of the community-based planning process that guided the 2021 Black Pot Beach Park Master Plan, the County also consulted with members of the Community Advisory Committee (CAC) involved in the Master Plan process to obtain additional feedback relevant to the Master Plan.



Figure 1-1 **Project Location**



Figure 1-2a **County of Kaua'i Property Tax Map Key**



Figure 1-2b **County of Kaua'i Tax Map Key Plat Map**

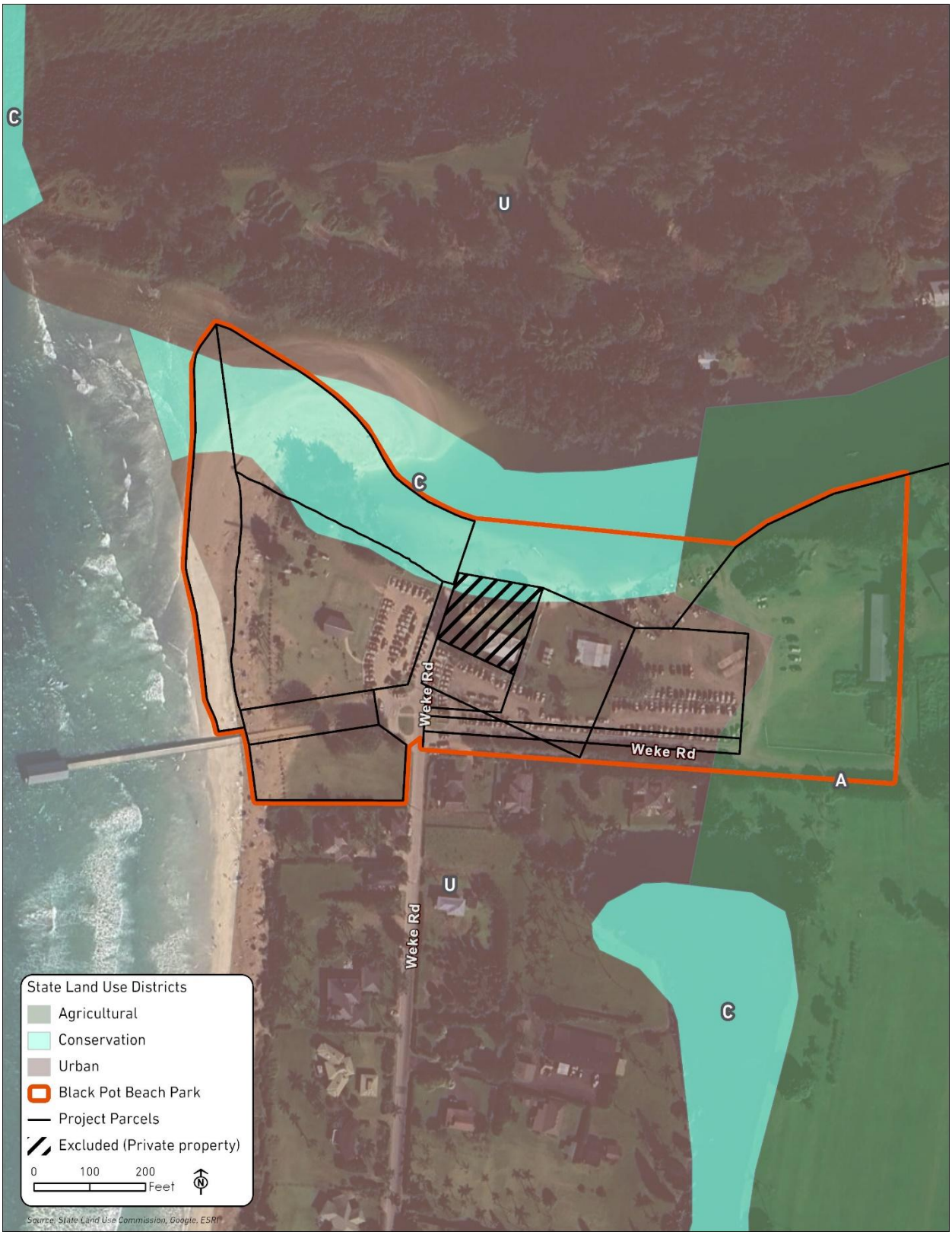


Figure 1-3 **State Land Use Classification**

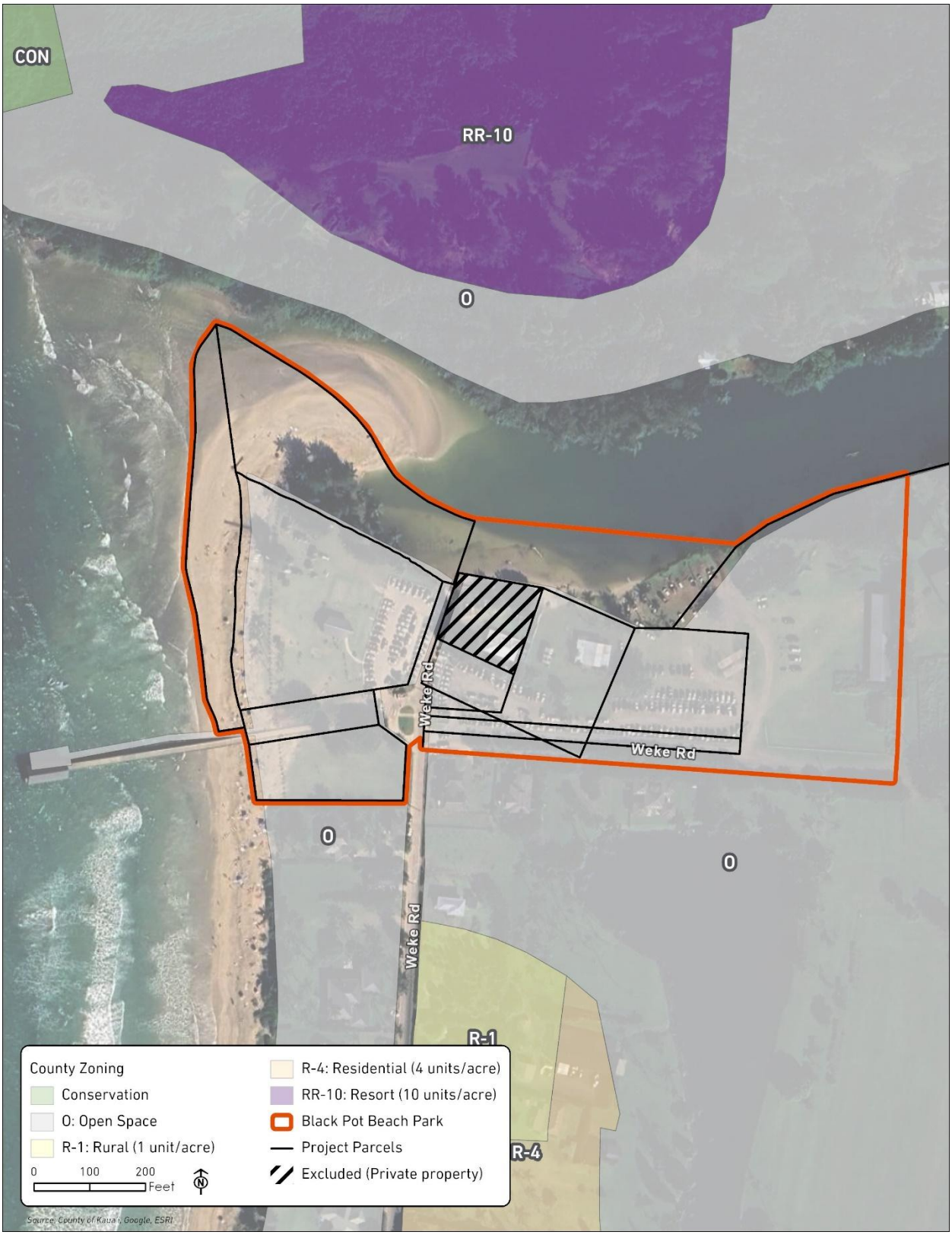


Figure 1-4 **County of Kaua'i Zoning Districts**

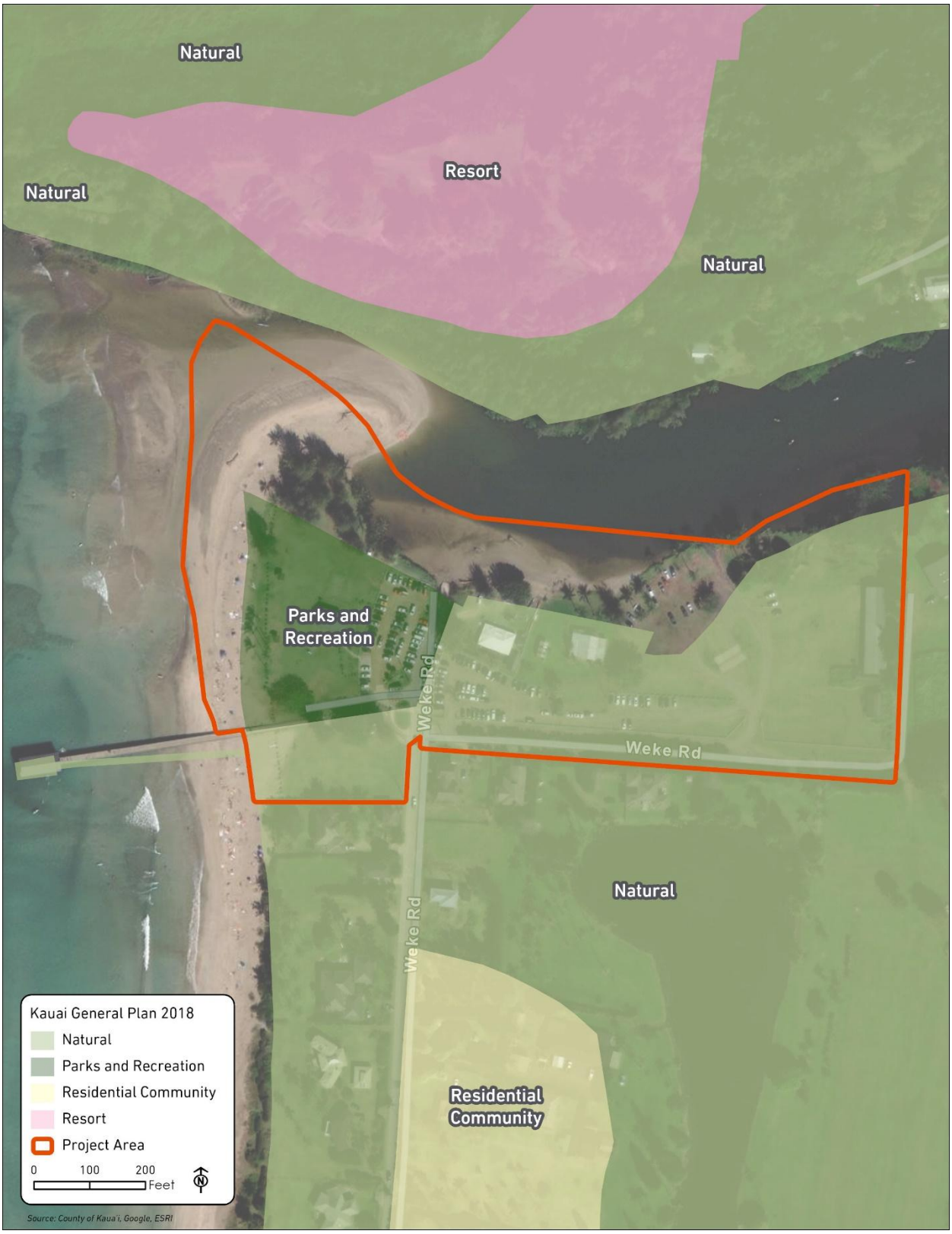


Figure 1-5 **Kaua‘i County General Plan Land Use Map**

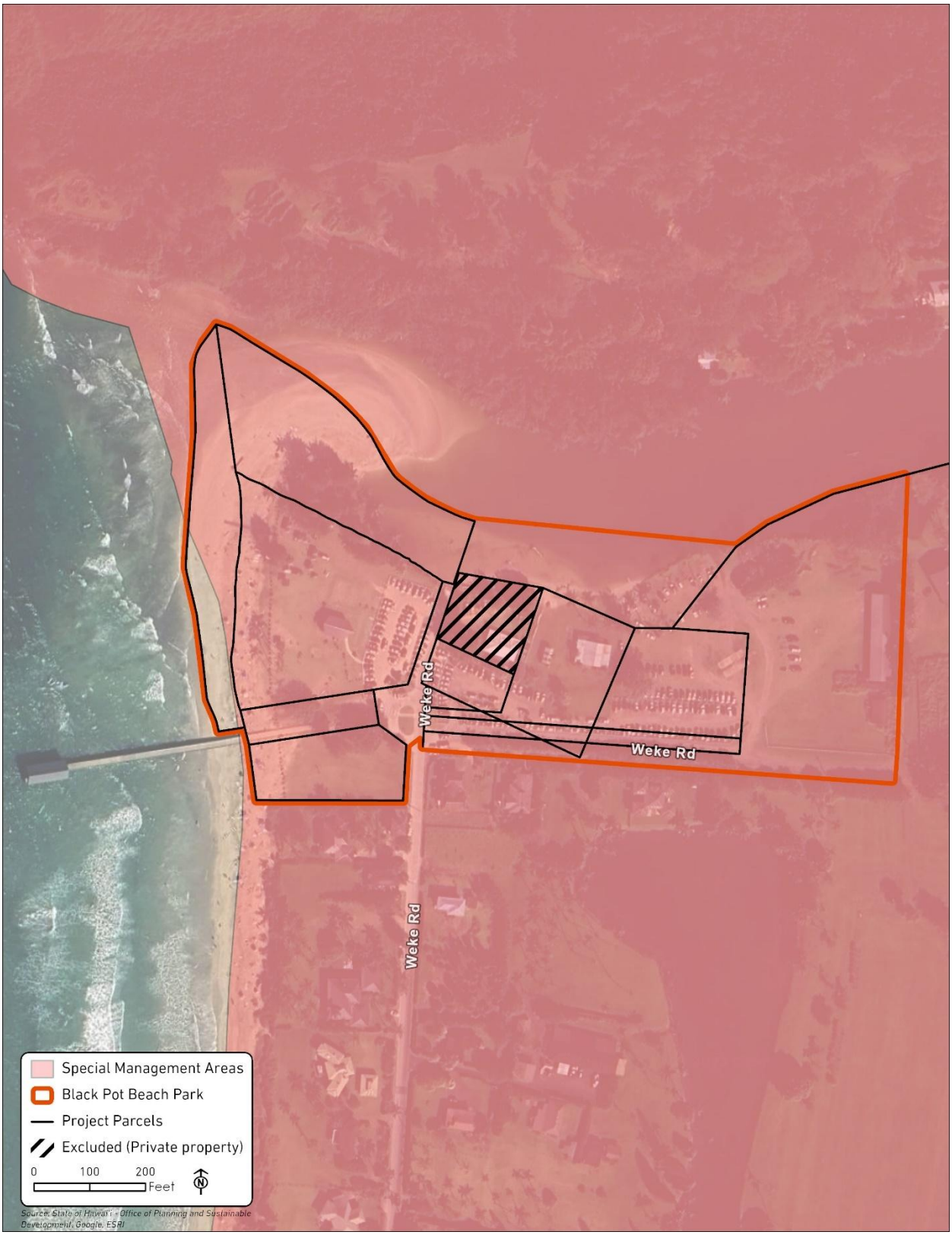


Figure 1-6 **Kaua'i County Special Management Area**

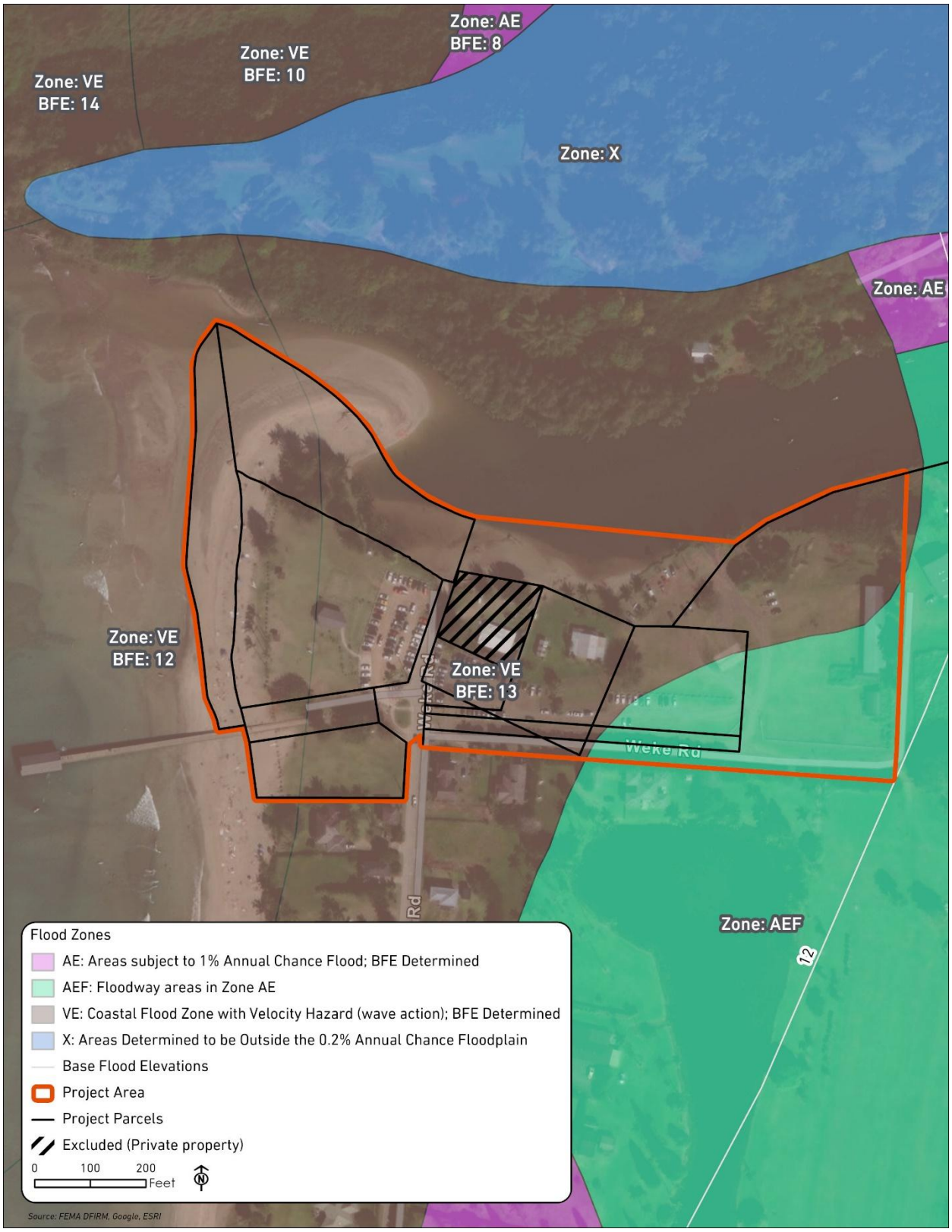


Figure 1-7 **FEMA Flood Zones**

Chapter 2

Description of the Project

Chapter 2

Description of the Project

2.1 Project Location and Characteristics

Black Pot Beach Park is located on the North Shore of Kaua'i, within the traditional ahupua'a of Hanalei, in the moku of Halele'a, on the island of Kaua'i (*Figure 2-1*). The beach park sits at the end of Weke Road and is nestled between the Hanalei River and Hanalei Bay. Adjacent to the beach park is Hanalei Bay to the north, open areas and residential properties to the south and west, and the Hanalei River and Hanalei Canoe Club to the east.

Historically, Black Pot Beach Park drew hundreds of people to its shores with its pristine location nestled between Hanalei Bay and Hanalei River. In the early 1900s, the steel-trussed bridge was constructed and enhanced access to the Hanalei area, which led to social and economic business growth in the North Shore area as noted in the 1916 Garden Island:

> *"Hanalei has been a popular and populous community as of late, a sort of suburb life of Lihue since there were many Lihue people summering there, the various beach houses being full to overflowing. Morning, noon, and nigh the wharf has been alive with enthusiastic but 'green' fishermen, mostly of a tender age, and the—sands dappled with figures in proper costume and the waters flecked with tumbling swimmers who mostly couldn't swim." (1000 Friends of Kauai, 1987, 63).*

Prior to the 1930s, Black Pot Beach Park was a busy commercial shipping hub with the construction of the Hanalei Pier. Following the 1930s, when commercial shipping at Hanalei Pier ended, the historic pier and surrounding beach area continued to be a focal recreational gathering space for the community. The beach area served as a recreational area for ocean activities including fishing, gathering limu and 'opihi, and hukilau harvests. Generational residents of Hanalei recall fond memories during the 1960s and 1970s when Henry Kalani Tai Hook would bring his large black cooking pot down to the beach and cook for everyone at the beach. The reputation of Uncle Tai's large pot was so powerful, people started calling the area Black Pot, leading to the official name of the beach park.

Black Pot Beach Park has an extended history in the Hanalei community. The beach park became an official County park after the community led efforts to protect the area from private development. Since the County acquired the beach front parcel fronting Hanalei Bay, the County acquired a number of the adjacent parcels, expanding the park boundaries. Today, Black Pot Beach Park encompasses approximately 13.7 acres comprised of TMK Parcels 4-5-001:002 [por.], 004, 008, 011, 033, 034, and 049 and three parcels with no TMK numbers (*Figure 1-2)*[1]. *Table 2-1* provides a detailed history of the County's acquisition and expansion of Black Pot Beach Park.

[1] Parcels 033, 034 & 49 have been condemned by the County and are now in the process of being conveyed to County ownership.

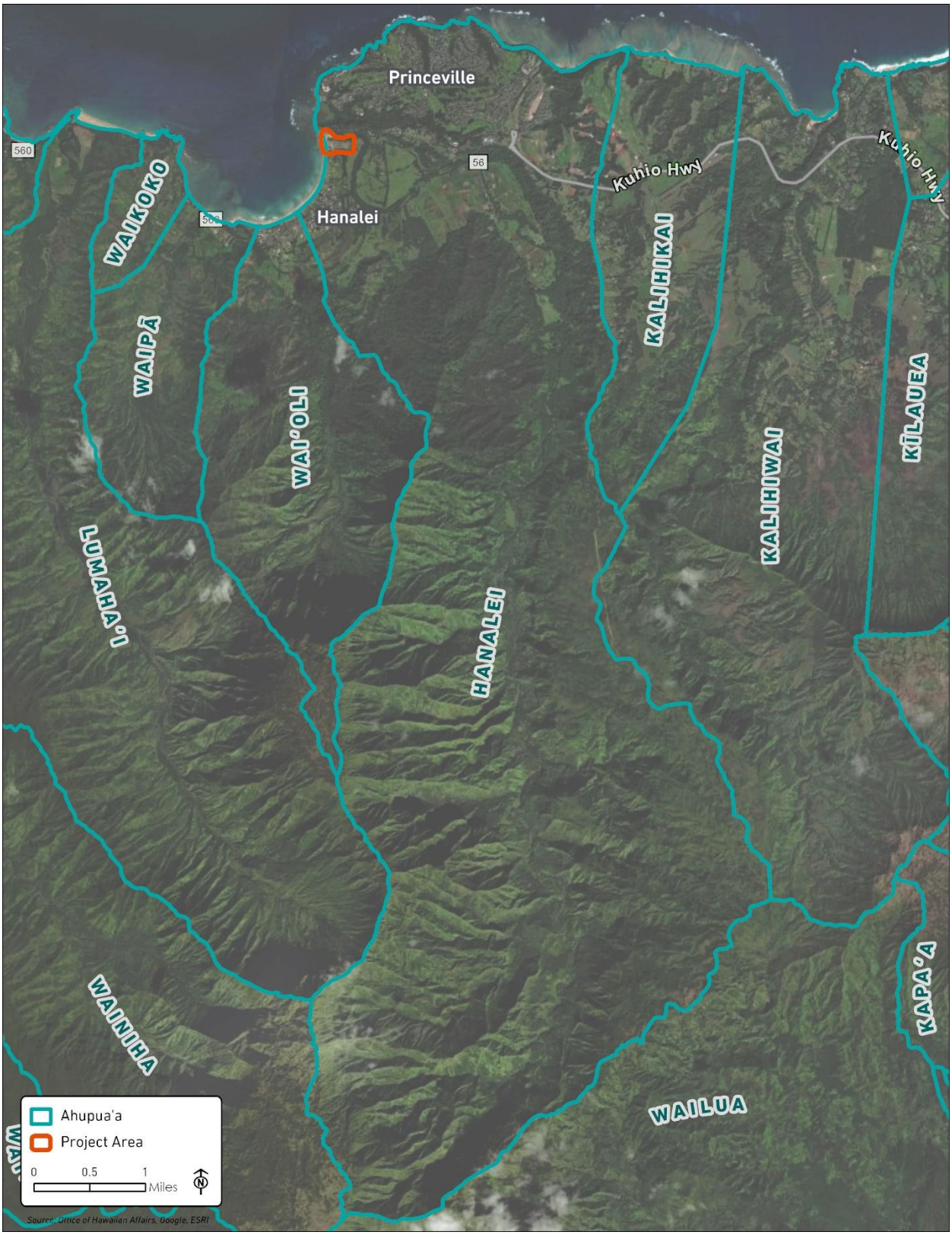


Figure 2-1 **Ahupua‘a Map**

Table 2-1: Black Pot Beach Park TMK Parcels			
TMK Parcel	**Acreage**	**Year Acquired**	**Parcel Description**
5-5-001:004	2.47	1973	Original park footprint
5-5-001:011	0.74	2010	Grassy shoreline parcel to the west of the historic pier
None	0.26	n/a	Approach to Weke Ramp
5-5-001:049	0.34	2014	Mauka of Weke Road
5-5-001:033[1]	0.92	2014	Contains abandoned Hanalei Canoe Clubhouse and Restroom Structure
5-5-001:034[1]	1.37	2019	Used for boat wash down and provides access to Hanalei River
5-5-001:002[1]	2.98	2019	Provides access to non-commercial boat ramp, boat trailer parking, and county storage shed
None	2.99	2008	Acquired via Executive Order 4227
5-5-001:008[2]	0.36		Easement allows beach access on State owned land
None[2]	1.29		Riverfront accreted lands

[1]The parcels have been condemned by the County and are now in the process of being conveyed to County ownership.

[2]Future County owned parcels

2.2 Existing Conditions

Black Pot Beach Park encompasses approximately 13.7 acres of land nestled between the Hanalei River and Hanalei Bay (*Figure 1-1)*. The beach park is generally flat and gently slopes up (mauka) from the shoreline. Landscaping at the park contains a mix of non-native plants including Ironwood, Tropical Amond, Palms, Coconuts, and Hau trees. With access to both the Hanalei River and Hanalei Bay, the beach park is a popular recreational space for the local community and visitors. Park users range from fishermen, surfers, canoe paddlers, boaters and jet ski operators, beach going families, and various community organizations.

In 2018, after an unprecedented flood caused extensive damage to the beach park, the County undertook recovery efforts to re-open the park. Recovery efforts totaled upwards of $6 million and included the re-construction of Weke Road, dredging and sand replenishment along the shoreline, construction of a new comfort station and roadway to the Weke Road boat ramp, paving of new parking areas and a drop-off area, and implementation of fencing, safety gates, and landscaping. Trees and brush uprooted and swept away were removed to enhance panoramic views of Hanalei Pier and Hanalei Bay. An additional 3 acres of land was filled at the mauka end of the river mouth which allowed for the construction of a new public boat ramp and improved access to the Hanalei River. A description of the existing conditions and facilities at the park is described below.

Boat Ramps

The park is equipped with two boat ramps providing access to the Hanalei River. The Weke Road boat ramp is a paved single-lane boat ramp that extends from Weke Road (*Figure 2-2)*. This boat ramp is reserved for licensed, commercial operators with permits, kayakers, and stand-up paddlers. Notably, as part of the 2018 flood recovery effort, a concrete accessway to the Weke Ramp was completed.

The boat ramp in the mauka portion of the park was acquired in 2019, as part of the expansion of the park, and provides a second public point of access to the Hanalei River. Prior to the acquisition, the Weke Road boat ramp was the only public point of access at Black Pot Beach Park. This boat ramp currently serves as the non-commercial recreational boat ramp. This boat ramp is an unpaved (composed of a mix of gravel and dirt) single-lane ramp (*Figure 2-3)*. This boat ramp is supported by a double-lane boat washdown facility, with a wastewater collection system (*Figure 2-4*). Parking for boat trailers is provided along the County storage shed (*Figure 2-5)*.



Figure 2-2 **Weke Road Boat Ramp**



Figure 2-3 **Non-Commercial Boat Ramp**



Figure 2-4 **Boat Washdown Area**



Figure 2-5 **Boat Trailer Parking Area**

Comfort Station and Other Existing Structures

Comfort Station

As previously discussed in *Section 2.1,* the County led recovery efforts to re-open the beach park after the unprecedented 2018 flood. As part of the recovery efforts, a new comfort station was installed in the makai portion of the park (*Figure 2-6).* The comfort station features restrooms and outdoor showers and is served by an underground individual wastewater treatment system. Prior to the installation of the comfort station, the restrooms at the beach park were known to malfunction or overflow. Notably, this is the one public facility for users at Black Pot Beach Park.



Figure 2-6 **Comfort Station**

Hanalei Canoe Club

The Hanalei Canoe Club was established in 1973 with its origins stemming from the Hanalei Hawaiian Civic Club as a method to keep kids busy and out of trouble. The Hanalei Canoe Club established its meeting grounds at Black Pot Beach Park in the early 1970s. The canoe club previously utilized an existing vacant single wall 2,200 square foot wooden frame building with an attached kitchen and restroom (*Figure 2-7 and Figure 2-8*). However, the Hanalei Canoe Club recently relocated their meeting grounds to an existing two-story wooden structure behind the County storage shed just outside the park boundaries. Since the relocation, the former facility within the beach park has fallen into a state of disrepair and is currently fenced off due to public safety concerns.

Covered Storage Shed & Picnic Pavilions

Located at the mauka boundary of the park is a covered pavilion storage shed and two enclosed structures that are vacant and have fallen into a state of disrepair (*Figure 2-9)*. The storage shed is currently utilized by the County as storage space. The two vacant dilapidated structures are connected to an individual wastewater treatment system.

As part of the flood recovery effort, several open-air shaded pavilion structures with picnic tables were installed throughout the beach park. These structures are popular amongst families and on the weekends.



Figure 2-7 **Vacant Wooden Structure and Attached Kitchen**



Figure 2-8 **Vacant Wooden Restroom**



Figure 2-9 **Covered Storage Shed**

Parking and Circulation

As part of the flood recovery efforts, Weke Road, which is the only roadway providing access to the beach park, was re-paved and the parking area was clearly defined and paved. The main parking lot extending from Weke Road can accommodate up to approximately 65 vehicles (*Figure 2-10*). The parking area is paved with gravel-coral surface with the exception of the accessible parking stalls that are concrete paved. A loading-unloading area to drop off beach gear and passengers is located within the main parking area. The second unpaved dirt/grassed parking area located along Wilikoki Place can accommodate up to approximately 100 vehicles (*Figure 2-11*). Prior to the parking improvements at the park, parkgoers often chose to park along the shoreline between the historic pier and the river mouth to be as close to the beach as possible. Notably, when both designated parking areas are at maximum capacity, overflow parking extends on to the grassy park area between the parking lot along Wilikoki Place and the Hanalei River.



Figure 2-10 **Parking Area Extending from Weke Road**



Figure 2-11 **Parking Area Along Wilikoki Place**

2.3 Purpose of the Project

The purpose of the project is to implement the 2021 Black Pot Beach Park Master Plan. Located at the mouth of the Hanalei River and fronting Hanalei Bay, the park serves as a central gathering place for residents and visitors on Kaua‘i’s North Shore and provides access to a wide range of recreational activities. Recognizing the cultural, recreational, and scenic value of this coastal resource, DPR undertook a community-based planning effort to develop a long-term vision for the park’s future use to accommodate existing uses and improve the user experience. The 2021 Master Plan establishes a framework to guide facility improvements in a manner that accommodates diverse recreational uses while maintaining the park’s local character and community significance. The County is planning to implement the facility improvements identified in the Master Plan to achieve these objectives.

2.4 Description of the Project

The 2021 Black Pot Beach Park Master Plan represents a community-based planning effort that honors the traditions and values of the Hanalei community while identifying facility improvements to accommodate existing uses and improve the user experience. The planning process included a series of community meetings and focused group discussions designed to gather public input and build consensus on the park’s future.

As part of this process, the CAC was established to facilitate communication between DPR and the community. The CAC consisted of approximately twenty members representing fishermen, surfers, canoe paddlers, boaters, jet ski operators, campers, beachgoing families, neighboring landowners, commercial and tourism interests, government agencies, and community organizations. The CAC contributed leadership, local knowledge, technical insight, and community perspective to help shape the park improvements in response to the needs and values of the Hanalei community.

The improvements identified in the 2021 Master Plan are intended to balance the various recreational uses of the park, enhance safety and accessibility, and improve the overall experience for both residents and visitors. DPR is planning to implement the facility improvements identified in the Master Plan shown in *Figure 2-12* and described in further detail below.

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Figure 2-12 **Conceptual Site Plan**

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New Comfort Station and Open-Air Pavilion

Since the County acquired the parcels surrounding the beach front parcel and expanded the park boundaries, a second comfort station is needed in the mauka portion of the park. This second comfort station, measuring approximately 1,163 square feet, will be ADA accessible and feature additional public restrooms. The second comfort station has been strategically located within the park to accommodate recreational activities in the mauka portion of the park and to reduce vulnerability from natural hazards. The second comfort station is located further inland and mauka of the shoreline, placing new development in areas less vulnerable to flooding and sea level rise. The second comfort station will be located within the floodway area (Zone AEF) with a base flood elevation (BFE) of 12 feet. The finished flood elevation (FFE) of the second comfort station will be established at 10 feet and will include flood proofing design measures including but not limited to floodway doors to account for the difference between the minimum BFE and FFE. Access to the second comfort station will be provided via a new ADA ramp. Bicycle parking spaces and accessible walkways will be completed to provide unobstructed access to the second comfort station.

A new open-air pavilion will be constructed within the central portion of the park (*Figure 2-12*). The pavilion is approximately 1,080 square feet and will accommodate family gatherings reflective of the history of traditional gatherings amongst the community. Additionally, small covered shaded picnic pavilions will be constructed throughout the park (*Figure 2-12).*

Improvements to Wilikoki Place Parking Area

To accommodate the second comfort station, the existing gravel parking lot running along Wilikoki Place will be reconfigured *(Figure 2-12*). The parking lot will provide approximately 88 paved un-marked parking spaces, four of which will be ADA-accessible. Access to this parking lot will be provided at via a new two-way driveway at the west end of the lot, providing drivers the option to enter the Weke Road parking lot or continue, and a new two-way driveway along Wilikoki Place, above the boat-turnaround entrance (*Figure 2-12).*

As recognized in the 2021 Master Plan, access to the main parking area will remain directly through the main driveway entrance from Weke Road to separate traffic associated with beach users and boaters.

As part of the reconfiguration of the Wilikoki Place parking area, the parking area will be paved with crushed coral to minimize stormwater runoff. Landscaping will be implemented around the perimeter of the parking area to complement the coastal setting. Concrete barriers will be placed along the perimeters of the parking area to prevent vehicles from driving across the grass. Appropriate signage will be installed to guide parking, circulation routes, traffic speeds, and promote pedestrian safety throughout the park. Appropriate signage will ensure access points and turnaround areas along Weke Road and Wilikoki Place are not blocked, and users can safely and adequately enter and exit the park. Overflow parking will be permitted near the trailer parking area during peak periods and events held at the park.

Storage Facility

The existing covered storage shed at the mauka end of the park will continue to be utilized as storage space by the County (*Figure 2-12)*. As recognized by the 2021 Master Plan, security barriers will be implemented around the storage shed. The existing driveway providing access to the storage shed will continue to be utilized by County personnel. The existing vacant structures adjacent to the storage shed will be demolished.

Demolition of the Existing Canoe Hale

The former Hanalei Canoe Club structure with an attached kitchen and restroom facility will be demolished (*Figure 2-7 and 2-8*). Since the Hanalei Canoe Club relocated its facilities mauka of the existing park, the former structures have remained in their original location and have fallen into a state of disrepair. As part of the improvements, the two vacant structures will be removed to increase open green space at the park.

Archaeological Preservation Area

As part of the County's expansion of Black Pot Beach Park in 2016, an archaeological inventory survey (AIS) was conducted, during which iwi kūpuna were identified within the project area. In consultation with the State Historic Preservation Division (SHPD) and the Kaua'i-Ni'ihau Island Burial Council (KNIBC), appropriate protocols were followed and the iwi kūpuna was respectfully reinterred in a protected location within the park.

As part of the planned improvements, the County will preserve the area of reinterment with an appropriate buffer and protective preservation measures. The County will continue to consult with SHPD, KNIBC, and other appropriate parties to maintain compliance with HRS Chapter 6E-8 and to uphold the cultural integrity and protection of the site.

Feasibility Study for the Non-Commercial Boat Ramp Improvements

The 2021 Master Plan identifies improvements to the non-commercial boat ramp located at the end of Wilikoki Place. Proposed measures include drainage upgrades at the boat ramp and washdown area, such as paving with porous materials and installation of water retention basins to reduce and filter stormwater before it enters the Hanalei River or Hanalei Bay. The plan also recommends creation of a designated loading area adjacent to the boat ramp to provide a safe and efficient space for fishermen to prepare and unload boats and equipment prior to launching. The loading area would be designed with sufficient width to accommodate two boats simultaneously, minimizing congestion during launching and docking. At this time, DPR is conducting a feasibility assessment to evaluate potential design options and implementation considerations for the non-commercial boat ramp improvements.

Installation of Appropriate Signage and Landscaping

As part of the park improvements, DPR will install appropriate signage to enhance circulation and safety and to minimize conflicts among the various park uses. DPR will continue to work with the community to develop and locate signage that clearly defines park entry points, provides circulation guidance, and promotes appropriate park behavior. Signage will comply with applicable County standards established in Kaua'i County Code §15-4.

DPR recognizes that maintaining open lawn areas is essential to preserving the park's recreational setting and supporting natural drainage functions that help reduce stormwater runoff and flooding. These open lawn areas and existing landscape features will continue to be maintained as part of ongoing park operations. In addition, new landscaping will be incorporated throughout the park to provide shaded gathering areas and enhance the park's natural character. The landscaping palette will feature native and Polynesian-introduced coastal species consistent with the 2021 Master Plan. Representative plantings are shown in *Figures 2-13* and *2-14*.

DPR is moving forward with implementation of the improvements identified in the 2021 Master Plan. Developed through extensive community engagement, the plan reflects the shared goal of maintaining Black Pot Beach Park as a safe, welcoming, and environmentally responsible public space. The planned improvements are intended to accommodate existing recreational uses, enhance environmental quality, and preserve the park's value for both residents and visitors for generations to come.

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TREE
Barringtonia
Barringtonia asiatica
NATURALIZED • PARK TREE



TREE
Hala
Pandanus tectorius
NATIVE • PARKING LOT TREE



TREE
Hau
Hibiscus tiliaceus
CANOE • PARKING LOT TREE



TREE
Kamani
Calophyllum inophyllum
CANOE • PARK TREE



TREE
Kou
Cordia subcordata
NATIVE • PARK TREE



TREE
Lonomea
Sapindus oahuensis
ENDEMIC • PARKING LOT TREE



TREE
Milo
Thespesia populnea
INDIGENOUS • PARK TREE



TREE
Tipu
Tipuana tipu
NATURALIZED • PARKING LOT TREE

Figure 2-13 **Proposed Landscape Palette**



TREE
Wiliwili
Erithryna sandwicensis
ENDEMIC • PARK TREE



PALM
Coconut, Niu
Cocos nucifera
CANOE • PARK



SHRUB
Akia
Wikstroemia uva-ursi
ENDEMIC



SHRUB
Naupaka
Scaevola taccada
INDIGENOUS



SHRUB
Pohinahina
Vitex rotundifolia
INDIGENOUS



GROUNDCOVER
Pau o Hiiaka
Jacquemontia sandwicensis
ENDEMIC



GROUNDCOVER
Pohuehue
Ipomoea pes-caprae subsp. *brasiliensis*
INDIGENOUS



GROUNDCOVER
Seashore Paspalum
Paspalum vaginatum
NATURALIZED

Figure 2-14 **Proposed Landscape Palette**

Chapter 3

Environmental Setting, Potential Impacts and Mitigation Measures

Chapter 3

Environmental Setting, Potential Impacts, and Mitigation Measures

This section describes the existing environmental setting and identifies potential effects of the 2021 Master Plan. Strategies to mitigate potential effects are identified throughout this section.

3.1 Climate

Existing Conditions

According to the University of Hawai‘i, Climate of Hawai‘i mapping tool, the average annual temperatures in Hanalei ranges between approximately 73°F and 76°F. The average monthly low temperature is around 65°F in February and the average monthly high temperature is around 79°F in August. Precipitation in the area is relatively high, with annual rainfall averaging approximately 82 inches. December through March are typically the rainier months averaging higher than normal amounts of rainfall recorded (Longman, 2024).

Anticipated Impacts and Proposed Mitigation

The project is not anticipated to affect rainfall or climate conditions in the project area or greater Hanalei region. The park improvements have been designed to standards appropriate to the Hanalei region and no further mitigation related to climate is proposed.

3.2 Topography

Existing Conditions

The project site is generally flat with a slight slope towards the Hanalei River and Hanalei Bay. Elevations at the project site range from sea level feet at the shoreline and riverbank to approximately 6 feet above mean sea level (msl) in the mauka portion of the park (*Figure 3-1).*

Anticipated Impacts and Proposed Mitigation

The construction of the project will involve limited site work for the identified improvements. A Grading Permit will be obtained prior to the start of construction, and contractors will adhere to applicable provisions of the Kaua‘i County Sediment and Erosion Control Ordinance No. 808 (Chapter 22, Article 7 of the Kaua‘i County Code), DOH Water Quality Standards (HAR §11-54), and Water Pollution Control Requirements (HAR §11-55). Construction-related Best Management Practices (BMPs) will be implemented to minimize soil erosion and other pollutants from entering nearshore coastal areas. BMPs include, but are not limited to, phasing of construction activities, inspection of equipment to ensure equipment is operating properly, proper storage of equipment away from water bodies, replacing ground cover of disturbed areas, providing adequate water sources at the site, and the use

of temporary silt fencing and screens. The project is not anticipated to affect the topography of the site, and the park will maintain the existing slope towards the shoreline and riverbank.

3.3 Soils

Existing Conditions

Soil types within the project site are identified in the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey. The USDA NRCS system classifies soils by type and permeability characteristics, including run-off and erosion. The project site consists of Beaches (BS) (approximately 2 acres) and Mokuleia fine sandy loam, 0-2 percent slopes (Mr) (approximately 10 acres) (NCRS, n.d.) (*Figure 3-2)*. Mokuleia fine sandy loam is a well-draining soil series with moderate permeability and very runoff (NCRS, 2001).

Anticipated Impacts and Proposed Mitigation

The construction of the project will involve limited land disturbing activities for the identified improvements. A Grading Permit will be obtained prior to the start of construction, and contractors will adhere to applicable provisions of the Kaua‘i County Sediment and Erosion Control Ordinance No. 808 (Chapter 22, Article 7 of the Kaua‘i County Code), DOH Water Quality Standards (HAR §11-54), and Water Pollution Control Requirements (HAR §11-55) to control soil erosion and sedimentation. Construction-related BMPs will be implemented to minimize potential adverse effects from land disturbing activities. BMPs include, but are not limited to, phasing of construction activities, inspection of equipment to ensure equipment is operating properly, proper storage of equipment away from water bodies, replacing ground cover of disturbed areas, providing adequate water sources at the site, and the use of temporary silt fencing and screens. Upon completion of construction, the park will be stabilized with appropriate vegetative ground cover. It is not anticipated that the project will adversely affect existing soils covering the park site.

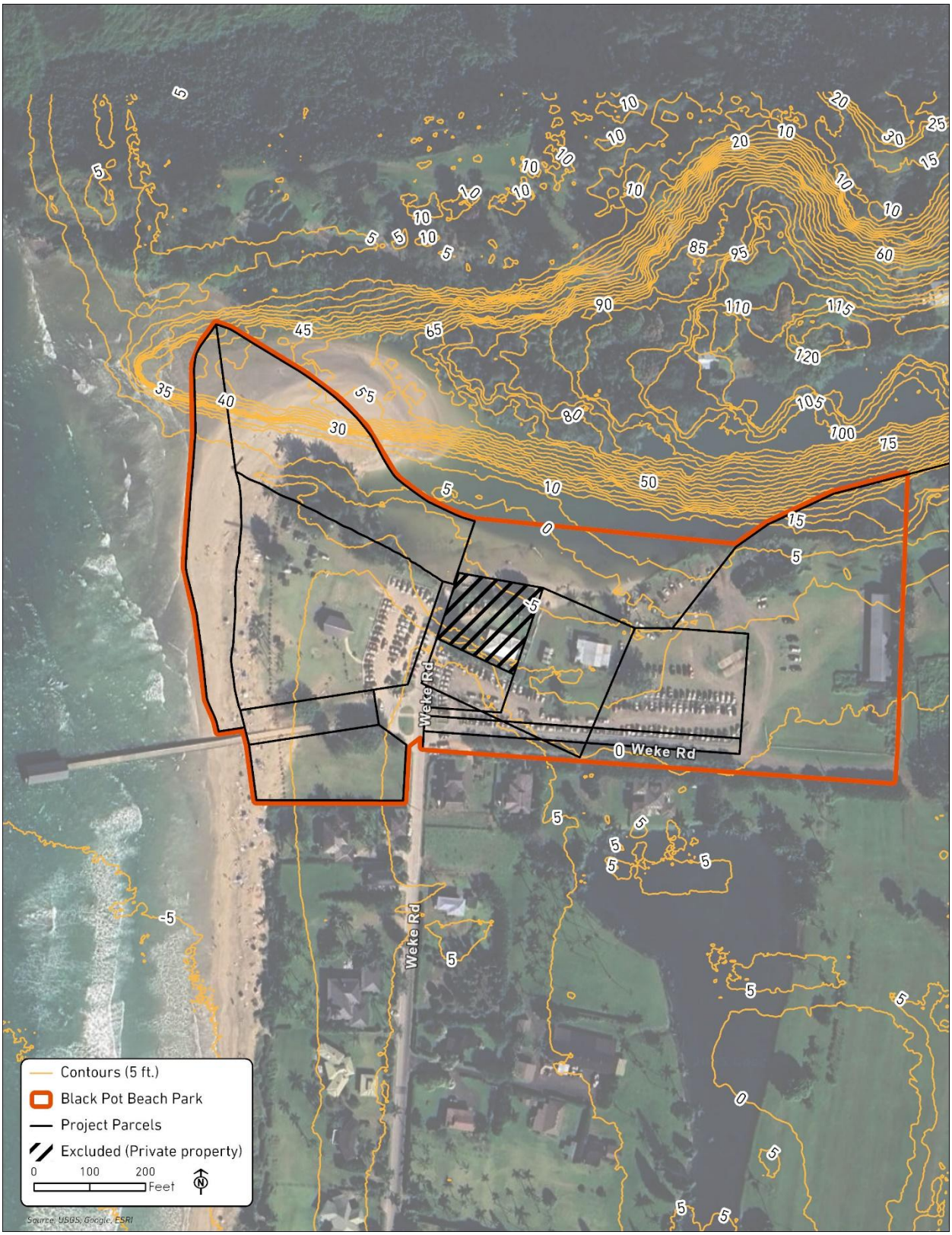


Figure 3-1 **Topographical Map**



Figure 3-2 **Soil Map**

3.4 Drainage

A *Preliminary Infrastructure Assessment* for the Black Pot Master Plan Improvements was prepared by G70 in November 2025 and is attached in *Appendix B.*

Existing Conditions

Black Pot Beach Park has one grated trench drain serving the boat washdown area. This drain appears to connect to the nearby Individual Wastewater System (IWS).

Surface water at the beach park flows mauka to makai into the Hanalei River. Stormwater runoff at the park either percolates into the grassy park area or flows overland in the makai direction following the existing grade of the site.

Anticipated Impacts and Proposed Mitigation

The construction of the project will involve limited land disturbing activities for the implementation of the identified improvements. A Grading Permit will be obtained prior to the start of construction, and contractors will adhere to applicable provisions of the Kaua'i County Sediment and Erosion Control Ordinance No. 808 (Chapter 22, Article 7 of the Kaua'i County Code), DOH Water Quality Standards (HAR §11-54), and Water Pollution Control Requirements (HAR §11-55) to control soil erosion and sedimentation. Construction-related BMPs will be implemented to minimize potential adverse effects from land disturbing activities. BMPs include, but are not limited to, phasing of construction activities, inspection of equipment to ensure equipment is operating properly, proper storage of equipment away from water bodies, replacing ground cover of disturbed areas, providing adequate water sources at the site, and the use of temporary silt fencing and screens.

The project has been carefully designed to maintain the natural park setting and will result in a negligible increase in impervious surface area. The parking area along Wilikoki Place will be paved with pervious surface material to minimize runoff. Maintaining natural open space areas and minimizing impervious surface pavement will minimize an increase in runoff. With design strategies to minimize runoff, the project is not anticipated to increase runoff nor affect properties downstream due to the location of the park nestled between the Hanalei River and Hanalei Bay.

3.5 Natural and Manmade Hazards

The following section describes the vulnerability of natural and manmade hazards at Black Pot Beach Park. The Applicant acknowledges that the County is in the process of updating the Multi-Hazard Mitigation and Resilience Plan. Relevant information from the 2021 Multi-Hazard Mitigation and Resilience Plan is discussed in this section.

3.5.1 Wildfire

Existing Conditions

In the State of Hawai'i, wildfires are most prominent in developed areas, alongside roadways, and near infrastructure that abuts undeveloped areas. Most wildfires are caused by human error or arson especially near developed areas, power line right of ways, roadsides, and sprawling dry nonnative grasslands surrounding communities. Once ignited, wildfires can spread rapidly through and around residential areas, threatening both property and life. Wildfires in lesser developed areas, fallow

agricultural lands, and in areas of higher elevation can also spread and threaten natural areas and native and protected species. (Hawai‘i Wildfire Management Organization, 2024).

Wildfire ignition and spread on the Island of Kaua‘i follows the statewide pattern with the majority of wildfires caused by human error or arson, especially near developments, power line right of ways, and along roadsides (Hawai‘i Wildfire Management Organization, 2024). Wildfire incidents on Kaua‘i between 1998 to 2012 are shown in *Figure 3-3.* While wildfires have been recorded in various communities on the Island of Kaua‘i, *Figure 3-4* maps the highest concentration of wildfire ignitions across the island.

According to the 2021 Multi-Hazard Mitigation and Resilience Plan, between 2011 and 2019, a total of 15 wildfires have been recorded (*Table 3-1)*.

Table 3-1: Wildfires from 2011 to 2019

Date Started	Area	Acres Burned	Impacts
08/17/2011	Kōloa	50	Dry brush burned; 2 homes burned, 3 damaged, 8 people left homeless
05/28/2012	Na Pali-Kona Forest Reserve	40	Dry grass and slash pine burned
06/25/2012	West of Waimea Canyon State Park	650	Dry brush and eucalyptus burned
08/17/2012	Near Kekaha	3,000	Dry brush burned; power poles destroyed
09/21/2013	Near Wailua	42	Brush burned
12/22/2014	Near Anahola	25	Dry brush burned; residents evacuated
03/23/2015	Waimea Canyon Drive	200	Dry brush burned
03/31/2015	Kōloa	100	Dry brush burned
05/19/2015	Hanamā‘ulu	70	Dry brush burned
06/05/2015	Pōki‘i Ridge	400	Dry brush burned
07/18/2015	Behind Līhu‘e Airport	40	Brush burned; diverted 3 flights to Honolulu
05/15/2017	Above Waimea town	750	Dry grass and shrubs burned
09/24/2017	Near Po‘ipū	215	Dry brush burned; base-yard machinery, trucks, and equipment damaged
09/25/2017	Makana Mountain	100	Dry brush and vegetation burned
06/11/2019	Near Po‘ipū	500	Dry brush burned; residents evacuated; roads closed

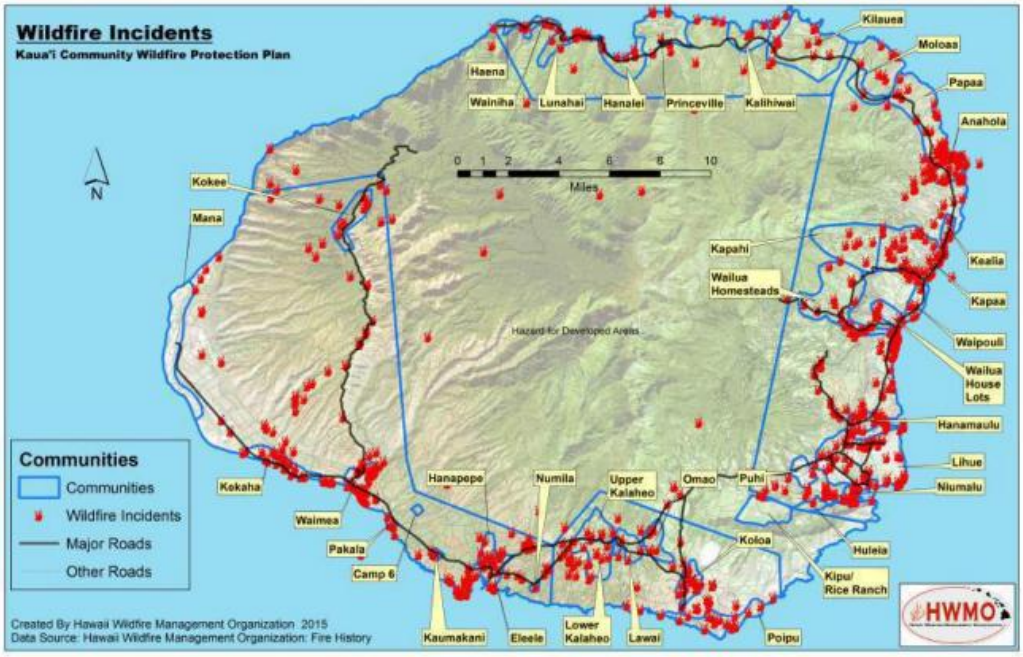


Figure 3-3 **Past Wildfire Incidents**

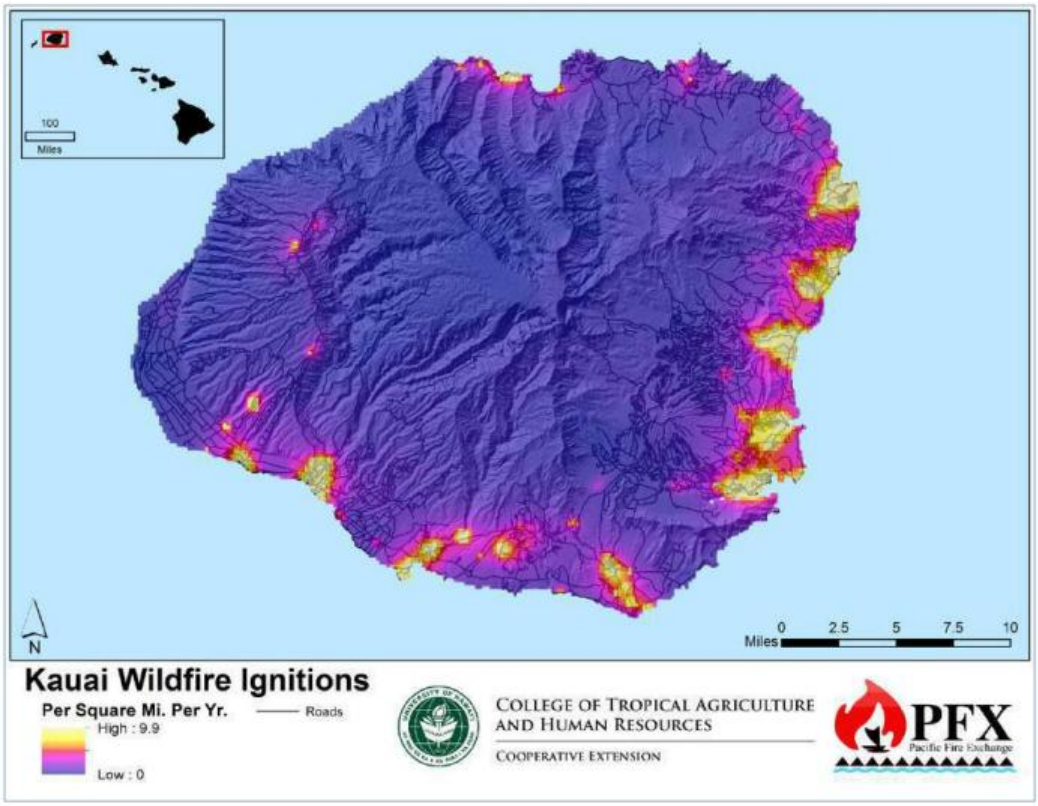


Figure 3-4 **Kaua'i Wildfire Ignition Density**

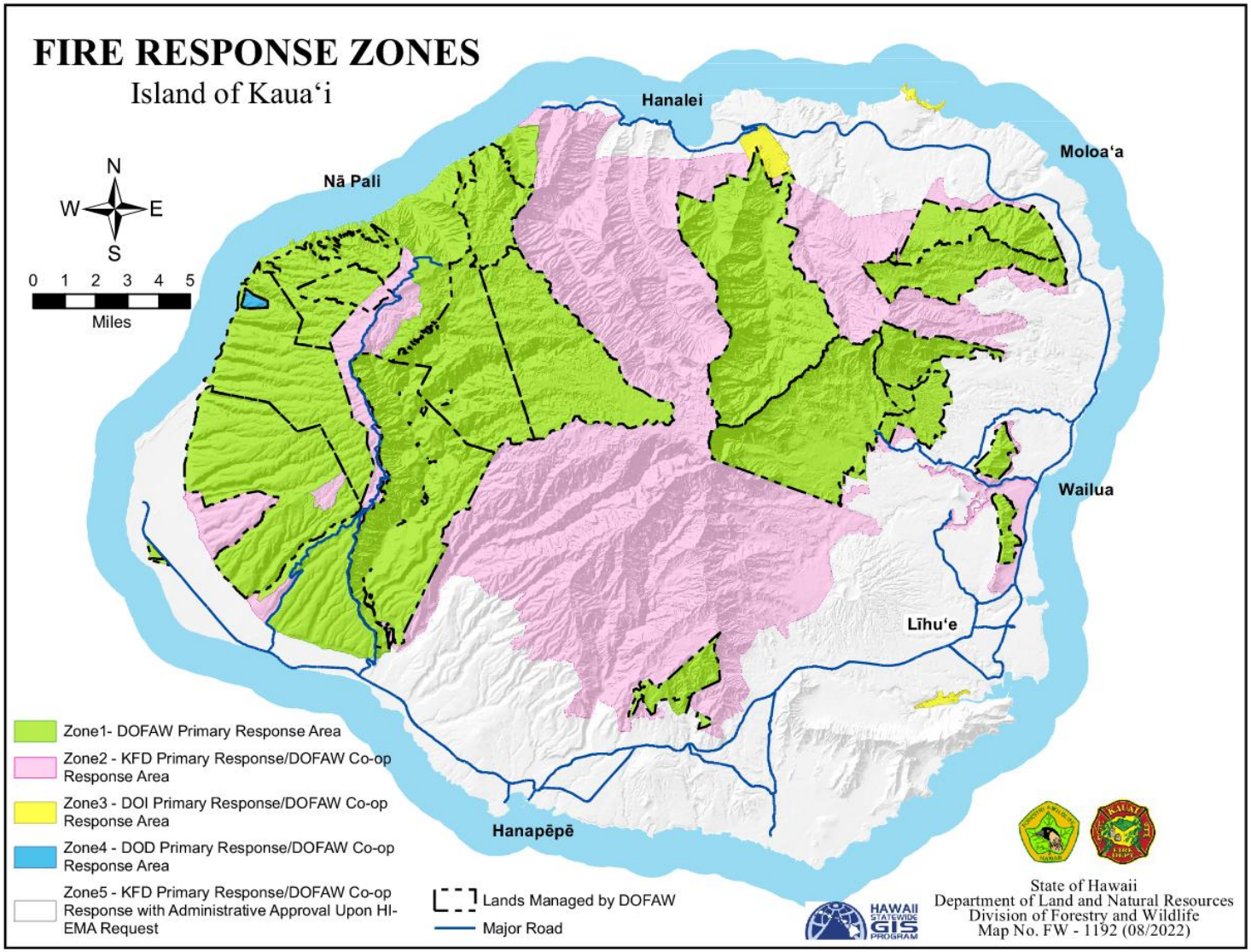


Figure 3-5 **Kaua'i Fire Response Zones**

The Kaua'i Fire Department (KFD) is responsible for responding to wildfires. KFD is equipped with eight fire stations throughout the island. Additionally, the Department of Land and Natural Resources-Division of Forestry and Wildlife (DLNR DOFAW) responds to wildfire events on state lands and provides additional wildland fire fighting assistance when state lands are threatened. *Figure 3-5* maps fire response zones island-wide. Given Kaua'i County's widely distributed population, response times can be long, and the weight of response (number of firefighters and engines) can be limited. Moreover, the County has many areas where the roads accessing communities and residential clusters do not meet road width emergency access standards (to allow residential population evacuation and incoming emergency apparatus) and alternative access routes are not always available.

In the State of Hawai'i, DOFAW identifies wildfire risk ratings throughout existing communities. As shown in *Figure 3-6*, the project site is located in a low-risk area for wildfire ignition and spread.

Anticipated Impacts and Mitigation Measures

The construction for the project is not anticipated to increase the risk of wildfire in the project area or greater region. Contractors will ensure construction-related equipment is properly stored to prevent the risk of a wildfire breakout. Appropriate BMPs will be implemented to mitigate the increased risk of wildfire ignition and may include but not limited to minimizing flammable sources during construction and maintaining flammable materials such as grasses and low-hanging branches. Should a fire break out during the short-term construction period, the KFD will be contacted immediately.

As part of the park improvements, landscaping comprised of native and Polynesian-introduced coastal species will be implemented. Landscaping will be carefully selected to include native Hawaiian drought-tolerant plants to minimize the risk of wildfire ignition and spread. In the event of a wildfire at the park or greater Hanalei region, KFD will be contacted immediately to extinguish the fire and ensure individuals are safely evacuated. In the long term, the project is not anticipated to increase the risk of wildfire in the project area or greater region.

3.5.2 Hurricanes, Tropical Storms, and Other High Winds

Existing Conditions

According to the 2021 Multi-Hazard Mitigation and Resilience Plan, the Island of Kaua'i experiences three types of high winds: trade winds, kona winds, and tropical cyclones. Trade winds are the most common winds, recorded at 10 to 25 miles per hour (mph) traveling from the northeast or east-northeast direction. Kona winds are rain-bearing winds traveling from the southwest or south-southwest direction. Strong Kona winds occur when a low-pressure system is located within 500 miles northwest of the islands.

Hurricanes and tropical storms are both categorized as tropical cyclones. Tropical cyclones originate over tropical waters with a well-defined center of closed surface wind circulation. A hurricane is a tropical cyclone which sustains surface winds of 64 knots (74 mph) or more. Tropical storms are categorized as an organized system of strong thunderstorms with defined circulation and maximum sustained winds of 39 to 73 mph.

Prior to the 1950s, little was recorded of hurricanes striking Hawai'i. The only documented hurricane before 1950 was the Kohala Cyclone of 1871 which was believed to be a minimal hurricane that affected Maui and Hawai'i Island. Beginning in the 1950s, hurricanes throughout the State were recorded. Since the 1950s, a total of eight hurricanes has had a direct impact on the Hawaiian Islands and 17 others have posed a threat by their passage. *Figure 3-7* tracks storms in the vicinity of the Hawaiian Islands from 1950 to 2020.

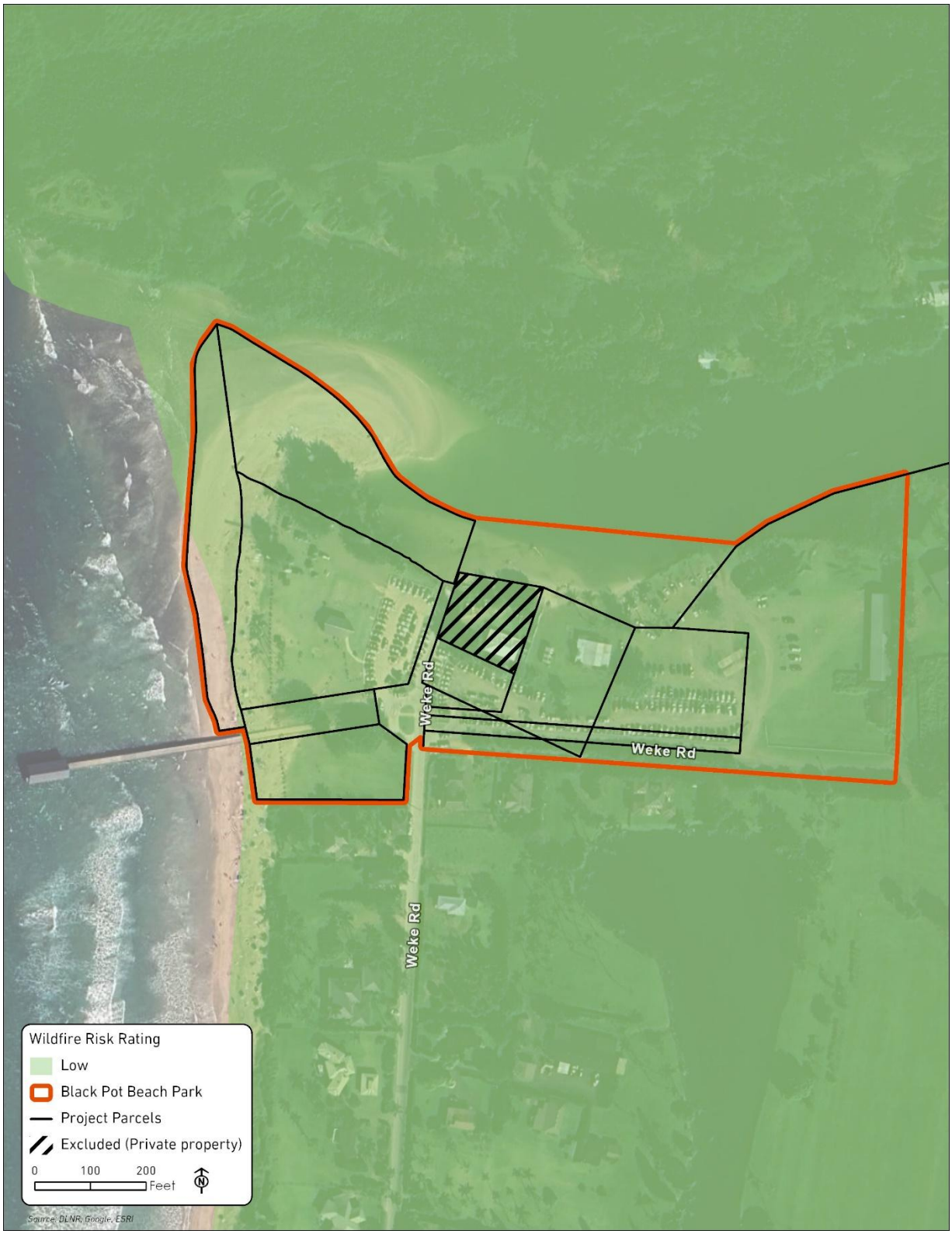


Figure 3-6 **Wildfire Risk Rating**

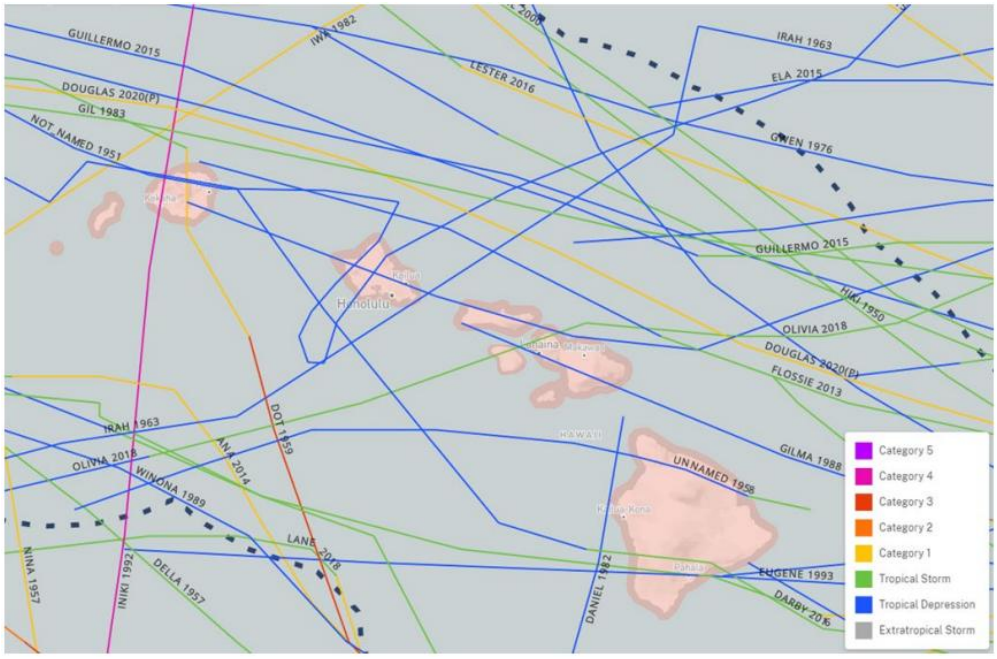


Figure 3-7 **Past Hurricanes**

Hurricane Dot was the first recorded hurricane to pass Kaua‘i in 1959. The center of Hurricane Dot passed directly over Līhu‘e, with wind gusts recorded at 75 mph, while other parts of the island saw wind speeds up to 104 mph. Hurricane Dot blew off roofs, uprooted trees and knocked down utility lines around the island. Roadways were blocked, stream and river levels rose with torrential downpours, and high waves pounded the shoreline. In 1982, Hurricane Iwa impacted both Kaua‘i and Ni‘ihau with wind gusts exceeding 100 mph and storm surge recorded at 30 feet. Hurricane Iniki was the most destructive hurricane to strike Hawai‘i in the 20th century. Wind gusts were recorded between 130 and 160 mph. The eye of the storm crossed the coast in the Waimea area and departed over Hā‘ena about 40 minutes later. Hurricane Iniki affected more than 14,000 homes, destroying 1,421 and causing major damage to 5,152 homes.

Anticipated Impacts and Mitigation Measures

The project is not anticipated to increase the threat of hurricanes, tropical storms, or other high wind events. The park improvements have been designed to standards appropriate to the beach park location and include design measures to minimize damage from natural disasters. The second comfort station has been strategically located further inland and mauka from its original identified location in the 2021 Master Plan to reduce its exposure to natural hazards. The second comfort station has been relocated from the Coastal High Hazard Area (Flood Zone VE) to the Floodway Area (Zone AEF). The FFE of the second comfort station will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE.

In the event of a hurricane, DPR will evacuate the park, work with community organizations to secure and gather their belongings and close the park to the public. Should shelter be needed during evacuation, the nearest emergency shelter is Kilauea Elementary School, located approximately 9.0 miles away from the beach park. Cautionary measures will be employed in the event of a hurricane warning to ensure the public is safe.

3.5.3 Earthquakes

Existing Conditions

An earthquake is the vibration of earth's surface following a release of energy in the Earth's crust. This energy can be generated by a sudden dislocation of the crust, a volcanic eruption, or a volcano mass settling on the ocean floor. The majority of earthquakes in Hawai'i are related to volcanic activity, particularly to the movement of magma beneath Kīlauea and Mauna Loa, Hawai'i island. Other earthquakes are the result of exerted pressures released by magma that never reaches the surface. Earthquakes pose hazards to life safety and critical infrastructure including buildings, roads, bridges, and utilities. Based on the United States Geological Survey (USGS) National Seismic Hazard Model for Hawaii Map, the County of Kaua'i has the lowest expected ground acceleration in the State (*Figure 3-8).*

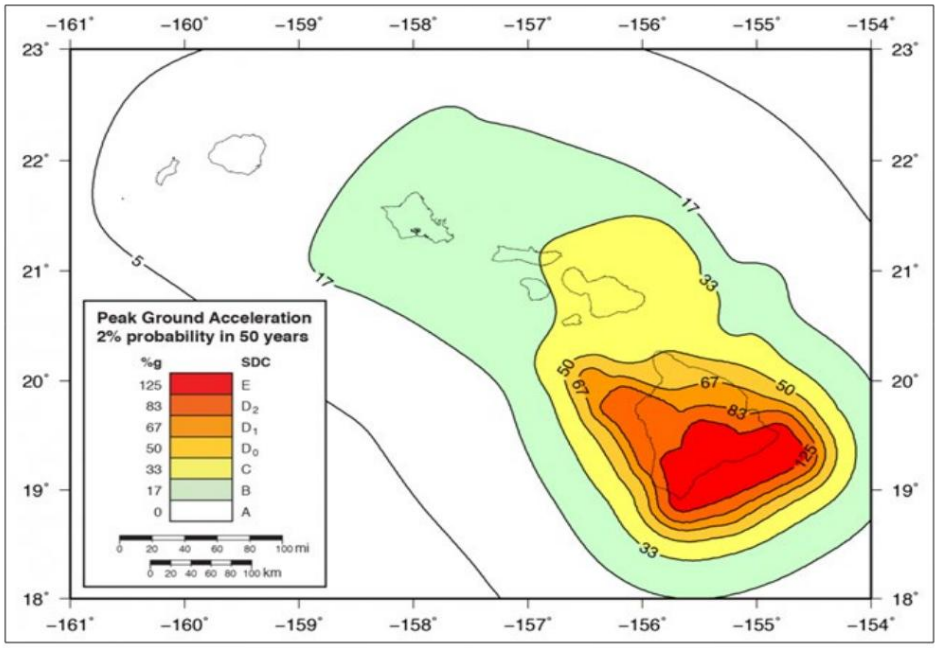


Figure 3-8 **USGS Ground Acceleration Map**

Anticipated Impacts and Mitigation Measures

The construction for the project is not anticipated to increase the project area's vulnerability to an earthquake. Construction activity will cease if such an event occurs. The park improvements will be built in accordance with building standards articulated in Chapter 12 of the Kaua'i County Code. Following proper design requirements, damage from an earthquake and potential harm to the public will be minimized.

3.5.4 Tsunami

Existing Conditions

A tsunami is a series of high-energy waves that radiate outward from an area where a generating event occurs. The waves arrive at shorelines over an extended period. Tsunamis are classified as local or distant. Locally generated tsunamis have minimal warning times, leaving little time for response.

Distant tsunamis may travel for hours before striking a coastline, giving a community a chance to implement more detailed evacuation plans.

Based on the availability of recorded data, Hawai'i encompasses several phases of recorded tsunamis. During the 19th century, numerous tsunamis were reported in newspapers, weeklies, and books. The cause of tsunamis was not generally known, nor was the origin in terms of whether the tsunami was the result of a distant seismic event or a local submarine landslide. Toward the end of the 19th century, seismological stations were available to record and locate earthquakes. Through the establishment of seismological stations, distant earthquakes with tsunamis became easier to track. Additionally, with the establishment of the Hawaiian Volcano Observatory in 1912, the technology to accurately determine the original and causes of earthquakes and tsunamis from the islands became available.

On the island of Kaua'i, a total of 26 tsunamis has made landfall with eight causing significant damage. *Table 3-2* and *Figure 3-9* depict tsunamis recorded on Kaua'i.

Table 3-2: Tsunamis Recorded on Kaua'i

Date	Place of Observation	Source	Meters	Damage
08/14/1868	Waimea	Chile	1.8	Sank ships, carried ships inland
06/15/1896	Kapa'a, Kīlauea, Nāwiliwili	Japan	1.5	Boats stranded/landed, road and bridge flooded
03/02/1933	Lāwa'i, Moloa'a	Japan	N/A	None recorded
04/01/1946	Hā'ena, Hanalei, Kīlauea, Moloa'a, Hanapēpē, Waimea	Eastern Aleutian Islands	13.7	Destroyed homes, trees, boat launch, shifted buoys, washed tug against breakwater
11/04/1952	Hanapēpē	Kamchatka	N/A	None recorded
03/09/1957	Nāwiliwili, Kīlauea, Wainiha, Hā'ena	Central Aleutian Islands	16.2	Destroyed bridges, flooded highways, homes destroyed or badly damaged, sampans disabled
05/22/1960	Waimea, Hanapēpē, Po'ipū, Nāwiliwili, Kapa'a, Kīlauea, Hā'ena	Chile	N/A	Minor damage
03/28/1964	Nāwiliwili, Kapa'a, Moloa'a, Hanalei, Hā'ena	Gulf of Alaska	N/A	None recorded
06/22/1977	Nāwiliwili	Tonga Trench	< 0.1	None recorded
12/12/1979	Nāwiliwili	Ecuador	0.04	None recorded
05/07/1986	Kapa'a, Hanalei, Nāwiliwili	Aleutian Islands	0.6	None recorded
11/30/1987	Nāwiliwili	Alaska	0.06	None recorded
10/04/1994	Nāwiliwili, Port Allen	Kuril Islands	0.18	None recorded
11/15/2006	Hanalei, Nāwiliwili	Kuril Islands	0.44	None recorded

Table 3-2: Tsunamis Recorded on Kauaʻi				
Date	**Place of Observation**	**Source**	**Meters**	**Damage**
03/11/2011	Anahola, Hanamāʻulu, Keālia, Kīlauea, Moloaʻa, Nāwiliwili	Japan	5.18	Minor damage
10/28/2012	Hanalei, Nāwiliwili	British Colombia	0.19	None recorded
04/01/2014	Hanalei, Nāwiliwili	Northern Chile	0.15	None recorded
09/16/2015	Hanalei, Nāwiliwili	Central Chile	0.14	None recorded
01/23/2018	Hanalei, Nāwiliwili	Gulf of Alaska	0.13	None recorded

The most devastating tsunamis to hit the island of Kauaʻi were in 1946 and 1957. The tsunami of 1946 originated in the Aleutian Islands, struck Kauaʻi without warning and killed 17 people, destroyed homes, natural resources and built infrastructures, and damaged boats. Moloaʻa, Kīlauea, and Waimea recorded wave heights of 13.7 meters (45 feet). The tsunami of 1957 also originated in the Aleutian Islands and destroyed or damaged infrastructure, homes, and boats. The highest measured wave was 16.2 meters (53 feet) at Wainiha Bay on the north shore.

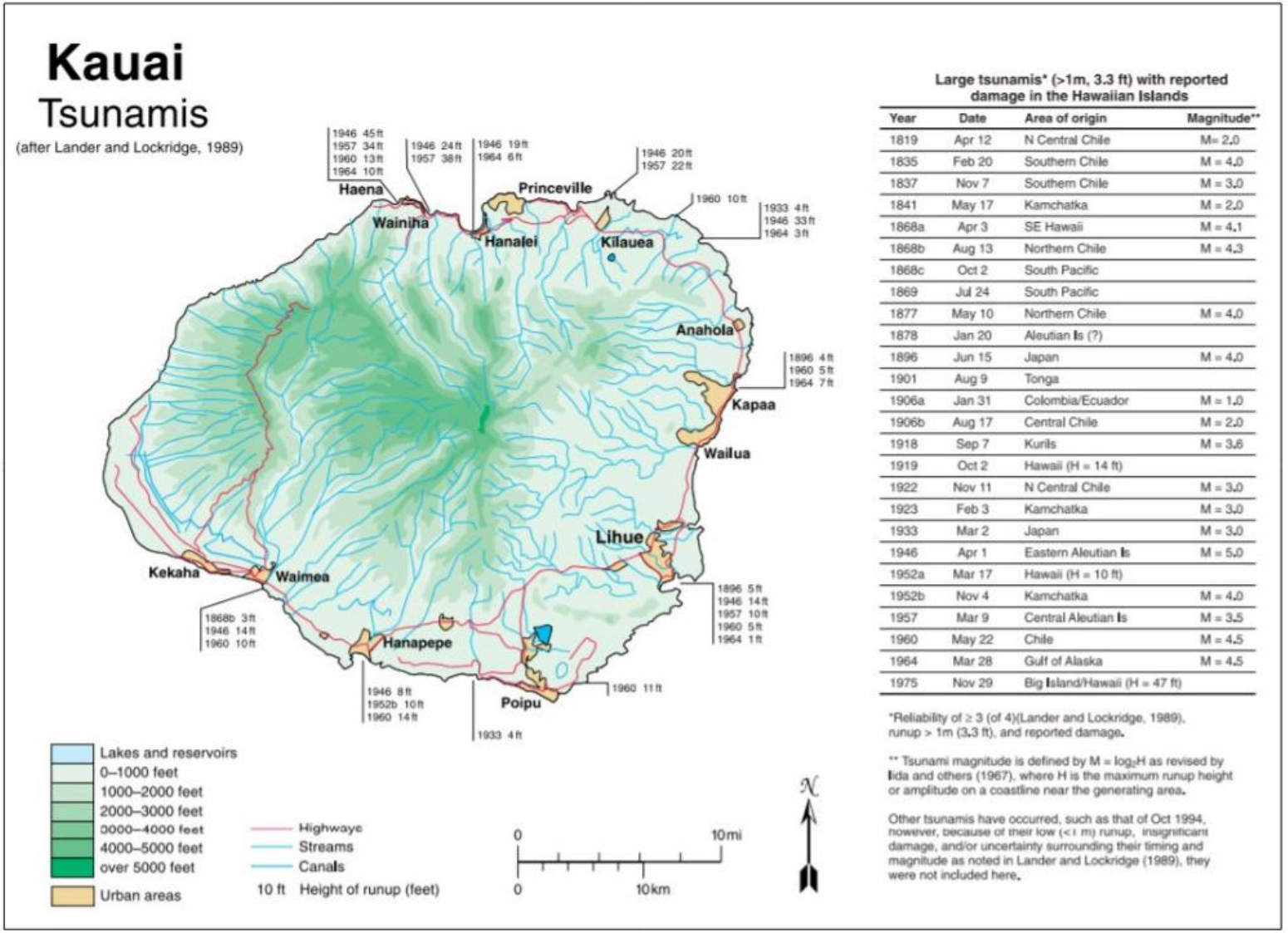
The County of Kauaʻi classifies tsunami evacuation zones into the following three designations: Tsunami Evacuation Zone, where evacuation is required for any tsunami warning; Extreme Tsunami Evacuation Zone, where additional areas must be evacuated only during an extreme tsunami; and, safe areas that are anticipated to be outside the inundated area. According to the County of Kauaʻi Tsunami Evacuation Zone Maps, the project site is located in the Tsunami Evacuation Zone (*Figure 3-10).* Additionally, the Federal Emergency Management Agency (FEMA) flood studies were conducted to determine tsunami inundation limits. Tsunami inundation limits for the project area are shown in *Figure 3-11.*

Anticipated Impacts and Mitigation Measures

The construction of the project is not anticipated to increase the project area's vulnerability to a tsunami event. Construction activity will cease if the island is under the threat of a tsunami.

The park improvements have been designed to standards appropriate to the beach park location and include design measures to minimize damage from a natural disaster. The second comfort station has been strategically located further inland and mauka from its original identified location in the 2021 Master Plan to reduce its exposure to natural hazards. The second comfort station has been relocated from the Coastal High Hazard Area (Flood Zone VE) to the Floodway Area (Zone AEF). The FFE of the second comfort station will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE.

Should the State or the County be under the threat of a tsunami, Civil Defense emergency warning systems will be activated, boaters will be advised to move vessels at least 50 fathoms (300 feet) deep and 2 miles away from harbor entrances, and residents will be encouraged to safely evacuate to a shelter at a higher elevation. Additionally, DPR will evacuate the park, work with community organizations to secure and gather their belongings and close the park to the public. Should shelter be needed during evacuation, the nearest emergency shelter is Kilauea Elementary School, located approximately 9.0 miles away from the beach park. Cautionary measures will be employed in the event of a tsunami warning to ensure the public is safe.



Large tsunamis* (>1m, 3.3 ft) with reported damage in the Hawaiian Islands

Year	Date	Area of origin	Magnitude**
1819	Apr 12	N Central Chile	M= 2.0
1835	Feb 20	Southern Chile	M = 4.0
1837	Nov 7	Southern Chile	M = 3.0
1841	May 17	Kamchatka	M = 2.0
1868a	Apr 3	SE Hawaii	M = 4.1
1868b	Aug 13	Northern Chile	M = 4.3
1868c	Oct 2	South Pacific	
1869	Jul 24	South Pacific	
1877	May 10	Northern Chile	M = 4.0
1878	Jan 20	Aleutian Is (?)	
1896	Jun 15	Japan	M = 4.0
1901	Aug 9	Tonga	
1906a	Jan 31	Colombia/Ecuador	M = 1.0
1906b	Aug 17	Central Chile	M = 2.0
1918	Sep 7	Kurils	M = 3.6
1919	Oct 2	Hawaii (H = 14 ft)	
1922	Nov 11	N Central Chile	M = 3.0
1923	Feb 3	Kamchatka	M = 3.0
1933	Mar 2	Japan	M = 3.0
1946	Apr 1	Eastern Aleutian Is	M = 5.0
1952a	Mar 17	Hawaii (H = 10 ft)	
1952b	Nov 4	Kamchatka	M = 4.0
1957	Mar 9	Central Aleutian Is	M = 3.5
1960	May 22	Chile	M = 4.5
1964	Mar 28	Gulf of Alaska	M = 4.5
1975	Nov 29	Big Island/Hawaii (H = 47 ft)	

*Reliability of ≥ 3 (of 4)(Lander and Lockridge, 1989), runup > 1m (3.3 ft), and reported damage.

** Tsunami magnitude is defined by $M = \log_2 H$ as revised by Iida and others (1967), where H is the maximum runup height or amplitude on a coastline near the generating area.

Other tsunamis have occurred, such as that of Oct 1994, however, because of their low (<1 m) runup, insignificant damage, and/or uncertainty surrounding their timing and magnitude as noted in Lander and Lockridge (1989), they were not included here.

Figure 3-9 **Tsunamis Recorded on Kaua'i**

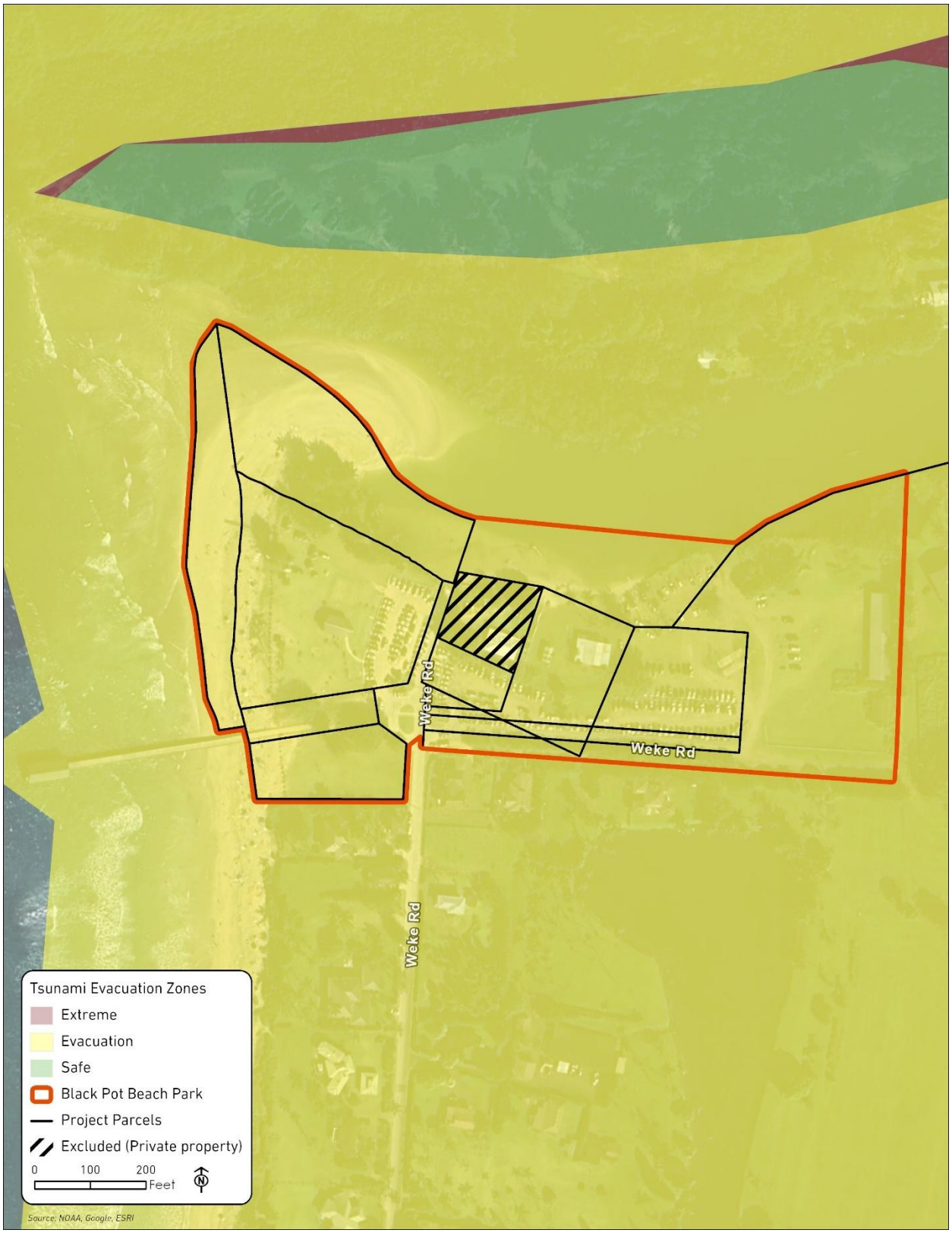


Figure 3-10 **Tsunami Evacuation Zones**

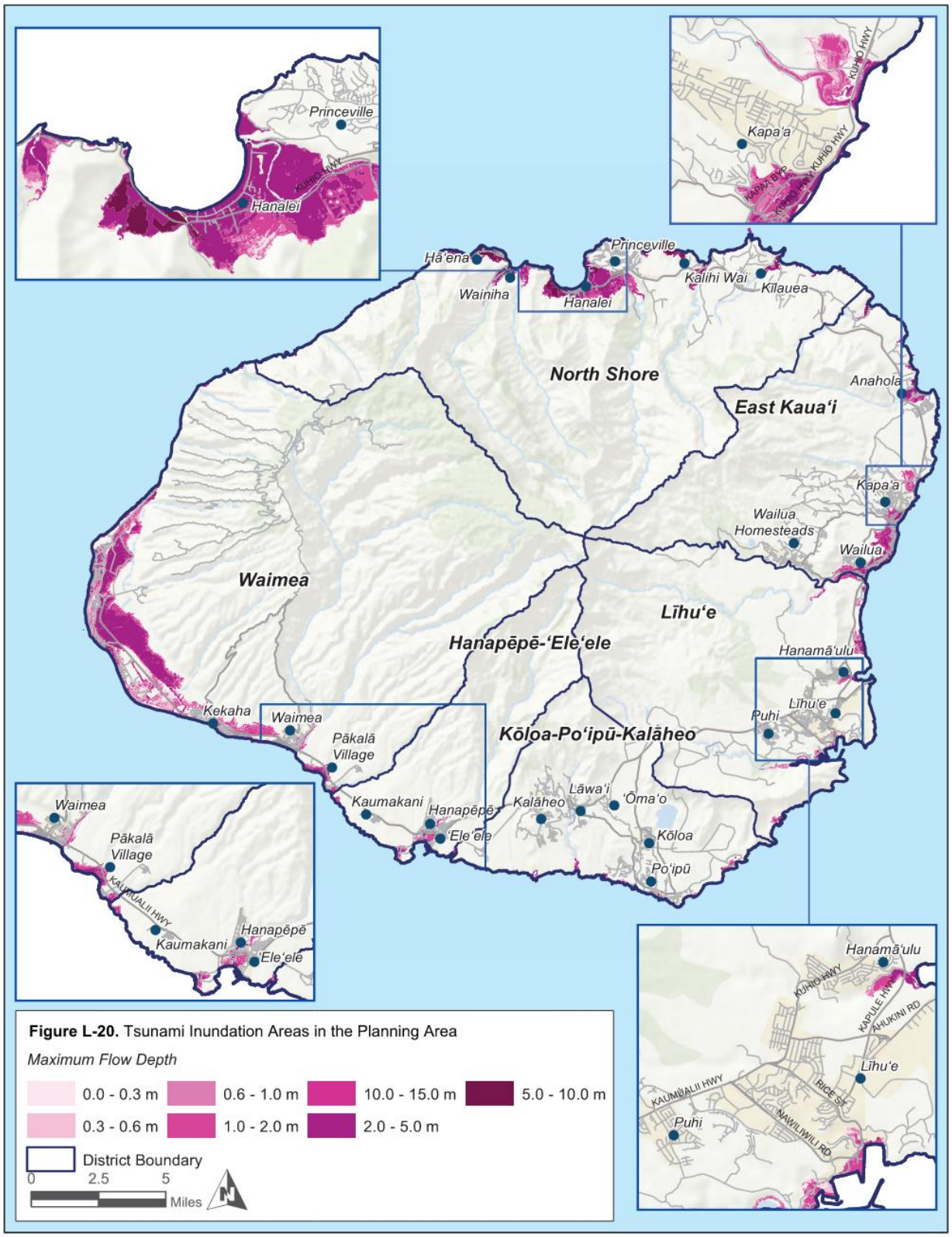


Figure 3-11 **Tsunami Inundation Areas**

3.5.5 Flooding

Existing Conditions

Flooding at Black Pot Beach Park can occur from inland flooding and coastal flooding. Inland flooding is caused by overflowing rivers and streams or extreme rainfall. Coastal flooding is flooding that results from high surf and storm surge.

Inland flooding can occur in four types of floods, riverine floods, flash floods, overland sheet flow, or dam failure floods. Riverine floods include small rivers and streams that are susceptible to flooding from large-scale and more localized weather systems that cause intense rainfall over small areas. Riverine floods occur along a channel and include overbank and flash flooding. Flash floods are intense rainfall events that provide little warning before flood conditions occur. Overland sheet flow occurs in poorly drained low-lying areas when rainfall is not heavy. Dam failure occurs where a dam is present. The 2021 Multi Hazard Mitigation Plan recognizes that the Hanalei River is a principal flooding source with a history of flooding on Kūhiō Highway and adjacent croplands.

Coastal floods are characterized by inundation of normally dry lands by ocean waters. This flooding is often caused by storm surge that occurs during severe storms, tsunamis, or extreme high tide events that result in shallow flooding of low-lying coastal areas. Coastal floods typically result in coastal erosion, salinization of freshwater resources, and contamination of water supplies. Coastal flood zones are areas located in Flood Zone VE and AE. Zone VE are areas where flood elevation includes wave heights equal to or greater than 3 feet. Zone AE are areas where flood elevation includes wave heights less than 3 feet.

According to the National Climatic Center's Storm Events Database lists, 81 flood events have been recorded between 2005 and 2020 on the island of Kaua'i. The last major flood event was recorded in April 2018 where heavy rainfall inundated the north shore of Kauai, causing millions of dollars of damage at Black Pot Beach Park. The principal factors affecting flood damage are flood depth and velocity. The deeper and faster flood flows become, the more damage they can cause.

Based on the FEMA Flood Insurance Rate Map (FIRM) map, the project site is located in Zone VE and AEF (*Figure 1-7)*. Zone VE is a Coastal Flood Zone with Velocity Hazard. The BFE for flood zone VE is 13 feet (*Figure 1-7).* Zone AEF is a floodway area in Zone AE (areas subject to 1% annual change of flood). The BFE for Flood Zone AEF is 12 feet.

Anticipated Impacts and Mitigation Measures

The park improvements have been designed to standards appropriate to the beach park location. The second comfort station has been strategically located further inland and mauka from its original identified location in the 2021 Master Plan to reduce its exposure to natural hazards. Additionally, the second comfort station has been relocated from the Coastal High Hazard Area (Flood Zone VE) to the Floodway Area (Zone AEF). The FFE of the second comfort station will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE.

The Applicant will consult with the County Engineer to ensure the comfort station is designed to meet the County's design requirements for non-residential structures in a floodway area articulated in Kaua'i County Code §15-1.5.

3.5.6 Climate Change and Sea Level Rise

Existing Conditions

Rapid anthropogenic climate change is a well-established fact within the scientific community. As a result of climate change, ice sheets are melting, adding volumes of warm water to the ocean driving up levels of the ocean (Sweet et. al, 2022). Nearly 30% of the population in the U.S. lives in coastal areas where sea level rise plays an active role in flooding, storm hazards, and beach narrowing and beach loss due to erosion. The impacts from anomalous sea level events (e.g., king tides, mesoscale eddies, storm surge) are also likely to increase with climate change.

In 2022, the National Oceanic and Atmospheric Administration (NOAA) published the Global and Regional Sea Level Rise Scenarios for the United States to update sea level rise projections through 2100 with up-to-date scientific research and measurements (Sweet et al. 2022). This report was an update to the 2017 Task Force report with projections of global mean sea level rise. In accordance with the updated NOAA report, the State of Hawai'i updated the Hawai'i Sea Level Rise Vulnerability and Adaptation Report in 2022 to incorporate updated research and projections to address sea level rise in Hawai'i. The Hawai'i Sea Level Rise Vulnerability and Adaptation Report identifies a range of sea level rise scenarios based on differing GHG emission pathways in the near-term and long-term future (*Figure 3-12*).

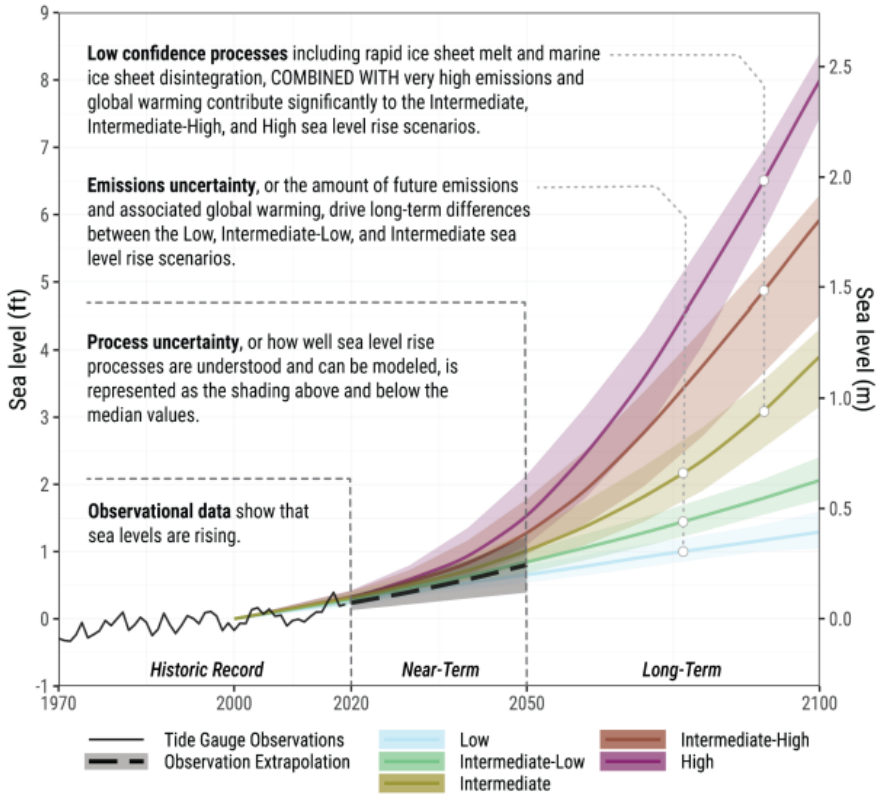


Figure 3-12 **Sea Level Rise Projections (Hawai'i SLR Vulnerability and Adaptation Report, 2022)**

On October 18, 2022, the County of Kaua‘i adopted Ordinance No. 1134 (Bill No. 2879) relating to sea level rise construction regulations. The adopted ordinance created an updated Constraint Sea Level Rise District in the Kaua‘i County Code (CZO §8-12.5 Sea Level Rise District (S-SLR)) to address sea level rise within this century. The ordinance requires the lowest floor of all new residential construction, and substantial residential construction improvements, to be elevated two feet above the highest sea level rise flood elevation. It also requires all new non-residential construction, and substantial non-residential improvements, to be elevated at least one foot above the highest sea level rise flood elevation.

As shown in *Figure 3-13,* the majority of the project site is located within the 3.2-ft. sea level rise exposure area (SLR-XA). When overlaying the sea level rise constraints district, the project site contains elevations ranging from 1-foot to 6+ feet of annual high wave flooding and passive flooding *Figure 3-14* and *Figure 3-15.*

Anticipated Impacts and Proposed Mitigation

The construction of the project will be consistent with general construction-related activity. Construction activity is anticipated to generate limited fossil fuel emissions from combustion and exhaustion and will adhere to DOH air quality standards.

As shown in *Figure 3-13* through *Figure 3-15*, Black Pot Beach Park is subject to sea level rise and must follow the FEMA Flood Zone designation and the Sea Level Rise Constraints District articulated in Kaua‘i County Code §8-12.5. As shown in the Sea Level Rise Constraints District viewer, the entire beach park is located within the Sea Level Rise Constraints District with contours ranging from one to two feet. The second comfort station is located in the one-to-two-foot Annual High Wave Run Up Sea Level Rise Constraints Layer and the 1-foot Passive Flooding Constraints Layer (*Figure 3-14 and Figure 3-15)*. Pursuant to Kaua‘i County Code §8-12.5(b)(3), in the case of a conflict between Article 12 and the requirements of any other Federal law, State law, or County Ordinance the more restrictive shall apply. Given the 12-foot BFE established for the Floodway Area, DPR must adhere to the FEMA FIRM flood zone regulations and design regulations articulated in Kaua‘i County Code §15-1.5.

The second comfort station has been strategically located further mauka and inland from its location identified in the 2021 Master Plan to reduce its exposure to sea level rise. The FFE of the second comfort station will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE. The Applicant will consult with the County Engineer to ensure the comfort station is designed to meet the County’s design requirements for non-residential structures in a floodway area articulated in Kaua‘i County Code §15-1.5.

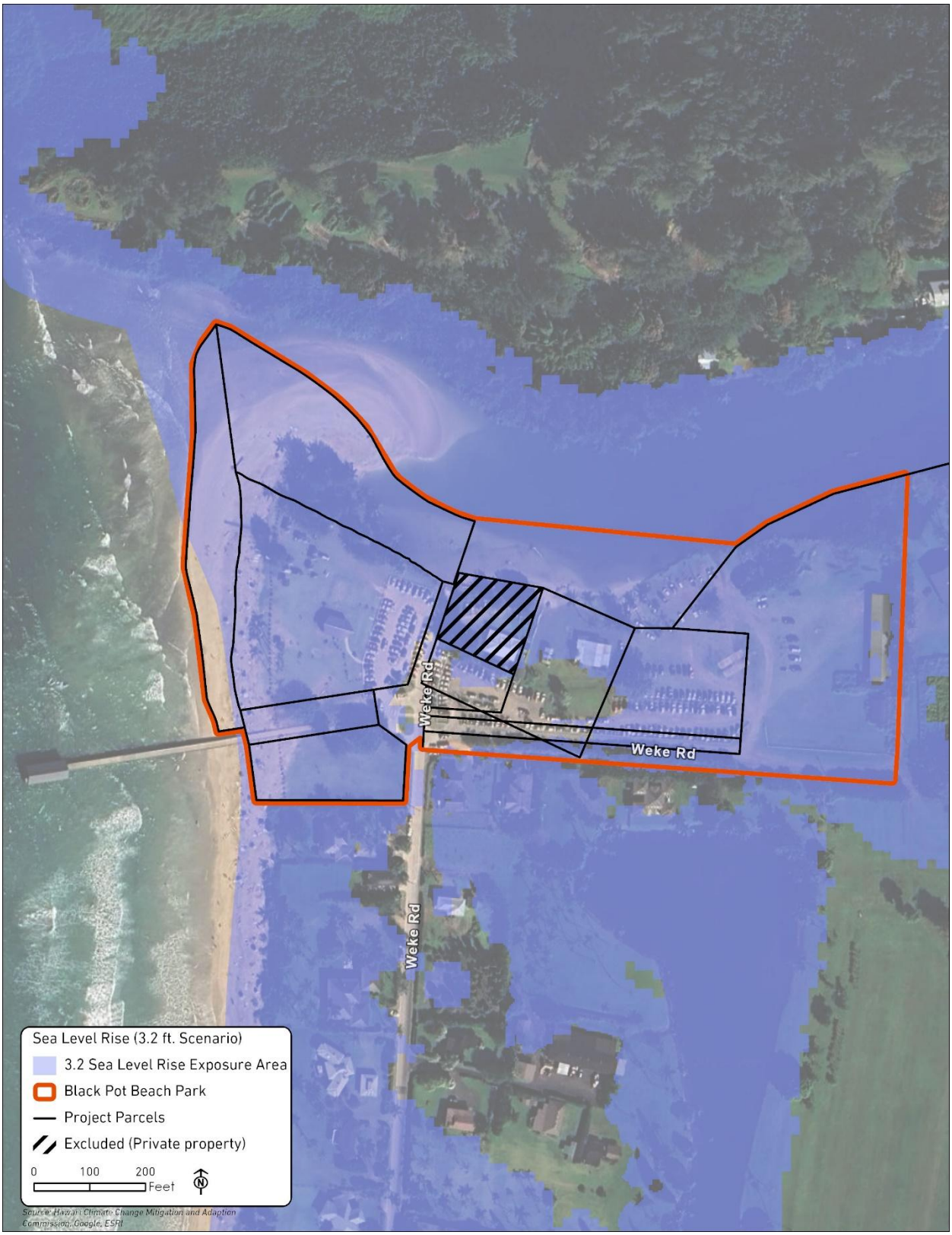


Figure 3-13 **3.2-ft. Sea Level Rise Exposure Area**

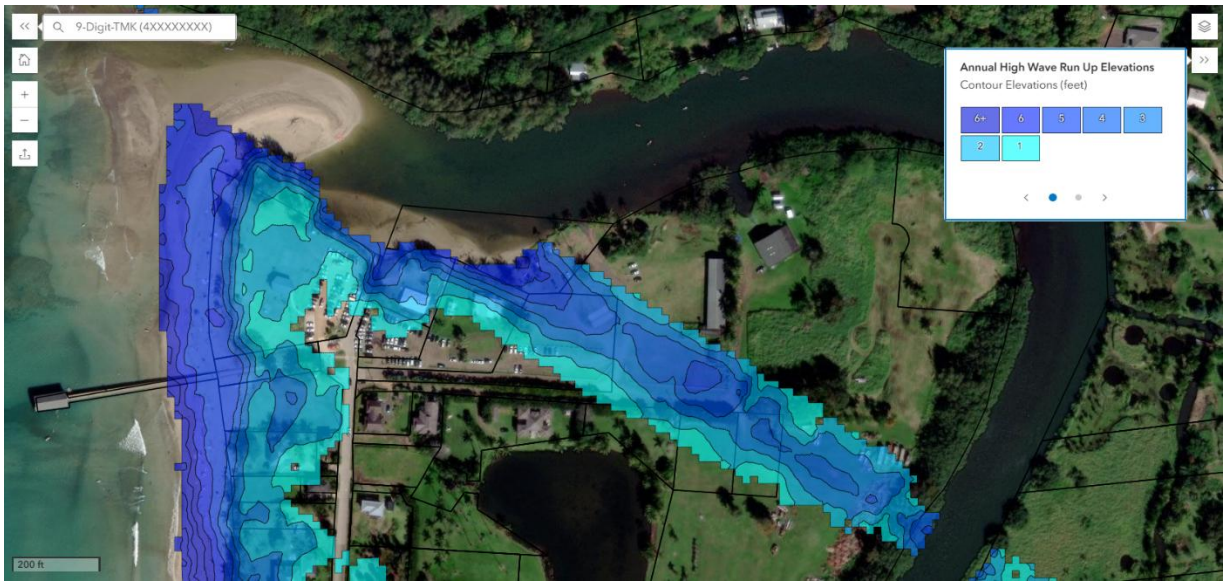


Figure 3-14 **Sea Level Rise Constraints District – Annual High Wave Run Up**

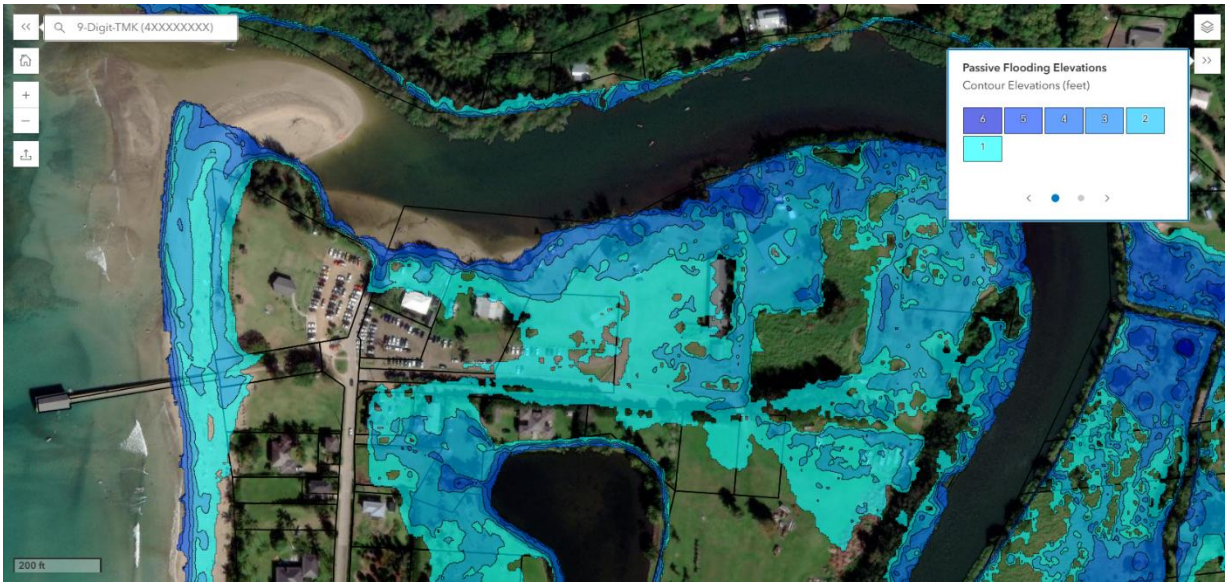


Figure 3-15 **Sea Level Rise Constraints District – Passive Flooding**

3.6 Biological Resources

A biological survey of the project site was completed by Hui Kū Maoli Ola (HKMO) in January 2025 and is included as *Appendix C.* This survey was intended to identify flora and faunal species at the site and identify the presence of threatened or endangered listed species under the federal Endangered Species Act (ESA). The results of this survey are summarized below.

3.6.1 Flora

Existing Conditions

Vegetation at the project site is primarily comprised of nonnative alien species which are species introduced after the arrival of Captain Cook. The remaining vegetation is a mix of Polynesian introduced and indigenous species. Polynesian introduced species are species introduced to Hawai‘i by Polynesians prior to the arrival of Captain Cook and indigenous species are species native to Hawai‘i and other pacific islands. Polynesian and indigenous species at the project site include Kukui (*Aleurites molucanna),* Hau (*Hibiscus tiliaceus),* Milo (*Thespesia populifolia),* Lā‘ī (*Cordyline fruticosa),* Kou (*Cordia subcordata),* Pōhuehue (*Ipomoea pes-caprae subspecies brasiliensis),* Ka‘e‘e‘e (*Mucuna gigantea),* Nanea (*Vigna marina),* Naupaka (*Scaevola taccada),* Pōpolohua (*Solanum americanum),* ‘Uhaloa (*Walteria indica),* Coconut and (*Cocos nucifera).*

HKMO identified two federally Endangered species within the project area: Loulu lelo (*Pritchardia hillebrandii*) and Loulu (*Pritchardia remota*). These individuals occur mauka of the shoreline and outside the construction footprint, and the Master Plan intentionally preserves these trees in place without disturbance.

Groundcover at the park consists entirely of alien grasses and sedges including Sandbur (*Cenchrus echinatus*), Bermuda Grass (*Cynodon dactylon*), Crab Grass (*Digitaria spp.*), Hilo Grass (*Paspalum conjugatum*), Seashore Paspalum (*Paspalum vaginatum*), Guineagrass (*Megathyrsus maximus*), and St. Augustine Grass (*Stenotaphrum secundatum*), all of which are considered to be alien species. Vegetation and ground cover at the park are shown in *Figure 3-16.*

Anticipated Impacts and Proposed Mitigation

The proposed improvements occur entirely within previously disturbed, maintained lawn areas where groundcover is dominated by alien grass. No clearing will occur in the vicinity of the two Loulu individuals. HKMO recommended maintaining an unobstructed buffer around the Loulu lelo and Loulu and avoiding any alteration of their root zones. These recommendations are incorporated into the planned improvements. Landscaping implemented as part of the project will include native Hawaiian and Polynesian introduced coastal species consistent with the 2021 Master Plan that will complement the coastal setting and provide additional shaded areas throughout the park (*Figure 2-13* and *Figure 2-14).* Based on the location of the Loulu individuals relative to the construction footprint, and the limited soil disturbance required for the project, the project is not anticipated to affect endangered plant species.



Figure 3-16 **Existing Vegetation & Ground Cover**

The U.S. Fish and Wildlife (USFWS) Information for Planning and Consultation (IPaC) online tool was used to identify threatened and endangered species and designated critical habitats that may occur in the project area. These species typically occupy wetland, dune, or dry shrubland habitats, none of which occur in the maintained lawn areas where construction will occur. For this reason, if any ESA-listed plant species are found during construction, work will halt in that location and the agencies will be contacted. Because the project area does not include suitable habitat for the listed species, and because improvements avoid intact native vegetation, effects to ESA-listed plant species are not anticipated. The IPaC list is enclosed in *Appendix D*.

3.6.2 Fauna

Existing Conditions

Marine species identified in the Hanalei River included the endemic O'opu Akupa (*Eliotris sandwicensis*), Āholehole (*Kuhlia xenura*), and 'O'opu Naniha (*Stenogobius hawaiiensis*) and the indigenous Pāpio (*Carangoides ferdau*), 'Ama'ama (*Mugil cephalus*), and Uouoa (*Neomyxus leusiscus*), and the Blackchin Tilapia (*Sarotherodon melanotheron*).

Avifauna species identified during the survey included the Nutmeg Mannikin (*Lonchura punctulata*), domesticated (*Gallus gallus subspecies domesticus*), House Sparrow (*Passer domesticus*), Common Myna (*Acridotheres tristis*), and Japanese White-ēhē (*Zosterops japonicus*). The identified avifauna species are not identified as Threatened or Endangered, nor are they considered to be endemic or indigenous to Hawai'i.

Scattered throughout the park was the European Honey Bee (*Apis mellifera*), Sonoran Carpenter Bee (*Xylocopa snoring*), Common Yellowjacket (*Paravespula vulgaris*), Rosey Wolf Snail (*Euglandina rosea*), Cat (*Felis catus*), and Cuban Brown Anole (*Anolis sangrei*). These identified species are not identified as Threatened or Endangered Species, nor are they considered to be endemic or indigenous to Hawai'i.

Anticipated Impacts and Proposed Mitigation

Construction will occur within the interior, mauka lawn areas of the park, away from the shoreline, riverbank, dune features, and marine waters. Because the work is confined to previously disturbed, maintained lawn areas and is set back from sensitive coastal and riparian habitats, the project is not anticipated to affect ESA-listed fauna. No construction will occur in or adjacent to the Hanalei River or Hanalei Bay, and no vegetation clearing will take place in wetland, dune, or riparian environments. All improvements are limited to mowed grass areas with low biological value. Limited ground disturbing activity will be completed for utility connections and buildings. Nighttime construction will not occur, which reduces the potential for seabird disorientation, and no new exterior lighting is proposed other than within the new comfort station, which will use shielded fixtures to minimize offsite light scatter.

Recommendations provided by HKMO were incorporated into the project, including the retention of mature trees used by birds for perching, maintaining native shrubs where present, and avoiding clearing of vegetation taller than 15 feet during the Hawaiian Hoary Bat birthing season unless first inspected. Species-specific protective measures will also be implemented. If Hawaiian waterbird nests are found, a 100-foot buffer will be maintained and agencies will be notified. If Nēnē are present, a 100-foot buffer will be applied, and if a nest is observed, a 150-foot buffer will be established. Nighttime work will be avoided to reduce risks to seabirds, and any seabird nest discoveries will be reported. Vegetation clearing over 15 feet during the bat birthing season will only occur following a pre-inspection to confirm the absence of roosting. Although no work will occur on the beach, if a nesting Green Sea Turtle is encountered, construction within a 50-yard radius will cease.

To avoid indirect effects to coastal waters, construction BMPs will be implemented, including but not limited to phasing construction activity to reduce the duration of exposed soils, routine equipment inspections, storage of equipment away from water bodies, prompt replacement of disturbed groundcover, installation of silt fencing, wattles, and other erosion-control devices, and measures to prevent debris and runoff from reaching the Hanalei River or Hanalei Bay. These measures collectively reduce the potential for impacts to protected species and coastal ecosystems.

3.7 Archaeological Resources

An Archaeological Inventory Survey report (AIS) for the Black Pot project area was completed in August 2017 by Cultural Surveys Hawai'i (CSH) and is located in *Appendix E.* Subsequent follow-on archaeological studies that were completed as part of the emergency flood recover efforts are located in *Appendix E.* A summary of the archaeological studies conducted in the project area are summarized in this section.

Existing Conditions

Extensive archaeological research has been conducted in the Hanalei coastal plain, reflecting its long history of Hawaiian occupation, traditional subsistence practices, and later historic-era activity. Twenty-two archaeological studies have been completed in the broader vicinity of Black Pot Beach Park, identifying twenty-five archaeological sites that include traditional Hawaiian cultural deposits, historic house lots, modified landscapes, and remains associated with plantation and early tourism-era use

(*Figure 3-17* and *Figure 3-18)*. These studies indicate that the Hanalei shoreline has been repeatedly shaped by storm surge, tsunami events, flooding, and grading, all of which influence the preservation and distribution of archaeological materials.

Fieldwork for the AIS included a complete pedestrian survey and a program of subsurface testing within the project area. No surface historic properties were identified during the pedestrian survey, although several modern recreational structures associated with former Hanalei Canoe Club activities were documented. These included a large wooden hale, a discontinued comfort station, and a metal-pipe framed shade structure (*Figure 3-19 and Figure 3-20)*.

Six test trenches were excavated to investigate subsurface conditions (*Figure 3-21)*. Historic-era artifacts were identified in two locations. In Test Excavation T-5, situated along Wilikoki Place, artifacts were found beneath gravel fill and included a small bottle, fragments of bottle glass, ceramic pieces manufactured between 1883 and 1913, a fragment of clay brick likely dating after 1973, and a piece of iron. The mix of dates and materials suggests these items were either introduced with imported gravel during past landscaping or were originally from an older surface that was later redeposited through grading associated with twentieth-century recreational and tourism uses.

Test Excavation T-6, located near the Weke Road parking lot adjacent to public bath facilities, contained a modern pit feature filled with basalt cobbles, clay soil, and sand. Items observed included parts of heavy equipment axle components, early and modern bottle glass fragments, a piece of coal slag, and modern plastic materials. These finds indicate modern refuse associated with equipment maintenance or cleanup activities.

During excavation of Test Trench T-2, a single fragment of iwi kūpuna was identified in the back dirt. Work stopped immediately and SHPD was notified. The iwi kūpuna represents an ancestral individual and is treated with cultural reverence rather than as an archaeological object. Detailed discussion of the remains and specific location information is intentionally omitted from this public document to protect the dignity and safety of the burial. Following appropriate protocol and consultation, the remains were respectfully reinterred in the general vicinity by cultural practitioners and members of the KNIBC. Subsequent field visits confirmed the broader area of reinterment, although surface conditions have changed due to flood recovery efforts (*Figure 3-22)*. The recommended buffer and preservation approach, developed in consultation with lineal and cultural descendants, is provided in *Appendix E.*

Other historic resources documented in the AIS background research include remnants of historic house lots in the Hanalei District and cultural features associated with traditional land use. The Hanalei Pier, though outside the project area, is a recognized historic structure and a prominent cultural landmark. The park improvements do not include work near the pier, do not alter its setting, and do not affect public views to or from the pier.

Two rounds of archaeological monitoring were conducted after the 2018 flood, first during debris removal and later during FEMA reconstruction activities. No additional historic properties were identified during either monitoring effort. These findings support the conclusion that intact subsurface cultural deposits are limited in the actively maintained lawn and parking areas where the planned improvements will occur.

Anticipated Impacts and Proposed Mitigation

The planned improvements are located within previously disturbed lawn and parking areas that have undergone repeated grading, fill placement, and flood recovery work. Based on background research, AIS findings, and the extent of prior ground disturbance, the potential for encountering intact subsurface cultural deposits is low. However, because iwi kūpuna were encountered historically within the broader park area, the project area is treated with heightened cultural sensitivity.

The improvements have been designed to avoid the general vicinity of the reinterment area, which will remain protected within a designated buffer (*Figure 3-22)*. The specific location of the iwi kūpuna is intentionally not disclosed in this EA to preserve the sanctity and security of the burial. Recommendations from cultural practitioners and the KNIBC were incorporated into the design, including maintaining a respectable preserve area marked by unobtrusive features and avoiding ground-disturbing work within that zone. Informational signage will be placed at the perimeter of the preserve area to educate the public about the cultural significance of the area without identifying specific burial details.

Outside of the preserve area, ground disturbance associated with the new comfort station, pavilion, and utility connections will be limited in depth and confined to heavily modified soils. Although prior studies indicate that intact cultural deposits are unlikely within these zones, archaeological monitoring is recommended for all subsurface work. Monitoring will allow for immediate identification and protection of any previously unknown cultural materials that could be uncovered during construction. If cultural materials or additional iwi kūpuna are encountered, work will stop in the surrounding area and SHPD and the KNIBC will be contacted to determine appropriate treatment, consistent with HRS §6E-43 and HAR §13-300.

The project will not alter or disturb other historic-era resources in the vicinity, including the Hanalei Pier, and will not modify its setting, viewplanes, or associated cultural landscape. By concentrating improvements in previously disturbed areas and maintaining protective measures for the reinterment area, the project is not anticipated to adversely affect archaeological or historic resources within Black Pot Beach Park.

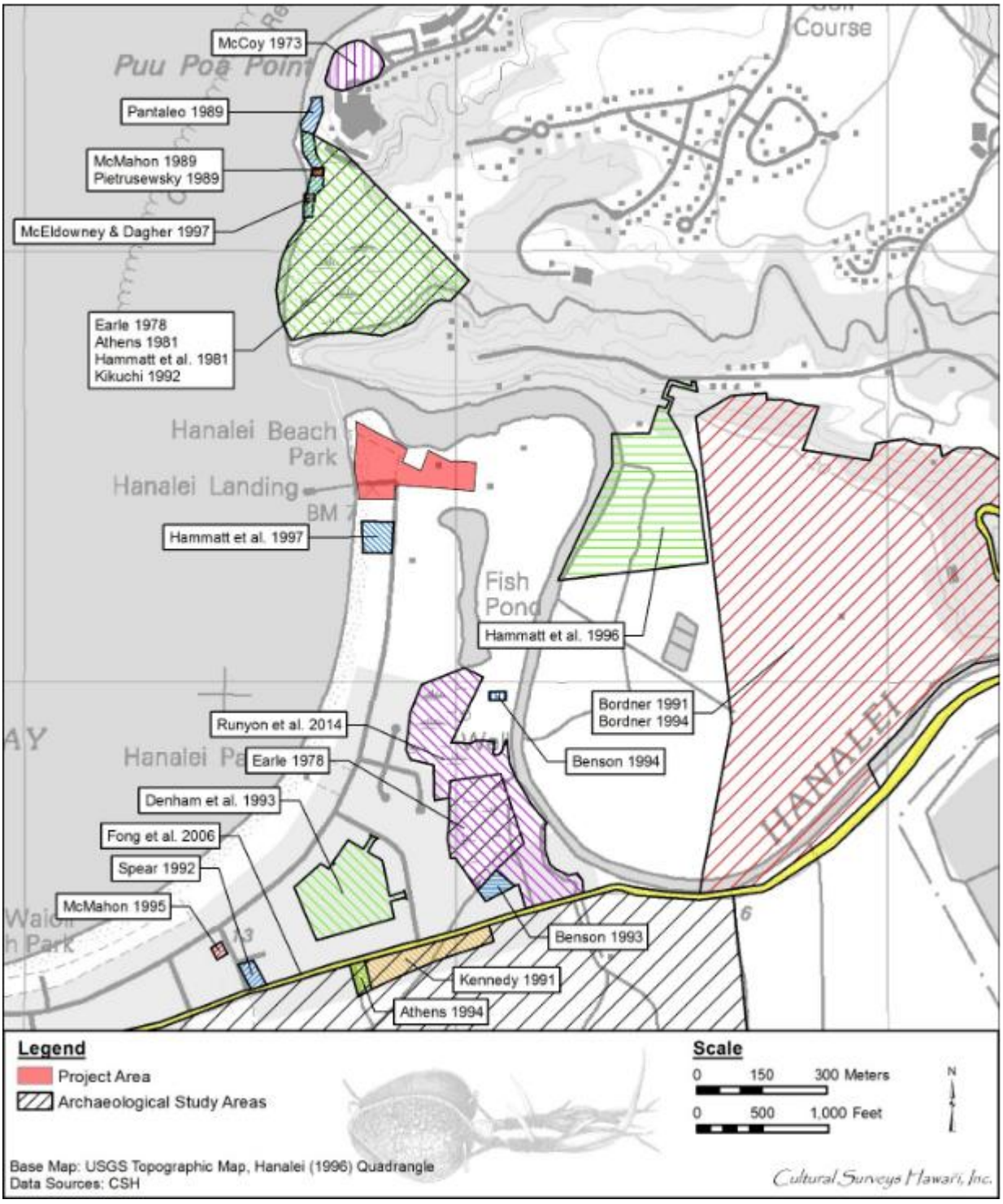


Figure 3-17 A Portion of the 1996 Hanalei USGS Topographic Quadrangle, Showing Locations of Previous Archaeological Studies in the Vicinity of the Current Project Area

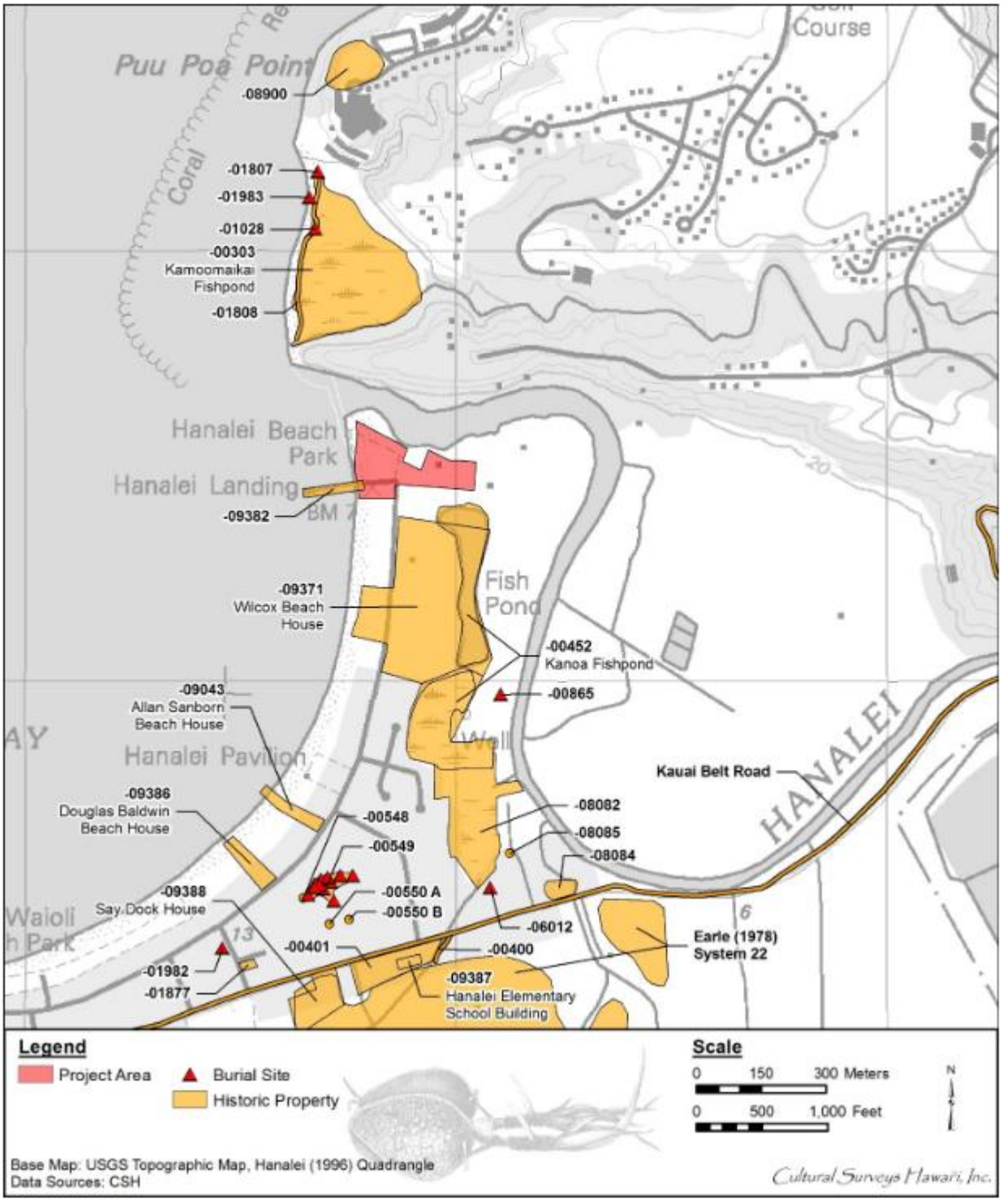


Figure 3-18 A Portion of the 1996 Hanalei USGS Topographic Quadrangle, Showing Locations of Previously Identified Historic and Archaeological Sites Around the Current Project Area



Figure 3-19 Photo of open modern wooden structure in the current project area, view to north



Figure 3-20 Photo of bathroom (left) and open shower, (right of white sign), view to north



Figure 3-21 **Location of test excavation trenches within the current project area (Google Earth 2013)**

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Figure 3-22 **Re-interment Area (Source: Nohopapa, 2025)**

3.8 Historical and Cultural Resources

A Cultural Impact Assessment (CIA) was conducted by Nohopapa Hawai'i in August 2025 (*Appendix F*). The purpose of the CIA is to evaluate the project as it relates to cultural resources, including cultural practices, places, features, and resources at Black Pot Beach Park. A summary of the findings from the CIA is below.

Existing Conditions

Black Pot Beach Park is located on the North Shore of Kaua'i, within the traditional ahupua'a of Hanalei, in the moku of Halele'a, on the island of Kaua'i. Background research revealed mele associated with the ahupua'a of Hanalei area celebrate its rain and the abundance of freshwater resources. Mele associated with the Hanalei ahupua'a revealed a common theme of heavy rainfall that is plentiful and gives life to the beloved place.

Land Tenure

The 1848 Māhele was established by the Hawaiian Kingdom Government to guide Hawai'i in its transition from a traditional system of shared land tenure. The Māhele provided a process to claim

ownership of land as either a Native Register (NR) or Foreign Register (FR). Tenants stated their claim and as part of the process, Native Testimony (NT) or Foreign Testimony (FT) was provided by neighbors, ali'i, or other knowledgeable individuals to support the tenants' use of the land and how the land was obtained. The Land Commission was responsible for approving land claims. If the Land Commission awarded a land claim, the claimant would pay a commutation fee and conduct a survey for the final Land Commission Awards (LCAs). LCAs provide firsthand accounts of residency, resources, land use, access, traditional and customary practices for lands throughout Hawai'i.

During the Māhele, several LACs were awarded in the project area (*Figure 3-23 and Table 3-3)*. Makai lands within the project area deeded from Kamehameha IV to Charles Titcomb, while John Brosseau and T.C. B. Rooke received Konohiki and Other LCAs. Hawaiian Kingdom Government Grants comprised the mauka half of the project area. Additionally, five kuleana LCAs were awarded across the Hanalei River, outside the project area, to Kealaiki, Puupoa, Paaiki, Kalawakea, and Kalakala. Two LCAs on lands located further west on Weke Road were awarded to Naiwi, Punonea, and Uloa.

Table 3-3: Land Commission Awards

Claimant Name	LCA No.	Award Year	'Ili 'Āina	Cultural & Natural Resources
Kealaiki	4083 & 9137	1851	Kaunuopua	Pā hale, 'ili Kaunuopua
Puupoa	10646 & 3819	1852	Kaunuopua	Pā hale, Hanalei River muliwai, ridge of Puupoa,'ili Kaunuopua
Paaiki	10648 & 3816	1851	Kaunuopua	Pā hale, Hanalei River muliwai, ridge of Puupoa,'ili Kaunuopua
Kalawakea (Kalowakea, Kaloakea)	4081	1857	Hanaleiiki	Pā hale, Hanalei River muliwai, inoa 'āina: Kalauakawaha, Kuapuka, Kauloulu
Kalakala	9078 & 4073		Hanaleiiki	Pā hale, kahuahale, Alani (lā'au), inoa 'āina: Waihi, Kahua, Kaahaapiki, Kaluakanaka, Haulepeamoa
Naiwi & Punonea	10691	1851	Nounou	Pā hale, 'auwai
Uloa	10915	1851	Nounou	Pā hale
Brosseau, John			Opukahi	house
Rooke, T. C. B.				

The Māhele established Crown lands which were lands originally held by the King. On June 7th, 1848 the Act Relating to the Lands of His Majesty the King and of the Government established the Crown lands as the personal property of the Moi, and as separate from the public domain – government lands.

The ahupua'a of Hanalei, was named as Crown land during the Māhele. From 1848 to 1865, portions of the Crown lands were exchanged and sold by Kamehameha III & IV. These land exchanges were recorded as Royal Patents (Grants sold from the Government body of lands and were commonly known as Kamehameha Deeds. Kamehameha IV deeded six large parcels in Hanalei, stretching from the valley up to Puu Pehu (*Figure 3-24 and Table 3-4)*. Kamehameha IV also interceded the LCA 52 to John Brosseau.

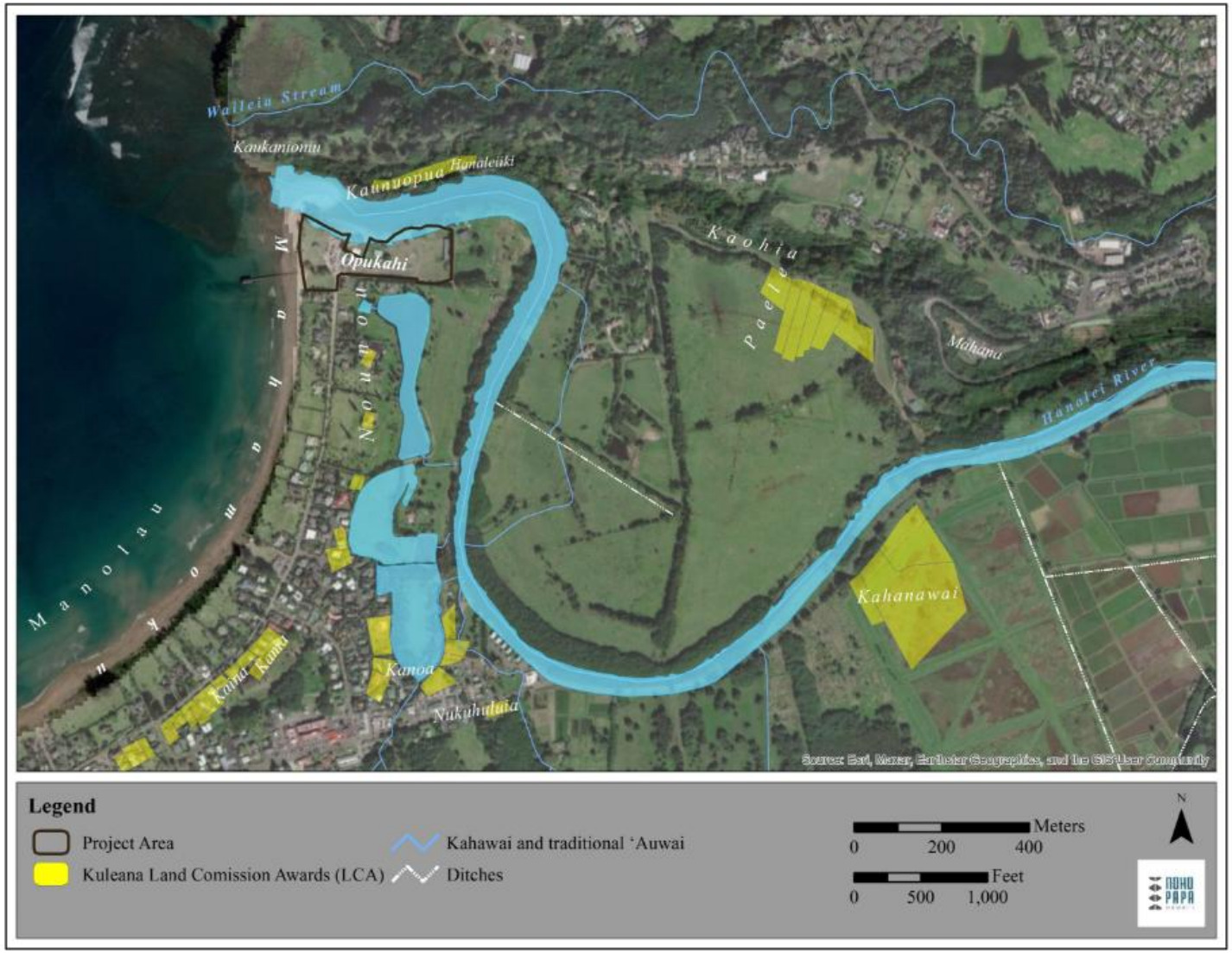


Figure 3-23

Land Commission Awards (Source: Nohopapa, 2025)

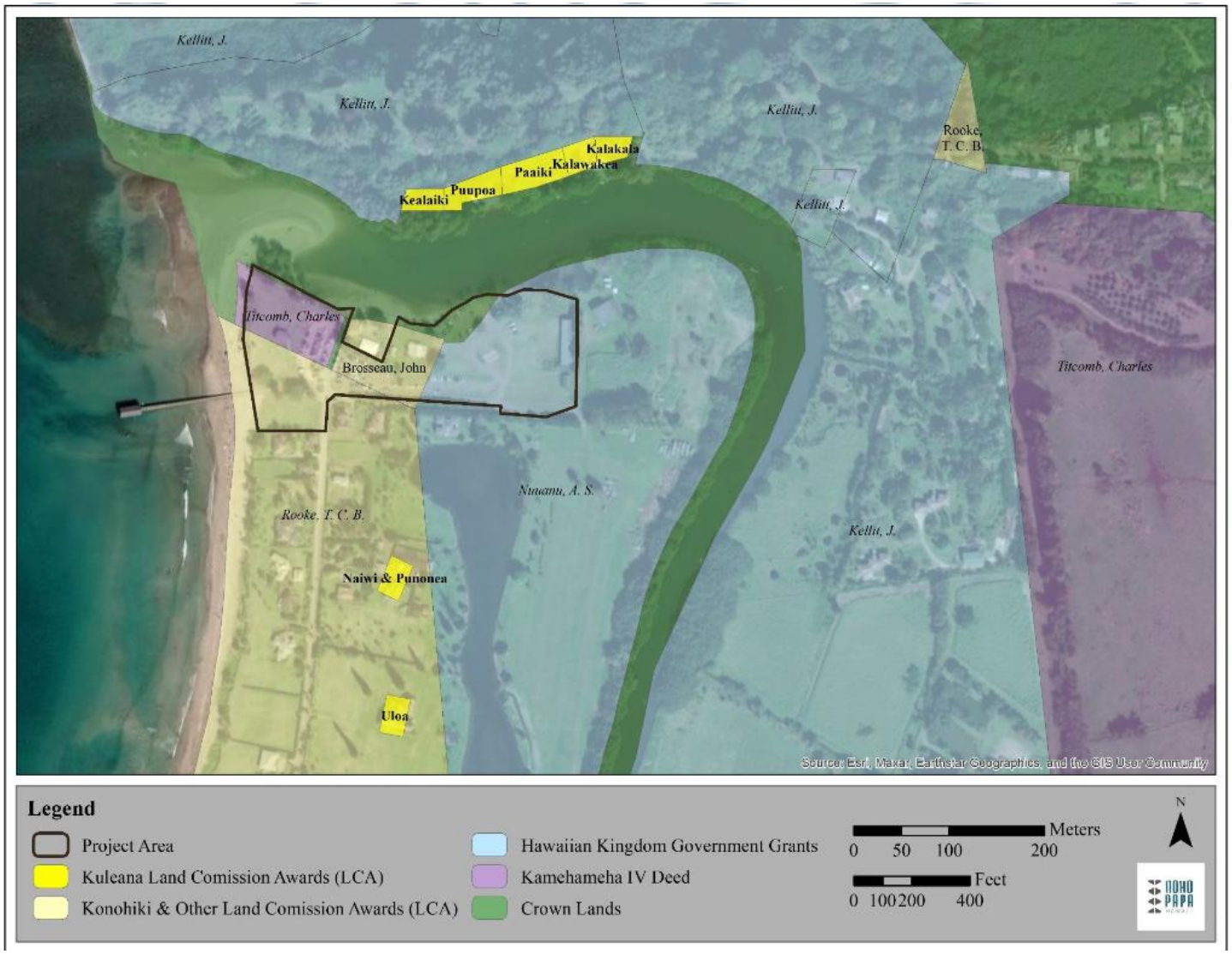


Figure 3-24 **Royal Patent Awards (Source: Nohopapa, 2025)**

Table 3-4: Royal Patent Awards			
Named Grantee	**Acreage**	**ʻĀpana**	**Notes**
Johnson, Edward & Wilcox, Abner	34	1	Kamehameha IV May 29, 1857
Johnson, E.	10		Kamehameha IV to E. Johnson, 10 acres
Merritt, J.	778		Kamehameha IV to J.Merritt, for 77.76 acres in Liber.8 pg. 275
Titcomb, C.	626	1	Deed Kamehameha IV, Feb 12, 1856. Includes por. Nokuhuluia Stream hoʻi into Hanalei River (LCApp 1160-2)
Titcomb, C.	140	2	Kamehameha IV. RM1833 shows C.Titcom to R.C.Qyllie, Lib.16 pp.215, 216 & 217
Titcomb, C.	7	3	Deed Kamehameha IV, Feb 12, 1856. Kanoa Pond, ʻauwai & stream por. (LCApp1160-2)
Titicomb, Chas.		4	Per LCApp1160-2: Deed: Kamehameha IV to Chas. Titicomb, AP.4 Lib.7, p. 284 Feb 12, 1856. Per RM1833: KamIV to Titicomb. Titicomb to Wyllie Ap.4 Lib.16 p. 215.
Wyllie, R. C.	750.3		Kamehameha III to R.C. Wyllie

Early Historical Period

Hanalei was a population center supported by extensive loʻi as well as the eastern terminus of ap rime wauke cultivation zone. Its abundance meant that Hanalei also served as a chiefly center. Bishop Museum research affiliates E.S. Craighill Handy and Elizabeth Handy, and Hawaiian ethnographer Mary Kawena Pukui describe the land division of Hanalei as possessing a "fine broad stream, extensive seaward valley bottom and delta area," that made it ideal for kalo cultivation. Ridgeline trail systems aligned mauka-makai allowed movement and access to varied resources for populations living in the mountains an in those makai lowlands of Hanalei. An 1833 map of Kauaʻi shows the study area of Hanalei including the wide mouth of the Hanalei River out letting into the sea and trail tracing through the makai portion of the project site (*Figure 3-25)*.

The American Board of Commissioners for Foreign Missions (ABCFM) arrived in Hawaiʻi and on Kauaʻi from 1820 to 1863 and later in the 1870s and 1880s. In Hanalei, the Protestant mission station of Waiʻoli Church was established in 1834 by Reverand William P. Alexander. The church would go on to establish a permanent location and house near the Waioli River. While the Protestant Church was the dominant faith in the Hanalei area, due to its early establishment and success of the Waiʻoli Mission. The Catholic Church established their mission in Hanalei in 1864 with the establishment of Saint Maxime located in the project area. The Roman Catholic Church acquired the plot of land located along the Hanalei River, originally awarded as LCA 52 to John Brusseau. Land records at the Bureau of Conveyances did not reveal a deed was passed from John Brusseau to The Roman Catholic Church. A Land Court Application, No. 1160, Map 2 shows LCA 52 with ownership listed under The Roman Catholic Church. An 1897 historical photograph capturing a portrait of the project area shows a steepled church, house, and fenced-in garden area along the river (*Figure 3-26*). This church pictured was Saint Maxime, which was constructed in 1864 for Catholic denomination and demolished in the 1930s.

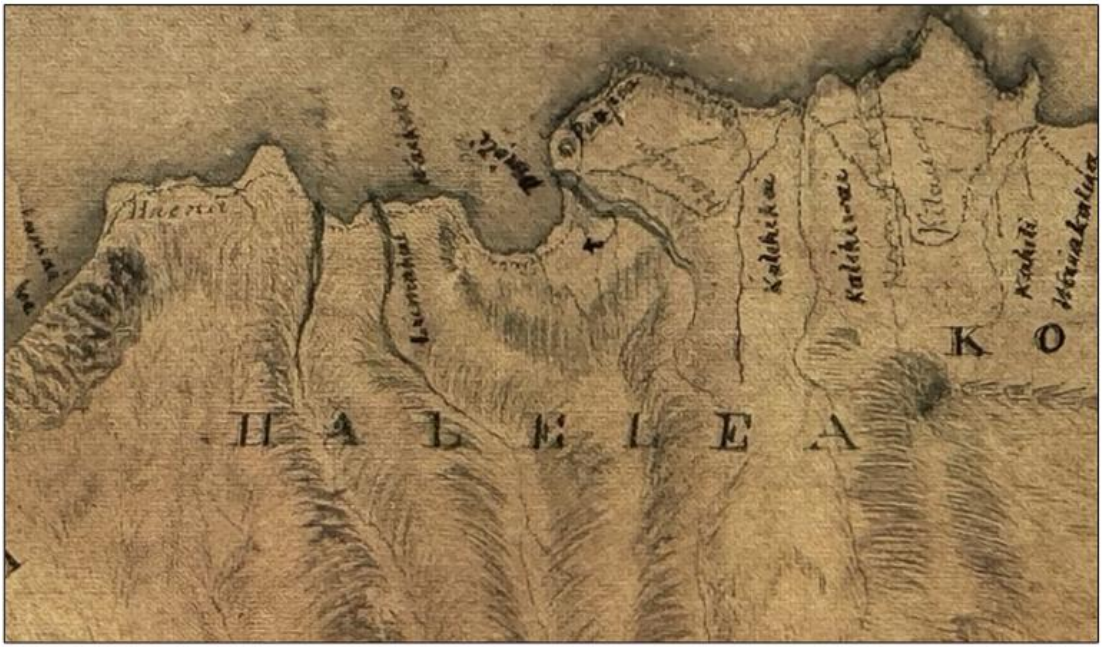


Figure 3-25 **1833 Map of Hanalei (Source: Nohopapa, 2025)**



Figure 3-26 **1897 Photograph of Hanalei (Source: Nohopapa, 2025)**

Hanalei played a role in the Pacific Whaling Industry that lasted from 1825 through 1870. While whaling ships were serviced, supplied, and manned in the growing port cities of Honolulu, Hilo, and Lahaina, historic accounts from the Kaua‘i Historic Society notes that whalers came inland to resupply at various outlying ports of call and at agricultural communities, including Hanalei where whalers bartered for pigs, potatoes, yams, and squashes.

The sugar industry began a long-term boom in Hanalei beginning in the 1860s. The Princeville Plantation Company and Hanalei Sugar Mill Company were active in the nineteenth and twentieth centuries. The Princeville Plantation Company began its operations in 1862 and transitioned through an array of owners before closing its doors in 1894. The Hanalei Sugar Mill Company opened its doors in 1889 but closed its operations in 1893.

As whaling declined in Hanalei, its decline was felt by local farmers and wetland agriculture across Kaua‘i. As mono-crop sugar and pineapple plantation systems were expanding, plantation workers from Japan and China were immigrating to Hawai‘i, including Kaua‘i. Farming in Hawai‘i began to transition from kalo to rice from a growing immigrant population. Rice thrived in traditional Hawaiian lo‘i systems. Chinese and Japanese families cultivated rice in Hanalei, Wai‘oli, Waipa, and Waikoko. Larger scale rice mills were built and operated by Chinese farmers and millers in Waipa Valley and in Hanalei Valley.

After the overthrow of the Hawaiian Monarchy in 1893, rice production began to decline due to competition from imports. The Hanalei Pier which supported whaling and rice farming, discontinued its commercial use in 1933 with the importation of rice. Since the closure of commercial operations, the Hanalei Pier has been used for recreational purposes. Although rice farming persisted on a smaller scale, many of the farmers transitioned from rice back to taro, which has persisted to this day.

As part of this CIA, individuals with genealogical, cultural, and/or historical connections to the Hanalei ahupua‘a and/or active Native Hawaiian cultural practitioners were contacted for interviews to document their knowledge of Hanalei and document the visions they have for Black Pot Beach Park. Interviewees acquired their knowledge about Black Pot and the Hanalei River Muliwai through personal experience or observations and from older family and community members who shared with them personal, historical, and/or genealogical information. Interviews and research revealed six themes specific to the project area:

1. Sailing and Racing Wa‘a
2. Lawai‘a and ‘Ohana with Black Pot coast and muliwai connections
3. Connectivity: Na Pali Coast Access and Practitioners
4. Mālama Iwi Kūpuna
5. Generational Residents
6. Surfing and other Ocean Traditions
7. Wahi Kūpuna Stewardship

<u>Wa‘a</u>

Whether traditional sailing canoes, six-man racing canoes, smaller surfing canoes or one-man outrigger canoes, Hanalei Bay has been a safe harbor and a hub for wa‘a since time immemorial, a practice that continues today.

From one participant's understanding, Hanalei Hawaiian Civic Club was founded in 1959. Then fourteen years later, in 1973, the Hanalei Canoe Club was founded through the civic club. This was confirmed by another participant, whose mother was a founding member. They shared that the Hanalei Hawaiian Civic Club and Canoe Club was created to keep the kids busy. Two generations later, that participant's keiki and mo'opuna continue to paddle. The mission purpose of the Hanalei Canoe Club is to, "provide our community, young and old alike, with the opportunity to perpetuate the culture and art of Hawaiian canoe paddling." Consultees shared that the Hanalei Canoe Club used to be one of many wa'a hui under Hawaiian Civic Clubs, but now, Hanalei Hawaiian Civic Club is the last one left.

One participant mentioned Carlos Andrade, a professor at Kamakakūokalani Center for Hawaiian Studies at the University of Hawai'i at Mānoa, author of *Hā'ena: Through the Eyes of Our Ancestors (2009)*, a surfer, involved with the Hōkūle'a and one of the first to bring sailing canoes back to Hanalei Bay. One participant shared something he taught them about kilo, specifically at Hanalei Bay: if one stands at the Hanalei Pavilion, just down the beach from Black Pot, and looks down the line of the bathroom wall, one can line up the sun at Equinox, March and September. This kind of knowledge, learned in place, is what sailors, paddlers, and fisher people practice. Kilo is often overlooked as a Native Hawaiian traditional practice, but some participants shared that it is one of the most important.

Consultees shared that kilo at Black Pot, in the early morning, at sunset, on the river, in the Bay, at the shore, during Equinox, or solstice, and all the times in between is a critically important practice to maintain. Kilo is identified as a practice that underpins many others. Access to the area to kilo is something participants recommend be protected.

The eastern corner of Hanalei Bay is a traditional gathering place for the residents of Hanalei. Even before the construction of the landing, they congregated here to launch their boats, to fish, to swim, and to socialize. Today, these same activities and others continue at this site. The name Black Pot predates the development of the public park. For many years a group of Hanalei residents kept a large black cooking pot at the beach, which became a focal point for informal social gatherings and eventually gave the site its popular name.

The establishment of Black Pot for public use and its inception as a park came about because of the gathering of area families in that place. Interviewees shared that families gathered where an abundance of resources allowed them to kilo, fish, surf, sail, paddle, kanikapila (play music) and cook together. Interviewees recalled that they did not just go to the park, they took care of it as well. This led to the founding of the Hanalei Hawaiian Civic Club and the Hanalei Canoe Club in the 1970s.

The stewardship and care of wahi kūpuna, ancestral places, including the waters, the land, the fish, the limu, and crabs, down to the sand on the beach and the pōhaku in the water, is a cultural practice: mālama 'āina. This stewardship is a traditional and active Native Hawaiian practice, similar to how hui's shared the management of resources, as with the Hui Hoolimalima aina Lei alii of Hanalei, the Wainiha and Hā'ena Hui's.

Lawai'a

Since time immemorial families that lived in the four ahupua'a that form Hanalei Bay, Waikoko, Waipā, Wai'oli and Hanalei, fished as a form of subsistence; these four ahupua'a have four like named streams that flow into Hanalei Bay. This influx of fresh water into the Bay creates a sheltered near shore ecosystem primed for abundance. Young pua, baby herbivorous fish, thrive in the Hanalei River muliwai, sheltered from predator fish. It was shared that this freshwater enters into the bay, and the currents and sand bar near the pier also create ideal young fish habitat.

Black Pot, which includes the northernmost part of Mahamoku Beach, the Hanalei River mouth, its muliwai, and riparian coast, is historically, and in recent memory, a place of abundance where fishermen could subsist and sustain their families. One interviewee accounted for at least eight generations fishing at Hanalei Bay and Hanalei River specifically. Other interviewees shared that several types of fishing occur at Black Pot: pole fishing, throwing net, communal fishing like hukilau or paepae, deep sea fisher people launching and returning at the Hanalei River mouth, as well as crabbing in the river and on the rocks, and even harpooning from shore at the river mouth. These practices occurred in the bay, onshore, offshore, at the sand bar, in row boats in the river, along the river, and off the pier.

Interviewees shared that there are fewer fish than a generation ago, and less fish than the generation before that. This continued loss of marine and estuarine abundance was also identified by interviewees who participated in a 2003 study (Maly & Maly, 2003). Interviewees verified changes overtime in overall ocean and stream health and abundance from Hanalei to Hā‘ena.

One interviewee shared that there is a kind of underwater crater that fish spawn in, adjacent to the pier. When the Kona winds blow, boats anchored in the bay swing at the most onshore tether of their moorings and disturb this fish spawning area. Another consultee mentioned that intense water traffic connected to Black Pot Beach Park users impacted schools of fish in Hanalei Bay, especially in a critical zone entering and exiting the Hanalei River muliwai. The protection of the spawning grounds and access for young fish to clean fresh water at the muliwai, where it mixes with fresh salt water, is also important for the larger ocean fishery, even the deep-sea fishery. Other interviewees recalled fond recollections of abundant schools of fish and hihimanu, baby sharks, lots of small mollusks on rocks, pier pilings and in the sands. One interviewee shared that it was typical for schools of fish like mullet and aholehole to run in and out of the river, and that they remembered larger schools of baby and juvenile fish, moi li‘ili‘i and ‘oama, at the coast and in the river in their youth.

Kū‘ula are naturally occurring or carved stones that were themselves considered akua, or gods. Families cared for and maintained kū‘ula in their homes, or at ko‘a (fishing shrines) along the shore. Kū‘ula are part of the religious beliefs of Hawaiians tied to the practice of lawai‘a. Helena Maka Santos, while interviewing Harry Ho, on March 8th, 1988 for the Hanalei Project asked about kū‘ula. Harry Ho, consultee Randall Osakoda’s grandfather, had a lot of knowledge of kū‘ula, and as it turns out Ms. Santos’s grandmother, herself kept a kū‘ula, along with other Halele‘a families. Mr. Ho confirmed that kū‘ula were passed down and cared for in families, which was a tradition that did not outlast the rise of Christianity. For proper disposal, the kū‘ula must be placed in the ocean. Assuredly it is believed that many kū‘ula are still in the waters off Hanalei Bay today.

Additionally, crabbing has been a shared practice at Hanalei Bay as shared by a generational family living on the banks of the Hanalei River. This ‘ohana has crabbed and fished the river for generations.

Surfing

Surfing at Hanalei Bay is storied. The larger bay break can reach phenomenal heights while the inner shore break to the left and right of the pier is gentle and rolling, often likened to the famous breaks at Canoes in Waikīkī. Interviewees noted that Sunday is a no commercial surf school day at Black Pot, meaning no surf schools are allowed to park at the Beach Park, only drop offs of equipment and participants are allowed.

The sand bar at the river mouth on the north side of Hanalei Pier changes during the year with sand building across the river out into the ocean and along the uka riparian shoreline. It was reported that

these changing sands at Black Pot are normal as they recede and build up with storms, swells, and tides and change the depth and width of the river mouth and the surf break.

Mālama Iwi Kūpuna

As part of an AIS completed at Black Pot Beach Park in 2016, a single fragment of a human bone was encountered in backfill material (see *Section 3.7*). Work was stopped to protect iwi, but no further remains were encountered. Subsequently, the iwi kūpuna fragment was re-interred at Black Pot Beach Park through the efforts of a member of the KIBC. Most recently, a member of the KNIBC went out to the site to locate the re-interment area. This locational information was reshared with SHPD and the design team to ensure proper protection of the identified iwi kūpuna. As recently as August of 2025, Nohopapa observed cars and parkgoers parked and tents and chairs over the unmarked re-interment site.

Anticipated Impacts and Proposed Mitigation

The project calls for the implementation of the 2021 Master Plan prepared for Black Pot Beach Park. The community driven plan provides a framework for a park that continues to serve residents and visitors and acknowledges longstanding practices such as waʻa, lawaiʻa, surfing, gathering, and kilo. The planned improvements will provide a second comfort station and an open-air pavilion to accommodate existing uses, improve circulation within the Wilikoki Place parking area, and maintain access to the shoreline and Hanalei River mouth. These improvements are not anticipated to adversely affect recognized cultural practices and, in some cases, will provide additional shade, seating, and sanitary facilities that support continued community use.

Protection of iwi kūpuna and other cultural resources is a central consideration of the project. The reinterment area identified through prior archaeological work and recent field visits with KNIBC representation will be preserved within a buffer that removes vehicles and intensive park use from the immediate vicinity (*Figure 3-22)*. Informational signage of an appropriate, nonspecific nature will be installed to acknowledge the presence of iwi kūpuna and the broader cultural history of Black Pot Beach Park without disclosing sensitive locational details. Continued consultation with SHPD, KNIBC members, and lineal and cultural descendants will guide refinement of protective measures during design and construction.

While the park improvements are intended to better accommodate existing use, interviewees recognized that Black Pot Beach Park attracts high levels of visitation, and that unmanaged growth in use can affect traditional and customary practices such as lawaiʻa, waʻa, and surfing. In response, the CIA recommends that DPR work collaboratively with the community to develop an active management plan that supports ongoing cultural practice. Potential components include coordination with generational lawaiʻa and waʻa practitioners, consideration of managed parking and shuttle options, refinement of commercial use controls, and exploration of rest days or time-based protocols that privilege community and cultural use. Continued consultation with cultural practitioners for the development of a community-based management framework will improve recreational resources such as lawaiʻa, waʻa, and surfing recognized and practiced at Black Pot Beach Park.

3.9 Socioeconomic Characteristics

Existing Conditions

Black Pot Beach Park is located on the North Shore of Kaua'i. The beach park is a focal point on Kaua'i's North Shore with its pristine location nestled between the Hanalei River and Hanalei Bay.

The beach park is located within Census Tract 401.04. Census Tract 401.04 has a population of approximately 1,438 individuals, which represents approximately 1.9% of the total population on the County of Kaua'i. Within Census Tract 401.04, the population predominantly identifies their racial and ethnic background as Asian, approximately 54% of the total population, approximately 24% identify as White, and approximately 19% identify as being comprised as two or more races. Census Tract 401.04 is comprised of approximately 438 households, approximately 1.4% of the total number of households in the County of Kaua'i. The median household income is approximately $132,115.

Anticipated Impacts and Proposed Mitigation

The construction of the project will generate jobs through the buildout of the park improvement and economic benefits through the purchasing of construction related materials. The project is not anticipated to adversely affect population projections or household characteristics in the Hanalei area or greater County of Kaua'i.

3.10 Infrastructure and Utilities

A *Preliminary Infrastructure Assessment* for the Black Pot Master Plan Improvements was prepared by G70 in November 2025 and is attached in *Appendix B.*

3.10.1 Water

Existing Conditions

Black Pot Beach Park is located within the County's Department of Water, Hanalei water service area. Service to the park is provided via an 8-inch asbestos cement pipe that runs beneath Weke Road. An 8-inch cast-iron water line extends from the 8-inch asbestos cement pipe and crosses through parcel 049, 033, 034 and 002 within a County owned easement. The park parcels are served by individual water meters (*Table 3-5).*

The park is equipped with multiple hose bibbs and shower stands that are scattered throughout the park. The park does not contain a fire hydrant; and the nearest fire hydrant is located on Weke Road, approximately 320 feet south of the park entrance.

Table 3-5: Water Meter Information			
TMK Parcel	**Meter No.**	**Meter Size (in.)**	**Owner**
5-5-001:002	n/a	n/a	DPR
5-5-001:004	08400149	1-1/2	DPR
5-5-001:004	91000445	5/8	Gaylord Wilcox
5-5-001:011	08117583	5/8	DPR (Formerly John Hodge)
5-5-001:0121	08117585	5/8	n/a
5-5-001:033	96001208	5/8	DPR (Formerly Hanalei River Inc.)
5-5-001:034	04000108	5/8	DPR (Formerly Hanalei Boat Yard)
5-5-001:049	08115390	5/8	DPR (Formerly PWS Trust)

Source: Engineering Report, Hanalei Black Pot Beach Park, Esaki Surveying and Mapping, Inc., April 2017)

[1] Not within Black Pot Beach Park

Anticipated Impacts and Proposed Mitigation

The second comfort station will receive water from the existing internal park water system beneath Wilikoki Place. A new water submeter will be installed near Parcel 034 to monitor water usage at the second comfort station. As part of the park improvements, landscaping will be irrigated from the new submeter installed for the second comfort station. The project is not anticipated to increase water consumption that may impact water services in the greater Hanalei region.

3.10.2 Wastewater

Existing Conditions

Black Pot Beach Park is serviced by four permitted Individual Wastewater Systems (IWS). The existing comfort station is serviced by IWS Permit No. 62037 and 62308. The boat washdown area is serviced by IWS Permit No. 18534. IWS Permit No. 20814 is currently inactive, but previously serviced the comfort station for the old Hanalei Canoe Club Hale.

The park contains one IWS with no recorded permit that serviced the structures formerly owned by the Sheehan Estate.

Anticipated Impacts and Proposed Mitigation

The second comfort station will be serviced by the construction of a new IWS. The Applicant will obtain the applicable permits for the construction of a new IWS to serve the second comfort station. The existing inactive IWS (Permit No. 20814) that served for former Hanalei Canoe Club will be demolished. The project is not anticipated to affect wastewater services in the greater Hanalei region.

3.10.3 Electrical Services

Existing Conditions

The park receives electrical services from the Kaua‘i Island Utility Corporation (KIUC) via overhead lines located along Weke Road.

Anticipated Impacts and Proposed Mitigation

As part of the park improvements, new overhead lines for lighting will extend from the existing power pole located near the intersection of Weke Road and Wilikoki Place to the second comfort station and open-air pavilion. The project is not anticipated to affect electrical services in the greater Hanalei region.

3.11 Roadways, Access and Traffic Conditions

A *Traffic Assessment* for Black Pot Beach Park Master Plan was prepared by Fehr and Peers in July 2025 and is attached in *Appendix G.* The following section provides key highlights and assesses potential impacts on roadways, access, and traffic conditions.

Existing Conditions

The existing park entrance is located at the north end of Weke Road and is an approximately 0.75-mile walk from Kūhio Highway in Hanalei town. Weke Road is a two-way street with roughly 20 feet of pavement just south of its intersection with Wilikoki Place. Wilikoki Place extends for approximately 850 feet along the southern edge of the park. Neither roadway includes formal paths or sidewalks for pedestrian travel, and no designated bicycle facilities are provided in the area. The posted speed limit on Weke Road is 20 mph, but no speed limit signs are posted on Wilikoki Place.

The existing parking area accessed directly from the extension of Weke Road north of Wilikoki Place contains approximately 65 parking spaces. This number can vary slightly depending on how close vehicles park to one another since spaces are not striped. This parking area operates with one-way circulation, in a counterclockwise circulation and includes a combination of perpendicular and parallel parking spaces. This parking area is located north of a formal, one-way loading zone which allows park visitors and beachgoers to load and unload passengers and/or cargo prior to parking their vehicle.

The parking area along Wilikoki Place includes roughly 100 spaces with primarily perpendicular and some parallel spaces. Capacity in the parking area along Wilikoki Place can vary depending on how close vehicles park to one another since spaces are not striped. This combined with the makai lot results in a total of roughly 165 parking spaces within the designated parking areas. Access to this parking lot is provided by two driveways on Wilikoki Place, with one located roughly 50 feet east of Weke Road and another approximately 100 feet further east. This parking area can also be accessed via an opening at its east end that connects to Wilikoki Place.

Overflow parking occurs in the eastern portion of the park along the low-height vinyl fence. This overflow area also accommodates parking for vehicles and trailers using the public boat ramp. Weke Road and Wilikoki Place do not contain signs regulating on-street parking. Vehicles have been parked along Weke Road, however, vehicles typically do not park along Wilikoki Place due to the narrow shoulder width.

A survey was conducted in February 2025 to quantify the existing parking demand. Surveying was conducted on a weekday and weekend to understand patterns of parking demand at the Beach Park. Notably, the weekend count occurred on President's Day weekend and was expected to result in higher demand as compared to other typical weekends throughout the year. The survey accounted for vehicles within the park boundaries, including overflow parking along the eastern portion of the park where no formal parking areas are defined. The count was conducted by counting the initial number of vehicles parked in the lots at 7:00AM each day and then counting the number of inbound and outbound vehicles on Weke Street south of Wilikoki Place. Each outbound trip was assumed to account for one less parked vehicle, and each inbound trip was assumed to account for another parked vehicle.

Based on the survey results, it is estimated that the peak weekday parking demand is approximately 200 spaces, and the peak weekend parking demand is approximately 250 parking spaces. These estimated demands exceed the current parking supply but are reflective of parking demand at peak periods on weekdays and weekends. While a formal count of parked vehicles on Weke Road and Wilikoki Place was not conducted, it is estimated that an additional five to 10 vehicles were associated with the beach park.

Anticipated Impacts and Proposed Mitigation

The planned improvements will modify vehicular access, internal circulation, and the configuration of parking areas at Black Pot Beach Park. Based on the findings of the Parking and Circulation Assessment prepared by Fehr & Peers in October 2025, the project is anticipated to improve circulation and clarify access patterns, while slightly reducing the overall supply of formal stalls.

Reconfiguration of the parking lot along Wilikoki Place will provide two new two-way driveways, one located opposite the loading zone entrance and a second located approximately 400 feet west of Weke Road. These redesigned access points will replace the two existing driveways along Wilikoki Place to support orderly vehicle circulation and allow drivers to proceed directly into either the Wilikoki Place lot or the makai lot accessed from Weke Road. It is recommended that clear signage at Weke Road and within the park is implemented to direct drivers toward designated parking areas and reduce confusion about lot entrances and non-parking zones.

With the planned reconfiguration, the Wilikoki Place lot will provide approximately 88 stalls, inclusive of a new eastern extension with accessible spaces and walkways. When combined with the makai lot, the park will contain a total of 153 unmarked parking spaces. This represents a net reduction of approximately 12 stalls compared to the existing 165 unmarked supply space, a change expected to result in continued overflow parking in the eastern portion of the park, including the area used by boat trailers near the public boat ramp.

Peak parking demand documented by Fehr & Peers indicated weekday demand approaching 200 stalls and weekend demand approaching 250 stalls, which exceeded the current supply and extended into informal parking areas. The slight reduction in formal supply is therefore not expected to materially change the existing pattern of periodic overflow.

To improve pedestrian circulation, it is recommended that users are guided toward the existing crosswalk at the southwest corner of the Wilikoki Place lot and warning signage on both approaches is implemented to highlight pedestrian activity. These measures will help reduce conflicts between crossing pedestrians and circulating vehicles.

As part of the project, new signs will be installed to clarify no-parking areas, identify designated lot entrances, and direct visitors to additional parking near the boat ramp driveway. These measures are expected to improve wayfinding and support safer movement through the park.

Given documented parking pressures, the County may consider a parking management strategy such as a resident-only program or similar approach. A management program would require either staff verification of identification or an automated license-plate-recognition or permit receipt system. Although such a program is outside the scope of the planned improvements, it may be evaluated separately by the County as part of ongoing park management efforts.

Overall, the project is not anticipated to create adverse impacts on roadway operations or access. The reconfiguration of driveways and circulation patterns is expected to improve operational clarity. While overflow parking is expected to continue during peak periods, the proposed improvements will not substantially alter traffic volumes on Weke Road or Wilikoki Place compared to existing conditions.

3.12 Air Quality

Existing Conditions

Air quality of the project area is primarily affected by air pollutants from natural and/or vehicular sources. Natural sources of air pollution that may affect the air quality of the study area include aero-allergens from plants, and wind-blown dust from bare soil areas.

The U.S. Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS) per the requirements of the Clean Air Act (last amended in 1990) to protect public health and welfare and prevent the significant deterioration of air quality. These standards account for seven major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_X), ozone (O_3), particulate matter smaller than 10 microns (PM_{10}), particulate matter smaller than 2.5 microns ($PM_{2.5}$), sulfur oxides (SO_X), and lead. DOH, Clean Air Branch (CAB) has also established State Ambient Air Quality Standards (SAAQS) for six of these air pollutants to regulate air quality statewide. The SAAQS for carbon monoxide and nitrogen dioxide are more stringent than NAAQS. Hawai‘i also has a stringent standard for hydrogen sulfide, which is a common odorous pollutant associated with wastewater treatment facilities. DOH, CAB regularly samples ambient air quality at monitoring stations throughout the State and annually publishes this information. There is one monitoring station on Kaua‘i, the Niumalu Station, located approximately 16 miles from the project site. This station is mainly to measure air quality impacts from cruise ships. On average, the air quality at this station is “good”.

Anticipated Impacts and Proposed Mitigation

Construction-related activities for the project is anticipated to generate dust from vehicle movement, soil excavation, and commuting construction workers. However, construction activity is not anticipated to generate significant amounts of dust and will cease upon completion of construction. Additionally, State of Hawai‘i Air Pollution Control prohibits the visible emissions from construction activities at the property line. Construction will comply with provisions outlined in HAR §11-60.1-33. Effective air pollution control measures will be implemented to prevent or minimize any fugitive dust emissions caused by construction work from affecting the surrounding areas. BMPs will be implemented during construction. BMPs will be implemented throughout the short-term construction period to minimize potential threats to aquatic species that may be found in near shore areas. BMPs include, but are not limited to, phasing of construction activities, inspection of equipment to ensure equipment is operating properly, proper storage of equipment away from water bodies, replacing ground cover of disturbed

areas, providing adequate water sources at the site, the use of temporary silt fencing and screens, and proper maintenance of construction equipment and vehicles to minimize emissions. A dust control management plan may be developed.

In the long-term, the project is not anticipated to increase the intensity or use at the project site that could increase GHG emissions and affect air quality. The project is not anticipated to adversely affect air quality in the project area or greater region.

3.13 Noise

Existing Conditions

Noise in the project area is characterized by parkgoers and nearby vehicle traffic on roads and in parking areas. Existing background ambient noises within the project area are largely attributed to wind in the surrounding foliage and the ocean waves. The noise levels around the project site are consistent with noise levels found in residential areas.

Anticipated Impacts and Proposed Mitigation

There will be noise generated during the short-term construction period; however, noise levels are not expected to adversely affect residents near the project parcels. Construction activities will comply with the provisions of the regulations for community noise control articulated in HAR §11-46. The contractor will obtain a noise permit if the noise levels from construction activities are expected to exceed allowable levels. Heavy vehicles traveling to and from the project area will comply with the State's administrative rules for vehicular noise control. Over the long term, the project will not affect ambient noise levels.

3.14 Public Services

3.14.1 Medical Facilities

Existing Conditions

The closest hospital is the Samuel Mahelona Memorial Hospital located in Kapa‘a, approximately 22.7 miles from the project site. Notably, the North Shore Medical Center is located approximately 8.6 miles away from the project site and provides natural, holistic medical services.

Anticipated Impacts and Mitigation Measures

Samuel Mahelona Memorial Hospital will be accessible should there be an accident or illness affecting workers during construction period. Upon completion of construction, it is not anticipated that the project will affect services at the Samuel Mahelona Memorial Hospital.

3.14.2 Educational Facilities

Existing Conditions

The project site is located within the State Department of Education's (DOE) Kapa'a-Kaua'i-Waimea complex, comprised of 10 elementary schools, three middle schools, and four high schools. The following educational facilities serve the project area:

- Hanalei Elementary School located at 5-5415 Kuhio Highway
- Kapa'a Middle School located at 4867 Olohena road
- Kapa'a High School located at 4695 Mailihuna Road

Anticipated Impacts and Mitigation Measures

The project is not anticipated to affect existing educational facilities serving the project area or the greater Kapa'a-Kaua'i-Waimea complex. No further mitigation is proposed.

3.14.3 Recreational Facilities

Existing Conditions

Black Pot Beach Park is a County owned and maintained beach park on Kaua'i's North Shore. As discussed in *Chapter 1*, Black Pot Beach Park is a popular recreational space for the local community and visitors offering a wide range of recreational activities for boaters, fishermen, paddlers, surfers, and swimmers.

The beach park is located at the end of Weke Road which also provides access to Hanalei Pavilion Beach Park and Wai'oli Beach Park, west of Black Pot Beach Park. Hanalei Pavilion Park and Wai'oli Beach Park are owned and maintained by the County. Mauka of Weke Road is the County owned and operated Hanalei Neighborhood Center and Wai'oli Town Park, both of which provide fields and indoor recreational space in the Hanalei area. Recreational facilities in the nearby area, include the Hā'ena State Park owned and maintained by the State Department of Parks and Recreation and the Limahuli Garden Preserve.

Anticipated Impacts and Mitigation Measures

The purpose of this project is to implement the park improvements outlined in the 2021 Master Plan. The improvements identified in the 2021 Master Plan have been crafted by the community and lays the framework for a park that serves residents and visitors. The park improvements will provide a second comfort station and an open-air pavilion to accommodate existing uses. Once implemented, it is anticipated that the additional facilities will improve the experience for parkgoers. The park improvements are not anticipated to affect existing recreational facilities in the greater Hanalei or Hā'ena area.

3.14.4 Police

Existing Conditions

The Hanalei area is served by the Kauaʻi Police Department. The Kauaʻi station is located approximately 3.1 miles from the project site.

Anticipated Impacts and Mitigation Measures

The project is not anticipated to affect the Police Department's operations or ability to provide adequate services to the surrounding community. No further mitigation is proposed.

3.14.5 Fire and Emergency Services

Existing Conditions

The KFD has one fire station within a 10 mile radius of the project area, the Kauaʻi Fire Station 1, located approximately 3.1 miles east of the project site. KFD works with Emergency Medical Services (EMS), who dispatch the closest available unit. During an emergency, this may be either an EMS ambulance or a fire company depending on the type of emergency and location.

As discussed in *Section 3.5,* DLNR DOFAW responds to wildfire events on state lands and provides additional wildland fire fighting assistance when state lands are threatened.

The KFD Ocean Safety Bureau (OSB) is responsible for providing comprehensive ocean safety and lifeguard programs on the island of Kauaʻi. Throughout the island of Kauaʻi, OSB maintains 12 lifeguard stations, five of which are located in the North Shore district: Hanalei (Pavilion), Hanalei (Pine Trees), Hāʻena Beach Park, Kēʻē Beach, and Wanini Rove. OSB is equipped with roving patrol jet ski units, all-terrain vehicles, and utility vehicle mules. While OSB does not maintain a lifeguard tower at Black Pot Beach Park, lifeguards stationed at the Hanalei Pavilion Beach Park, located 0.5 miles west regularly patrol Black Pot Beach Park.

As documented in the 2023 Annual Fire Department Report, *Table 3-6* breaks down the total number of calls OSB responded to.

Table 3-6: Ocean Safety Bureau Response Calls	
Type	**Frequency**
Tower Activity	
Drownings	8
Rescues/Assist	374
Public Contact	164,397
Prevention Action	94,051
Minor First Aid	9,114
Roving Mobile Units – Summary	
Jet Ski Rescues/Assist	65
Other Rescue/Assist	134
Public Contact	45,302
Preventative Actions	42,187
Minor First Aid	1,405

Anticipated Impacts and Mitigation Measures

The project is not expected to affect the KFD or OSB's operations or ability to provide fire protection services and emergency lifeguard services to Hanalei region. Lifeguards stationed at Hanalei Pavilion Beach will continue to patrol Black Pot Beach Park.

With the recent improvements to the turnaround area at the end of Weke Road, firefighters are equipped with adequate access in the event of an emergency. Appropriate signage will be implemented to prevent parked cars in the turnaround area.

3.14.6 Solid Waste Management

Existing Conditions

Black Pot Beach Park contains trash bins scattered throughout the park. The County provides daily waste disposal services at the beach park, which is disposed of at the Hanalei Refuse Transfer Station.

Anticipated Impacts and Mitigation Measures

The construction phase of the project will generate very limited amounts of construction waste. Waste material will be transported to the Hanalei Refuse Transfer Station for proper disposal. Recycling bins will be implemented as part of the park improvements. The project is not expected to impact existing waste services in the Hanalei region.

3.15 Visual Resources

Existing Conditions

Black Pot Beach Park is notable for its pristine location nestled between the shores of the Hanalei River and Hanalei Bay. The beach park is known for its network of green open spaces that offers exceptional views of the Hanalei River and iconic Hanalei Pier with mountain ranges of the Hanalei region, including Waikoko and Wainiha, in the background (*Figure 3-27a to Figure 3-27d)*. The 2021 Master Plan recognizes the need to preserve open space to retain views at Black Pot Beach Park and calls for the maintenance of open space while integrating the planned improvements.



Figure 3-27a **View at Black Pot Beach Park – Makai (Hanalei Pier)**



Figure 3-27b **View at Black Pot Beach Park – East (Hanalei River)**



Figure 3-27c **View at Black Pot Beach – Mauka**



Figure 3-27d **View at Black Pot Beach – West**

Anticipated Impacts and Proposed Mitigation

The 2021 Master Plan has been carefully designed to maintain the natural open park setting. The planned improvements involve the construction of a second comfort station and a new open-air pavilion for families to gather. The planned improvements will provide facilities to support existing uses and enhance the user experience. The second comfort station and the open-air pavilion have been designed to standards appropriate for the beach park location and will not affect viewsheds at Black Pot Beach Park. The project will not alter the existing character of Black Pot Beach Park, nor will they further reduce the visual quality of the area. Views of Hanalei Pier will not be adversely altered by the project.

3.16 Potential Cumulative and Secondary Impacts

Cumulative effects are impacts which result from the incremental effects of an activity when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertake such other actions. To evaluate potential cumulative impacts, publications available in *TEN* within the spatial area of Hanalei and within a five-year framework were utilized to evaluate potential cumulative impacts. *Table 3-7* identifies actions that are within the temporal and spatial parameter for the project to evaluate potential cumulative impacts.

Table 3-7: Cumulative Effects/Impacts Analysis

	Spatial Scope – Hanalei		
	Temporal Scope		
Project Name	**Past**	**Present**	**Future**
2021 Wai‘oli Valley Taro Hui Long-Term Water Lease	X		
2024 Ching Young Village Waste Water Treatment Plant		X	
2024 Hanalei Colony Resort Wastewater Treatment Plant Upgrade		X	

The Wai‘oli Valley Taro Hui long-term water lease analyzed the continued diversion and use of Wai‘oli Stream water for lo‘i kalo cultivation as a means of supporting traditional and customary Native Hawaiian practices. That project received a finding of no significant impact in 2021 and was not anticipated to adversely affect the natural or human environment.

Current projects within the Hanalei area include upgrades to the Ching Young Village Shopping Center wastewater treatment plant and the Hanalei Colony Resort wastewater treatment system. Both projects received findings of no significant impact and are anticipated to improve wastewater treatment performance, which benefits water quality and public health conditions in the region.

When considered together with these past and present actions, the Black Pot Beach Park improvements represent a small, localized increment of change within an already developed park setting. The project does not expand the park footprint, introduce new urban uses, or open new areas to development. Its primary effects are to replace and modestly augment existing park facilities, improve circulation and accessibility, and incorporate resilient design standards in response to flooding and sea level rise. From a cumulative perspective:

- **Hydrology, drainage, and water quality:** The project adds only a negligible amount of impervious area, retains large open lawn areas, and incorporates pervious parking surfaces and construction BMPs. In combination with regional wastewater and water management improvements, the project's incremental contribution to stormwater runoff and pollutant loading is minor and not anticipated to result in adverse cumulative effects on the Hanalei River, Hanalei Bay, or downstream resources.
- **Biological resources:** Construction is confined to previously disturbed lawn areas, avoids intact coastal or riparian habitats, and preserves identified endangered plant individuals in place. With implementation of species-specific protection measures and erosion control BMPs, incremental effects on native species and coastal ecosystems are expected to be minimal and not cumulatively significant when added to other actions in the watershed.
- **Cultural and archaeological resources:** The project includes preservation of the reinterment buffer, informational signage of a nonspecific nature, archaeological monitoring, and continued consultation with SHPD and the KNIBC. These measures avoid adverse effects to iwi kūpuna and other historic and cultural resources. When considered alongside projects such as the Waiʻoli Valley Taro Hui lease, which supports ongoing traditional practice, the project contributes positively to the cumulative condition of cultural resources and practices rather than creating adverse cumulative effects.
- **Public services, traffic, and recreation:** The parking reconfiguration slightly reduces formal parking supply while improving circulation, signage, and pedestrian safety. Peak-period overflow parking is expected to continue but not to increase beyond existing conditions. The project does not materially change traffic volumes on Weke Road or Wilikoki Place, nor does it increase demand on water, wastewater, solid waste, or emergency services at a level that would combine with other projects to create adverse cumulative effects.
- **Visual and coastal hazards:** The project maintains the open park character and key viewplanes, including views of Hanalei Pier, while relocating new structures mauka and elevating them to address flooding and sea level rise. In combination with other regional resilience efforts, these design responses are expected to contribute modest beneficial cumulative effects related to hazard preparedness and visual quality.

Given the limited scale of physical change, the focus on replacement and enhancement of existing park functions, and the avoidance and mitigation measures incorporated into project design, the Black Pot Beach Park improvements are not anticipated to result in significant cumulative impacts when added to past, present, and reasonably foreseeable future actions in Hanalei.

Secondary impacts are effects that are caused by the project, occur later in time or farther in distance, but are still reasonably foreseeable, such as induced growth or changes in land use patterns. The project is not a phase of a larger development and does not introduce new developable land, residential units, or commercial space. It is intended to better accommodate existing recreational use rather than to attract or induce new growth. The improvements are not expected to increase population in the Hanalei area, change zoning or land use designations, or trigger additional infrastructure expansions beyond what is described in this EA. For these reasons, secondary effects such as growth-inducing impacts are not anticipated.

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Chapter 4

Alternatives to the Project

Chapter 4

Alternatives to the Project

In accordance with HAR §11-200.1-18, this section discusses alternatives that could achieve the objectives of the proposed action while avoiding or minimizing potential environmental impacts. As outlined in Chapter 2, the purpose of the project is to implement the 2021 Black Pot Beach Park Master Plan to better accommodate the park's diverse users and improve safety, accessibility, and environmental quality. This evaluation considers reasonable alternatives that could satisfy these objectives, including the No-Action Alternative, which serves as the baseline for comparison.

4.1 Alternative A – No-Action Alternative

The No-Action Alternative represents the existing condition of the site and the future condition should the project not be implemented. Under this alternative, the County would not proceed with the improvements identified in the 2021 Master Plan, and the park would remain largely in its current condition. Park users would continue to rely on limited restroom facilities, and existing congestion and parking inefficiencies would persist. Needed drainage, circulation, and safety improvements would not be realized, and opportunities to improve resource management and user experience would be deferred.

The 2021 Master Plan is a result of a community-based planning process that spanned a little over six years. The planning process included a series of meetings with various community members to identify issues and discuss potential solutions to address the issues. The 2021 Master Plan identifies facility improvements intended to improve the park for its wide range of users. The last step in the 2021 Master Plan implementation. Failure to implement the improvements would fail to meet the 2021 Master Plan objectives and would neglect years of community-based planning efforts.

Under the "No-Action Alternative" scenario, DPR would not proceed with the park improvements. Without the implementation of the park improvement, potential impacts from construction activity including dust, stormwater runoff, and soil erosion would be minimized.

Without the implementation of the planned improvements, the park would lack the additional facilities needed to accommodate existing uses. Although potential environmental effects from construction would be minimized, failing to proceed with the implementation of the 2021 Master Plan would neglect years of community planning efforts. Existing facilities would decline due to overuse, and congestion amongst park users would persist. For these reasons, the No-Action alternative was dismissed from further consideration.

4.2 Alternative B – Delayed Action

In accordance with HAR §11-200.1-18(d)(7), this EA evaluates reasonable alternatives to the proposed action, including the Delayed Action alternative. Under this alternative, implementation of the Black Pot Beach Park improvements identified in the 2021 Master Plan would be postponed to a later date.

Similar to the No-Action alternative, deferring the improvements would not provide the additional facilities needed to accommodate existing levels of park use. Without these improvements, the existing facilities would continue to experience overuse, resulting in continued congestion, limited restroom capacity, and conflicts among various park users. The delay would also defer the benefits intended to improve circulation, drainage, and public safety within the park.

Although the Delayed Action alternative would temporarily postpone construction-related effects such as dust, stormwater runoff, and soil erosion, these impacts would still occur once construction begins. BMPs would still be required to minimize these effects when construction commences. Furthermore, a prolonged delay could affect the validity of environmental permits and entitlements, potentially requiring renewed review or additional compliance with applicable regulations before construction could proceed.

Because this alternative would not provide the necessary facility improvements in a timely manner, would prolong existing operational deficiencies, and would not avoid or meaningfully reduce potential environmental effects compared to the proposed action, it is not considered a practicable alternative for implementation.

4.3 Alternative C – Alternative Design: 2021 Site Configuration

Under the Alternative Design scenario, the park improvements would follow the configuration as shown in the 2021 Master Plan. In comparison to the 2021 site configuration, the planned site configuration (*Figure 2-12)* relocates the second comfort station and reconfigures the parking area along Wilikoki Place. The second comfort station has been relocated from Flood Zone VE (Coastal High Hazard Area) to Flood Zone AEF (Floodway Area) and in an area less vulnerable to sea level rise. Locating the second comfort station in an area further mauka minimizes the potential damage from flooding. By locating the second comfort station in Flood Zone AEF rather than Zone VE, fill support may be utilized to help raise the structure to meet the minimum BFE. Fill support will further stabilize the foundation of the comfort station. The County Engineer will be consulted with to ensure the comfort station is designed to meet the County's design requirements for non-residential structures in a floodway area.

Implementing the site configuration shown in the 2021 Master Plan would not preclude construction activity, and potential effects from construction including dust, stormwater runoff, and soil erosion would need to be closely monitored. In comparison to the site configuration shown in *Figure 2-12,* the 2021 site configuration locates the second comfort station in closer proximity to the Hanalei River and sandy beach area. Runoff would need to be carefully monitored given the proximity to the nearby waterways. The site configuration shown in *Figure 2-12* places the second comfort station at a further distance from nearby watercourses, thereby minimizing the immediate threat of construction related impacts.

The Alternative Design scenario would follow the site configuration in the 2021 Master Plan. This site configuration would place the second comfort station within Flood Zone VE (Coastal High Hazard Area) and in an area with a higher sea level rise flood zone, increasing the minimum BFE for the second comfort station. Following the 2021 site configuration would meet the need for additional facilities, however, would place the facility in an area with greater exposure to damage from natural hazards. For these reasons, the Alternative Design was dismissed from further evaluation.

4.4 Alternative D – Preferred Alternative

The Preferred Alternative is the implementation of the park improvements identified in the 2021 Master Plan as configured in *Figure 2-12.* The park improvements will accommodate the park's diverse users and improve safety, accessibility, and environmental quality.

As analyzed in *Chapter 3*, the project has been evaluated to determine potential effects on the natural and human environment, and identifies measures to mitigate potential effects. Appropriate mitigation measures and BMPs will be implemented during construction to minimize dust, stormwater runoff, and soil erosion. The configuration of the planned improvements was carefully designed to account for site constraints along the coastline and Hanalei River. DPR will coordinate with the County Engineer to confirm that the proposed comfort station complies with applicable design standards for the floodway area. Upon completion of the park improvements, the park will be equipped with additional facilities to accommodate existing uses while maintaining environmental quality at the park.

As carefully evaluated in this Chapter,

- The "No-Action Alternative" would not address the need for additional park facilities to accommodate existing uses.
- Delaying the implementation of the park improvements would fail to provide additional facilities at the park in a timely manner. Furthermore, delaying implementation may endanger the validity of the environmental permits and entitlements to implement the park improvements.
- Reverting to the 2021 site configuration would place the comfort station in an area with a higher risk of exposure to natural hazards.

The Preferred Alternative provides the facilities and improvements necessary to accommodate current and future park users in a safe, sustainable manner. The design reflects careful coordination with the community and consideration of the park's natural setting, balancing recreational demand with environmental protection. Implementation of this alternative is expected to result in beneficial impacts by improving park functionality, reducing user conflicts, and maintaining Black Pot Beach Park as a valued community resource.

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Chapter 5

Plans and Policies

Chapter 5

Plans and Policies

The consistency of the project with applicable Federal, State, and County planning and land use objectives, policies, principles and guidelines are discussed below.

5.1 Americans with Disabilities Act of 1991

In 1991, the Federal government enacted the Americans with Disabilities Act to provide equal accessibility for persons with disabilities. Part of this statute requires building designs to consider and incorporate the needs of persons with disabilities. HRS §103-50 states,"…all plans and specifications for the construction of public buildings, facilities, and sites shall be prepared so that the buildings, facilities, and sites are accessible to and usable to persons with disabilities." The Disability and Communication Access Board (DCAB) shall adopt rules for the design of buildings, facilities, and site, by or on behalf of the State and Counties.

Discussion: The park improvements will be designed and constructed to meet ADA standards and applicable building standards articulated in Chapter 12 of the Kaua'i County Code.

5.2 Coastal Zone Management Act

In 1972, the Federal government enacted the Coastal Zone Management Act (CZMA) to effectively manage, use, protect, and develop coastal areas in the U.S. The CZMA was a government response to increasing and competing demands upon habitats and resources of coastal lands and waters. Such demands often resulted in a loss of living marine resources and wildlife; depleted nutrient-rich areas; shoreline erosion; diminished open space for public use; and permanent and adverse changes to ecological systems. Under the CZMA, states are authorized to work in a unified manner with Federal and local governments to develop programs, policies, evaluation criteria, and development standards that lend to the effective protection and prudent use of coastal lands and waters.

The enforcement authority for the Federal Coastal Management Program (Public Law 104-150, as amended in 1996), has been delegated to the State under HRS, Chapter 205A, Coastal Zone Management Program. The State defines the coastal zone management area as the following:

"All lands of the State and the area extending seaward from the shoreline limit of the State's police power and management authority, including the United States territorial sea."

Discussion: In Hawai'i, the coastal zone management area encompasses all lands of the State, and therefore includes the project area. Further discussion on the compliance with the State's CZM objectives and policies is located in *Section 5.5.*

5.3 Hawai‘i State Land Use District Guidelines

Under HRS Chapter 205, the State Land Use Commission (LUC) is responsible for classifying all lands of the State in one of four categories: Urban, Rural, Agricultural, and Conservation lands. The intent of the LUC is to regulate the classification and uses of lands to accommodate growth and development as needed, and to retain and protect important agricultural and natural resource areas. Additionally, the LUC is also responsible for administering all requests for district reclassifications and/or amendments to district boundaries.

Discussion: As classified by the LUC, the project site is located within the State Urban, Agricultural, and Conservation District (*Figure 1-3*). The planned improvements will be completed within the State Urban and Agricultural District and is consistent with permitted uses for the Urban and Agricultural District with a SMA (Major) Use permit and will not require district reclassification or boundary amendments. No work is planned in the Conservation District.

5.4 Hawai‘i State Plan

The Hawai‘i State Plan establishes a statewide planning system that provides goals, objectives, and policies that detail priority directions and concerns of the State of Hawai‘i; these will be discussed as they relate to the project.

It is the goal of the State, under the Hawai‘i State Planning Act (Chapter 226, HRS), to achieve the following:

- A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai‘i’s present and future generations.
- A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.
- Physical, social, and economic well-being, for individuals and families in Hawai‘i, that nourishes a sense of community responsibility, of caring, and of participation in community life (Chapter 226-4, HRS).

Objectives and policies of the State Plan that pertain to the project are as follows:

Section 226-6 Objectives and Policies for the economy–in general:

(b) To achieve the general economic objectives, it shall be the policy of this State to:

(19) Promote and protect intangible resources in Hawai‘i, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.

Discussion: The project supports State’s objectives for the general economy. The project will implement the improvements identified in the 2021 Master Plan. The 2021 Master Plan is a guide to accommodate existing uses and balance the wide range of recreational activities at the park. Implementation of the improvements will improve Black Pot Beach Park for the local community and visitors.

Section 226-11 Objectives and policies for the physical environment–land-based, shoreline, and marine resources:

(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:

(1) Prudent use of Hawai'i's land-based, shoreline, and marine resources.

(2) Effective protection of Hawai'i's unique and fragile environmental resources.

(b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

(3) Take into account the physical attributes of areas when planning and designing activities and facilities.

(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.

(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai'i.

(8) Pursue compatible relationships among activities, facilities, and natural resources.

(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.

Discussion: The project is consistent with the State's objectives and policies regarding land-based, shoreline, and marine resources. The proposed improvements implement the 2021 Master Plan, which was developed through a community-driven process to accommodate existing uses and balance the park for its wide range of users. The plan was shaped by the physical context of the park, which lies between the Hanalei River and Hanalei Bay, and places inland and mauka to reduce exposure to flooding, coastal hazards, and sea level rise.

The project supports prudent use of land-based and shoreline resources by locating improvements within previously disturbed areas and maintaining open lawn areas for natural drainage. The facility layout promotes compatibility between land-based activities, water-based recreation, and nearby natural resources.

A flora and fauna survey was conducted for this EA and documented the presence of listed Loulu species within the park. These plants will be preserved in place, and construction activities will avoid disturbance to their habitat. BMPs will be implemented during the short-term construction period to minimize potential effects on the Hanalei River, Hanalei Bay, and surrounding coastal resources.

The project promotes multiple and beneficial use of the park's natural setting without generating costly or irreparable environmental damage. The improvements will support ongoing public recreational access while maintaining the park's natural character and ecological function.

Section 226-12 Objectives and policies for the physical environment–scenic, natural beauty, and historic resources:

(a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawai'i's scenic assets, natural beauty, and multi-cultural/historical resources.

(b) To achieve the scenic, natural beauty, and historic resources objectives, it shall be the policy of this State to:

(1) Promote the preservation and restoration of significant natural and historic resources.

(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.

(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawai'i's ethnic and cultural heritage

(5) Encourage the design of developments and activities that complement the natural beauty of the islands.

Discussion: The project supports the State's objectives and policies for scenic resources, natural beauty, and historic and cultural resources. Black Pot Beach Park is a significant gathering place that provides panoramic views of Hanalei Bay, Hanalei Pier, and the surrounding mountain landscape. The 2021 Master Plan was developed through a community-driven process to identify improvements that maintain the park's visual character and cultural significance while accommodating its wide range of users.

The proposed improvements preserve scenic vistas by maintaining open lawn areas, avoiding view corridors, and designing new facilities at an appropriate scale for the coastal setting. Structures have been sited inland and mauka to preserve shoreline views and to complement the natural landscape. A CIA was prepared for this EA and documented the longstanding cultural and recreational practices associated with Black Pot Beach Park. The project supports the preservation of these cultural traditions by providing improved facilities that serve canoe paddling, fishing, family gatherings, and other significant local activities. No historic structures will be removed or altered as part of the proposed action, and the cultural reinterment area will remain protected with an appropriate buffer.

The design of the improvements is intended to complement the natural beauty of the area and to maintain the park as a culturally meaningful public space. The combination of sensitive siting, preservation of views, continued protection of cultural resources, and support for traditional recreational practices demonstrates consistency with the policies of HRS §226-12.

Section 226-13 Objectives and policies for the physical environment– land, air, and water quality:

(a) Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:

(1) Maintenance and pursuit of improved quality in Hawai'i's land, air, and water resources.

(2) Greater public awareness and appreciation of Hawai'i's environmental resources.

(b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to:

(2) Promote the proper management of Hawai'i's land and water resources.

(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawai'i's people.

(5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.

(6) Encourage design and construction practices that enhance the physical qualities of Hawai'i's communities.

(8) Foster recognition of the importance and value of the land, air, and water resources to Hawai'i's people, their cultures and visitors.

Discussion: The project supports the State's objectives and policies relating to land, air, and water quality. The proposed improvements implement the 2021 Master Plan, which was developed through a community-driven planning process to accommodate existing uses while maintaining the park's natural and cultural character. The Master Plan provides a framework for facility upgrades that preserve environmental quality and promote public awareness of the park's land, air, and water resources.

The second comfort station has been strategically located further inland and mauka from the location originally identified in the 2021 Master Plan to reduce exposure natural hazards. The new location is outside the Coastal High Hazard Area (Zone VE) and within the Floodway Area (Zone AEF), where fill material may be used to meet minimum flood design elevations. The finished floor elevation will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE.

BMPs will be implemented during the short-term construction period to minimize potential impacts on air quality, water quality, and nearby sensitive resources. These measures include dust control, erosion and sedimentation control, and proper handling of construction materials. Long-term stormwater management measures, including maintaining open lawn areas for natural drainage and incorporating porous materials where appropriate, will contribute to the continued protection of water resources.

The project supports proper management of land and water resources and promotes design practices that enhance the physical qualities of the community. By improving park facilities in a manner that is responsive to natural hazards and environmental conditions, the project fosters public recognition of the importance of Hawai'i's land, air, and water resources for residents, cultural practitioners, and visitors.

Section 226-14 Objectives and policies for facility systems– in general:

(a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of the provision of water, transportation, sustainable development, climate change adaptation, sea level rise adaptation, waste disposal, and energy and telecommunication systems that support statewide social, economic and physical objectives.

(b) To achieve the general facility systems objective, it shall be the policy of this State to:

(1) Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.

(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.

(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.

Discussion: The project supports the State's objectives and policies for facility systems. The proposed improvements implement the 2021 Master Plan, which was created through a community-driven planning process to support existing recreation uses and to balance the needs of diverse park users. The Master Plan identifies facility upgrades that respond to long-term community needs and changing priorities while maintaining the park's natural character.

The project aligns with statewide facility system objectives by improving park infrastructure in a manner that supports climate change adaptation and sea level rise considerations. The siting of the second comfort station inland and at an appropriate elevation reduces exposure to coastal hazards and promotes resilient design. Circulation and parking improvements support safe and efficient access within the park and are consistent with County plans to coordinate transportation and park facility needs.

The improvements make prudent use of existing resources by locating new facilities within previously disturbed areas, maintaining open spaces for stormwater infiltration, and incorporating landscaping that complements the coastal setting. The project is designed to be supported by existing water, wastewater, and utility capacities without substantial increases in demand. Waste disposal needs will continue to be managed through County services, and recycling opportunities will be expanded at the park.

The project is consistent with the 2018 County of Kaua'i General Plan. A detailed discussion of General Plan consistency is provided in *Section 5.8*.

Section 226-16 Objectives and policies for facility systems–water:

(a) Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.

(b) To achieve the facility systems water objective, it shall be the policy of this State to:

(1) Coordinate development of land use activities with existing and potential water supply.

Discussion: The project supports the State's objectives and policies for water facility systems. The proposed improvements implement the 2021 Master Plan and are consistent with the land use guidance provided in the 2018 County of Kaua'i General Plan and the Comprehensive Zoning Ordinance. The planned improvements rely on existing County water infrastructure that currently serves Black Pot Beach Park and the surrounding area.

The second comfort station will connect to the internal park water system located beneath Wilikoki Place, and a new water submeter will monitor usage associated with the new facility. The project is not expected to create demands that exceed existing water system capacities for domestic or recreational purposes. Final design and permitting will include coordination with the Department of Water to confirm meter sizing, fire flow requirements, and any related construction or service needs.

A detailed discussion of water supply, system capacity, and regulatory requirements is provided in *Section 3.10*.

Section 226-23 Objectives and policies for socio-cultural advancement–leisure:

(a) Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.

(b) To achieve the leisure objective, it shall be the policy of this State to:

(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational, opportunities and improved facility design and maintenance.

(4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved.

(5) Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.

(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.

(10) Assure adequate access to significant natural and cultural resources in public ownership.

Discussion: The project supports the State's objectives and policies for socio-cultural advancement related to leisure. Black Pot Beach Park is a longstanding gathering place for residents and visitors and provides opportunities for cultural, recreational, and educational activities. The 2021 Master Plan was developed through a community-driven process to address current needs while maintaining the park's traditional and cultural significance for future generations. The proposed improvements accommodate the park's diverse recreational uses in a safe and sustainable manner.

Archaeological investigations have been completed at Black Pot Beach Park and a CIA has been prepared in support of this EA. The reinterment area documented in these studies will remain preserved with an appropriate buffer, as reflected in *Figure 2-12*. Signage will be incorporated to support educational and informational purposes while respecting the cultural sensitivity of the area.

The addition of a second comfort station, improved circulation and parking layouts, and expanded shaded areas will enhance the safety, accessibility, and enjoyment of recreational experiences at the park. These facilities support traditional practices such as canoe paddling, fishing, family gatherings, and community events that have been part of the area for generations.

The project promotes continued public access to natural and cultural resources that are under public ownership while preserving the park's scenic and cultural values. The improvements are designed to serve current users and to maintain the park as an important recreational and cultural destination for future generations.

Section 226-25 Objectives and policies for socio-cultural advancement–culture:

(a) Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of cultural identities, traditions, values, customs, and arts of Hawaii's people.

(b) To achieve the culture objective, it shall be the policy of this State to:

(1) Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and the history of Hawaii.

(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaii's people and which are sensitive and responsive to family and community needs.

Discussion: The project supports the State's objectives and policies for socio-cultural advancement related to cultural identity, traditions, and community values. Black Pot Beach Park is an important gathering place where long-standing cultural and recreational practices continue to be carried out by residents, cultural practitioners, and community organizations. The 2021 Master Plan was created

through a community-driven process that reflects these cultural values and identifies improvements that maintain the area's significance to the Hanalei community.

A CIA was prepared in support of this EA and documented the cultural practices and traditions associated with the park. The project supports these practices by improving facilities that serve canoe paddling, shoreline gathering, family events, and other activities that are part of the area's cultural identity. The reinterment area documented in the AIS and CIA will remain protected with an appropriate buffer, supporting continued respect for ancestral resources.

The proposed improvements are designed to meet community needs while maintaining the park's cultural character. By enhancing restroom facilities, circulation routes, and shaded gathering areas, the project promotes conditions that support cultural values, customs, and community activities. The improvements also provide opportunities for increased understanding of the cultural history of the area through educational and informational signage that is respectful of the park's cultural context.

Overall, the project maintains and supports the cultural identity and practices associated with Black Pot Beach Park and is consistent with the State's objectives for cultural advancement.

Section 226-104 Population growth and land resources priority guidelines:

(b) Priority guidelines for regional growth distribution and land resources utilization:

(12) Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.

(13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.

Discussion: The project supports the State's priority guidelines for population growth and land resource utilization. The proposed improvements implement the 2021 Master Plan, which was developed through a community-driven process to accommodate existing recreational uses while maintaining the park's natural and cultural setting. The improvements supplement the existing comfort station and provide updated facilities that support current park users without inducing new growth or development pressures.

The Master Plan was shaped by the unique location of Black Pot Beach Park between the Hanalei River and Hanalei Bay, where careful siting and design are required to protect shoreline resources and open space. The proposed facilities are located inland from the coastline, outside the Conservation District, and within previously disturbed areas of the park. This approach preserves shoreline access, scenic resources, and open space for future generations.

BMPs will be implemented during the short-term construction period to minimize potential effects on the Hanalei River, Hanalei Bay, and adjacent coastal resources. The project maintains the park's open space setting and scenic quality while providing improved facilities that meet existing needs. These measures are consistent with the State's priorities to use limited land resources wisely and to protect and enhance Hawai'i's shoreline and scenic resources.

Section 226-109 Climate change adaptation priority guidelines:

Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and

cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:

> *(5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;*
>
> *(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.*

Discussion: The project supports the State's priority guidelines for climate change adaptation. The Master Plan was developed with careful consideration of the park's coastal setting between the Hanalei River and Hanalei Bay, and the proposed improvements incorporate adaptive measures that respond to projected climate-related impacts. The second comfort station has been relocated further inland and mauka from the location originally identified in the 2021 Master Plan to reduce exposure to natural hazards. The revised location lies outside the Coastal High Hazard Area (Zone VE) and within the Floodway Area (Zone AEF), where fill material may be utilized to meet required flood design elevations. The finished floor elevation will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE.

The project maintains open lawn areas and existing natural features that support drainage, floodplain function, and coastal resilience. These characteristics reflect the priority guidelines to preserve and restore natural landscape features that have the capacity to avoid or minimize climate change impacts. The planned improvements do not alter beaches, dunes, wetlands, or other natural systems that contribute to the resilience of the Hanalei shoreline.

BMPs will be implemented during the short-term construction period to minimize potential impacts on the Hanalei River and Hanalei Bay, and long-term design measures have been incorporated to address sea level rise, stormwater management, and coastal hazards. The improvements are consistent with the Sea Level Rise Constraints District requirements in the Kaua'i County Code and reflect an integrated approach to planning for the natural and built environment in the context of climate change.

A detailed analysis of natural hazards and anticipated sea level rise conditions is provided in *Section 3.5*.

5.5 Hawai'i Coastal Zone Management Program

The Coastal Zone Management Program (CZMP) is a comprehensive nationwide program that establishes and enforces standards and policies to guide the development of public and private lands within the coastal areas. In the State of Hawai'i, the CZMP is implemented through the State Coastal Zone Management Law, codified in HRS Chapter 205A (State CZM Law). The State CZM Law's objectives and policies address ten subject areas including: recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection, and marine resources. Virtually all relate to potential development impacts on the shoreline, near shore, and ocean area environments.

The State CZM Law also requires each county to designate and regulate Special Management Areas within the State's coastal areas. Any "development," as defined by the State CZM Law and county regulations, located within the SMA requires an SMA permit. The entire project area is within the SMA as defined by the County and as such, requires an additional review under the County SMA rules. The

following subsections examine the applicability of the project with the objectives and policies of the Hawai'i CZMP.

PART I. COASTAL ZONE MANAGEMENT

RECREATIONAL RESOURCES

Objective: Provide coastal recreational opportunities accessible to the public.

Policies:

(A) Improve coordination and funding of coastal recreational planning and management; and

(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

i. Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

ii. Requiring restoration of coastal resources that have significant recreational value and ecosystem value, including but not limited to coral reefs, surfing sites, fishponds, sand beaches, and coastal dunes, when these resources will be unavoidable damaged by development; or requiring monetary compensation to the State for recreation when restoration is not feasible or desirable;

iii. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

iv. Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

v. Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

vi. Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

vii. Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, artificial reefs for surfing and fishing; and

viii. Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, county authorities; and crediting that dedication against the requirements of Section 46-6.

Discussion: The project supports the Coastal Zone Management Program objectives and policies for recreational resources. Black Pot Beach Park is a longstanding gathering place for residents and visitors and provides a wide range of coastal recreational opportunities. The 2021 Master Plan was developed through a community-driven process to improve facilities in a manner that maintains the park's recreational value.

The proposed improvements supplement the existing comfort station, improve circulation and parking, and provide additional shaded areas to accommodate current levels of use. The second comfort station is located inland and mauka to reduce exposure to coastal hazards while preserving shoreline access and recreational activities along Hanalei Bay. Parking areas will use crushed gravel to reduce runoff, and landscaping will feature native coastal species that complement the natural setting.

BMPs will be implemented during construction to minimize sedimentation, runoff, and other potential impacts to Hanalei River and Hanalei Bay. The project maintains public recreational access to the shoreline and supports continued recreational use of this important coastal area.

HISTORIC RESOURCES

Objective: Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

(A) Identify and analyze significant archaeological resources;

(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and

(C) Support state goals for protection, restoration, interpretation and display of historic resources.

Discussion: The project supports the CZMP's objectives and policies regarding historic resources. An AIS has been completed for the park. The reinterment area documented in that study will be preserved with an appropriate buffer, as shown in *Figure 2-12*.

Signage will be incorporated to provide general educational context while respecting the cultural sensitivity of the area. As required by HRS §6E-8, completed archaeological studies will be submitted to SHPD for review and concurrence, and consultation with SHPD will continue during the design phase. *Section 3.7* provides additional details on archaeological resources and their protection.

SCENIC AND OPEN SPACE RESOURCES

Objective: Protect, preserve and where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

(A) Identify valued scenic resources in the coastal zone management area;

(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;

(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

(D) Encourage those developments that are not coastal dependent to locate in inland areas.

Discussion: The project supports the CZMP's scenic and open space objectives. The improvements implement the 2021 Master Plan, which maintains large open lawn areas and preserves existing coastal views. The new comfort station and open-air pavilion are sited inland from the coastline, outside the Conservation District, and do not alter shoreline views or the natural landforms that define Black Pot Beach Park.

Views toward Hanalei Pier, Hanalei Bay, and inland mountain ranges will remain unchanged. Native Hawaiian landscaping will complement the coastal setting and maintain the park's open space character.

COASTAL ECOSYSTEMS

Objective: Protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

(B) Improve the technical basis for natural resource management;

(C) Preserve valuable coastal ecosystems of significant biological or economic importance, including reefs, beaches, and dunes;

(D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

(E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint sources of water pollution control measures;

Discussion: The project supports the CZMP's objectives and policies for coastal ecosystems. Facilities are located within previously disturbed areas, and no work will occur in the Conservation District or in areas of reefs, dunes, or beaches.

The second comfort station has been relocated inland and mauka to reduce exposure to coastal flooding and sea level rise. Parking surfaces will use crushed gravel to improve infiltration and reduce runoff. BMPs will be implemented during the short-term construction period to prevent sedimentation and protect water quality in Hanalei River and Hanalei Bay.

A flora and fauna survey conducted for this EA did not identify rare or endangered species that would be adversely affected. With inland siting and appropriate design, the project is not anticipated to create substantial impacts on coastal ecosystems.

ECONOMIC USES

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

(A) Concentrate coastal dependent development in appropriate areas;

(B) Ensure that coastal dependent development, and coastal related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts in the coastal zone management area; and

(C) Direct the location and expansion of coastal development to areas designated and used for that development and permit reasonable long-term growth at those areas, and permit coastal development outside of designated areas when:

(i) Use of presently designated locations is not feasible;

(ii) Adverse environmental effects and risks from coastal hazards are minimized; and

(iii) The development is important to the State's economy.

Discussion: The project supports the Coastal Zone Management Program's economic use policies. Black Pot Beach Park serves residents and visitors and contributes to the local recreational economy. The improvements identified in the 2021 Master Plan support continued safe and sustainable recreational use of the shoreline without expanding development into sensitive coastal areas.

New facilities are strategically located inland, outside the Coastal High Hazard Area and Conservation District. BMPs will be implemented during construction to protect coastal waters and reduce environmental impacts. The improvements enhance public use of an existing coastal facility in a manner compatible with the park's setting and recreational purpose.

COASTAL HAZARDS

Objective: Reduce hazard to life and property from coastal hazards.

(A) Develop and communicate adequate information about the risks of coastal hazards;

(B) Control development, including planning and zoning control in areas subject to coastal hazards;

(C) Ensure that developments comply with requirements of the National Flood Insurance Program; and

(D) Prevent coastal flooding from inland projects.

Discussion: The project supports the CZMP's objective and policies with regards to coastal hazards. An in-depth analysis on coastal hazards is located in *Section 3.5*. The Master Plan has been carefully crafted and designed given the location of the park nestled between the Hanalei River and Hanalei Bay. The second comfort station has been strategically relocated further inland and mauka from its original identified location in the 2021 Master Plan to reduce its exposure to flooding and sea level rise. Additionally, the second comfort station has been relocated from the Coastal High Hazard Area (Flood Zone VE) to the Floodway Area (Zone AEF) to allow fill material to meet the minimum design elevation requirements. The FFE of the second comfort station will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE. No new structures will be constructed in the Conservation District. BMPs will be implemented during the short-term construction period to minimize potential effects to the Hanalei River and Hanalei Bay.

The park improvements have been designed to standards appropriate coastal area. The additional facilities incorporate adaptive resilient design measures and adhere to the Sea Level Rise Constraints District guidelines to minimize potential effects from anticipated sea level rise.

MANAGING DEVELOPMENT

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;

(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and

(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Discussion: The project supports the CZMP's policies regarding managing development. DPR worked extensively with the community during preparation of the 2021 Master Plan to identify facility needs and address coastal management considerations.

This Draft EA has been prepared in accordance with HRS Chapter 343 and HAR Chapter 11-200.1, which require disclosure of potential impacts and opportunities for public review. The Environmental Review Program will publish the Draft EA for a 30-day comment period. Agencies and community members will have the opportunity to provide input, and comments will be addressed in the Final EA. This process promotes transparent communication about short- and long-term effects of development within the coastal zone.

PUBLIC PARTICIPATION

Objective: Stimulate public awareness, education, and participation in coastal management.

(A) Promote public involvement in coastal zone management processes;

(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Discussion: The project supports the CZMP's objective for public participation. The 2021 Master Plan was developed through an extensive community planning process that involved park users, cultural practitioners, adjacent landowners, and other stakeholders. Public involvement continues through the HRS Chapter 343 process, which provides a formal opportunity for public comment.

The Draft EA will be published by the Environmental Review Program for a 30-day public review period. Agencies and community organizations consulted during early consultation will again have the opportunity to comment. This process promotes public awareness and involvement in coastal management decisions related to the park.

BEACH PROTECTION

Objective: Protect beaches for public use and recreation.

(A) Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion;

(B) Prohibit construction of private shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;

(C) Minimize the construction of public shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;

(D) Minimize grading of and damage to coastal dunes;

(E) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and

(F) Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.

Discussion: The project supports the CZMP's beach protection objectives. All new structures are located inland from the shoreline setback and outside the Conservation District. The project does not involve shoreline hardening, grading of dunes, or any action that would affect beach processes or public access.

Construction BMPs will be implemented to minimize runoff into Hanalei River and Hanalei Bay. Landscaping will consist of native coastal plants that support shoreline stability. The improvements maintain open space and continue to allow public use of the beach area.

MARINE AND COASTAL RESOURCES

Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

(D) Promote research, study, and understanding of ocean and coastal processes, impacts of climate change and sea level rise, marine life, and other ocean resources to acquire and inventory information necessary to understand how coastal development activities relate to and impact ocean and coastal resources; and

(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Discussion: The project is consistent with the CZMP's objectives for marine and coastal resources. All new facilities are located inland from the shoreline, and no work is proposed within reefs, tidal zones, or other sensitive coastal habitats.

A flora and fauna survey conducted for this EA did not identify rare or endangered species that would be adversely affected by the project. Construction BMPs will be implemented to protect nearshore waters and reduce potential turbidity or sedimentation. The improvements support sustainable public use of the coastal area while avoiding impacts on marine resources.

5.6 Hawai‘i 2050 Sustainability Plan

The long-term strategy of the Hawai‘i 2050 Sustainability Plan is supported by its main goals and objectives of respect for culture, character, beauty, and history of the State's island communities; balance among economic, community, and environmental priorities; and an effort to meet the needs of the present without compromising the ability of future generations to meet their own needs. To continue coordination and implementation of Hawai‘i's sustainability and climate adaptation goals,

principles, and policies, pursuant to HRS §226-65, the Hawai'i 2050 Sustainability Plan has been updated to align the state's goals, policies, and actions in accordance with the United Nations Sustainability Development Goals and recommends sustainability and climate change actions for the 2020-2030 decade. The updated plan identified eight (8) focus areas that will help Hawai'i become more equitable, climate resilient, and sustainable during this decade of action. The focus areas that are pertinent to the project are discussed below:

Focus Area 3: *Improve climate resilience by continuing to monitor and adapt to climate impacts and take actions to increase the resilience of the natural and built environments and their occupants.*

Focus Area 4: *Advance sustainable communities through strategies that improve land use and access to green space, advance sustainable practices in schools, and encourage sustainable buildings and infrastructure.*

Focus Area 7: *Preserve the natural environment, including a focus on clean water, marine resources and ecosystems, and natural resources protection.*

Discussion: The project supports the goals and action items of the Hawai'i 2050 Sustainability Plan and aligns with the focus areas relevant to coastal parks and public facilities. The 2021 Master Plan was developed through a community-driven process to maintain the character of Black Pot Beach Park while improving facilities to meet current and future needs. The proposed improvements supplement the existing comfort station, improve circulation and access, and maintain open space for recreational use.

The Master Plan accommodates its coastal location between the Hanalei River and Hanalei Bay by incorporating design measures that respond to climate impacts and promote long-term resilience. The second comfort station has been relocated further inland and mauka from the original 2021 Master Plan location to reduce exposure to flooding and sea level rise. The revised location within Flood Zone AEF allows the use of fill to reach required minimum flood elevations, and the finished floor elevation will be set at 10 and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE. No new structures will be constructed in the Conservation District or the nearshore area.

Parking and paved areas will use crushed gravel to reduce runoff, and open lawn areas will be retained to support natural drainage and infiltration. Landscaping will consist of native coastal plant species. BMPs will be implemented during the short-term construction period to minimize potential effects on the Hanalei River and Hanalei Bay.

The improvements reflect resilient design practices that align with Focus Area 3 of the Hawai'i 2050 Sustainability Plan by supporting adaptation to climate impacts. The project advances Focus Area 4 by improving public access to green space and upgrading park infrastructure in a sustainable manner. The project also supports Focus Area 7 by preserving natural coastal resources, protecting water quality, and reducing potential impacts on marine and nearshore ecosystems.

5.7 County of Kaua'i Comprehensive Zoning Ordinance

The County of Kaua'i's Comprehensive Zoning Ordinance (CZO) provides regulations and standards for land development and the construction of buildings and other structures in the County of Kaua'i. These regulations and standards are intended to regulate development to ensure its compatibility with the overall character of the island. The CZO was initially adopted in 1972. Since that time, there have been

several amendments to specific provisions. The County concluded the first of two phases of an effort to update the CZO with amendments adopted on December 3, 2012 (Ordinance No. 935). Ordinance No. 935 is the newly adopted zoning code for the County of Kaua'i and will serve as the official zoning code until the County completes the second phase of the project.

The project site is located in the County's Open District (*Figure 1-4).* Pursuant to Table 8-2.4 identifying permitted wses in the CZO, Parks and monuments are a permitted use in the Open District.

Discussion: The project is consistent with the County's Comprehensive Zoning Ordinance and the Open District designation that applies to the project site. The Open District allows parks and monuments as permitted uses, and Black Pot Beach Park is an established County park within this zoning category.

The proposed improvements implement the 2021 Master Plan, which was developed to support existing recreational uses and maintain the park's open space character. The improvements supplement the existing comfort station and enhance park facilities without altering the land use designation or changing the overall character of the area. The project remains compatible with the intent of the Open District to preserve open space and accommodate recreational uses.

5.8 County of Kaua'i General Plan

The Kaua'i Kākou, the 2018 Kaua'i County General Plan, establishes priorities for managing growth and community development over a 20-year planning timeframe. The plan guides future action concerning land use and development regulations, urban renewal programs, and expenditures for capital improvements. Goals and policies that are applicable to the project are discussed below:

Goal 1: A Sustainable Island – Sustainability means growing responsible to meet the needs of current and future generations without depleting importance resources.

Goal 2: A Unique and Beautiful Place – Kaua'i's people share responsibility, or kuleana, to care for and protect treasured resources, traditions, and qualities of the natural, built, and human environment.

Goal 3: A Healthy and Resilient People – We seek to increase the resilience and vitality of Kaua'i's communities and promote better health outcomes through improving the natural, built, and social environment.

Goal 4: An equitable place, with opportunity for all.

Discussion: The project supports the goals of the Kaua'i General Plan. The 2021 Master Plan was developed through a community-driven planning process that identified improvements to meet current needs while maintaining the park's natural, cultural, and recreational significance. The proposed improvements supplement the existing comfort station, provide safer circulation, and maintain open space for public recreation. These improvements help sustain a heavily used coastal park in a manner that maintains its visual character and supports equitable public access for residents and visitors.

The project also supports resilience and sustainability goals by incorporating adaptive design measures that respond to flooding, sea level rise, and other hazards associated with the park's coastal location.

Policy #1: Manage Growth to Preserve Rural Character

Policy #8: Protect Kaua'i's Scenic Beauty

Policy #12: Protect Our Watersheds

Policy #15: Respect Native Hawaiian Rights and Wahi Pana

Policy #16: Protect Access to Kaua'i's Treasured Places

Discussion: The project supports the identified policies. The 2021 Master Plan maintains the park's open space character and preserves views of Hanalei Bay, Hanalei Pier, and the surrounding mountain landscape. All new facilities are located inland from the shoreline, and no structures will be constructed in the Conservation District. These siting decisions maintain the rural and scenic qualities of the beach park and protect access to shoreline resources.

A CIA was prepared for this EA. The reinterment area identified through archaeological studies will remain preserved with an appropriate buffer. The addition of improved public facilities supports traditional recreational practices, including canoe paddling, fishing, and gathering activities that are part of the cultural identity of the Hanalei community.

Open lawn areas will continue to function as natural drainageways that reduce stormwater runoff to Hanalei River and Hanalei Bay, supporting watershed protection.

Sector: V. Shared Spaces

2. Parks

Objective: To provide a variety of quality and accessible parks and recreational facilities.

C. Projects and Programs

1. Support priority projects in the Kaua'i Parks & Recreation Master Plan.

2. Prioritize park improvements and provide safe routes to parks, especially in low-income neighborhoods with high concentrations of youth.

5. Promote social interaction through facility improvements, such as pavilions, shade trees, and seating.

9. Provide accessibility features at popular facilities such as beach parks.

10. Develop and install uniform signage, including interpretive signage that promotes a sense of place and educates the public at County beach parks regarding sensitive coastal and marine ecosystems and wildlife.

Discussion: The project supports the Shared Spaces sector and improves a key coastal park that serves residents and visitors. The second comfort station will be accessible and will supplement the existing comfort station to meet current levels of use. The open-air pavilion, improved parking layout, and additional shaded areas promote social interaction and support long-standing recreational practices. Uniform directional and informational signage will improve safety, circulation, and user understanding of park features.

These improvements are consistent with the County's objectives to maintain well-designed, accessible parks and to support community recreation in coastal areas.

Sector: IX. Public Safety & Hazards Resiliency

3. Global Warming and Climate Change Adaptation

Objective: To prepare for and adapt to the impacts of climate change on the natural and built environment.

A. Permitting and Code Changes

1. *Use the best available climate and hazard science to inform and guide decisions. Determine a range of locally relevant (context specific) sea level rise projections for all stages of planning, project design, and permitting reviews. At the time of this General Plan Update publication, the science suggests a planning target of three feet of sea level rise.*

B. Plans and Studies

1. *Support implementation of the Hawai'i Climate Adaptation Initiative (Act 83) and development of the Sea Level Rise and Vulnerability Adaptation Report for Hawai'i and the Statewide Climate Adaptation Plan.*

Discussion: The project supports the Public Safety and Hazards Resiliency sector. The second comfort station has been relocated inland and mauka from the original Master Plan location to reduce exposure to flooding and sea level rise. The new location in Flood Zone AEF allows the use of fill to meet required design elevations. The finished floor elevation will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE. No new structures will be built in the Conservation District or nearshore area, reducing potential impacts to coastal processes and marine resources. BMPs will be implemented during construction to protect Hanalei River and Hanalei Bay from sedimentation and runoff.

5.9 North Shore Development Plan

The North Shore Development Plan Ordinance is codified in Chapter 10, Article 2 of the Kaua'i County Code. The purpose of the North Shore Development Plan Ordinance is to:

(1) To implement the intent and purpose of the adopted General Plan and to amend certain portions of the General Plan which are found to be necessary in order to recognize more detailed information and more precise community goals and objectives.

(2) To establish development plans, Zoning Maps and design criteria to guide and regulate future development and protect certain physical and social characteristics which are found to be of particular public value.

(3) To establish exceptions, modifications or additions to the provisions of the Comprehensive Zoning Ordinance and the Subdivision Ordinance of the County of Kaua'i in order to more specifically provide for the regulation of land use, subdivision and development practices within the North Shore special planning area.

(4) For said purposes, the North Shore special planning areas includes the District of Hanalei as described in Section 4-1(4) of the Hawai'i Revised Statutes and portions of other districts located within natural watershed areas draining to the ocean between Moloa'a Stream and the Na Pali Coast, as established by the Planning Commission and designated on the Zoning Maps of the County of Kaua'i, pursuant to Section 8-9.6 of the Comprehensive Zoning Ordinance.

The following provides an analysis of the project's compliance with the development standards articulated in the North Shore Development Plan Ordinance.

Section 10-2.4(d) USE DISTRICTS – OPEN DISTRICT MODIFICATIONS EXCEPT KULEANAS

(1) No parcel within the State Land Use Commission's agricultural district and zoned open district by the County within the planning area shall be subdivided into more than ten (10) lots, none of which may be smaller than five (5) acres. Parcels so subdivided shall not be further resubdivided unless reclassified into the urban district by the State Land Use Commission.

(2) Commercial Uses Within the Open District (O). Existing commercial uses and structures within the open district (O) may be allowed to continue and if it is damaged or destroyed, such use or structures may be resumed if restoration or reconstruction is completed within one (1) year from the date of such damage or destruction and provided that the general appearance and design of the building in which the use and structure or activity is conducted is maintained, the use and structure are not changed, the existing floor area is not expanded, and no other accessory commercial buildings are constructed. If reconstruction, restoration, and/or re-establishment of the use and structure are not completed within one (1) year from the date of such damage or destruction, such use of the land and structure hereafter shall be in full conformity with the provisions of the Comprehensive Zoning Ordinance.

Discussion: The project implements the 2021 Master Plan for Black Pot Beach Park and does not involve the subdivision or re-subdivision of any parcel. The existing parcels that comprise the park remain intact, and no changes to parcel boundaries or land division are proposed. The project is consistent with the subdivision restrictions of the North Shore Development Plan Ordinance.

No commercial structures or activities are proposed as part of the project. The improvements consist solely of public park facilities and circulation upgrades. The project does not alter any commercial uses within the Open District and is consistent with the requirements of this section.

Section 10-2.4(e) USE DISTRICTS – SPECIAL REGULATIONS APPLICABLE TO ALL DISTRICTS

(1) Heights

Except as provided under Ordinance No. 416 (Flood Hazard Areas) Section 15.1.5(c)(4), height limits shall be as established in the Comprehensive Zoning Ordinance; provided, however, that no structure shall be higher than twenty-five (25) feet unless a greater height is authorized by the Planning Commission pursuant to a use permit after review (and recommendation) by the North Shore Improvement Advisory Committee.

Discussion: The proposed facilities, including the second comfort station and open-air pavilion, have been designed to comply with height standards for the Open District. These structures remain below the maximum allowable height (25 feet). The planned improvements also incorporate requirements for the Floodway Area, and coordination with the County Engineer will occur during final design to confirm compliance with applicable floodplain development standards. No height variances or Use Permits are anticipated.

(7) Recreational Uses

(A) A use permit shall be required for the development of any campsite, recreation vehicle park, day use picnic area, undeveloped campground, or private recreation area intended for the use of persons other than the owners of the lands upon which such facilities are located and their guests. A use permit for such facility shall not be issued in connection with a parcel located in an area designated as "urban" by the State Land Use Commission that is smaller than one (1) acre in size. Such uses, where permitted, shall be served by adequate sanitary and domestic water facilities as determined by the Department of Public Works, Water Department, and Health Department.

Discussion: The project site is within the County Open District and within State Urban and Agricultural Land Use Districts. The proposed improvements do not include the development of a campground, recreational vehicle park, undeveloped campground, or private recreation facility. The improvements involve upgrades to an existing public park and do not trigger the Use Permit requirement under this section. Adequate water and sanitary service will be provided through the existing park utility system, consistent with departmental requirements.

5.10 County of Kaua'i Special Management Area

Pursuant to HRS Chapter 205A, each county is responsible for designating enforcing policies within the SMA, which extends inland from the shoreline. The purpose of the SMA is to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai'i. Special controls on development within the SMA are necessary to avoid permanent loss of valuable resources and foreclosure of management options. Development within the SMA is subject to review under the provision of the objectives, policies, and guidelines articulated in the Special Management Area Rules and Regulation of the County of Kaua'i. The County of Kaua'i utilizes the objectives and policies of the CZMP codified in HRS Chapter 205A as its guidelines in the implementation of the SMA rules. Consistency and applicability of the project with the objectives and policies of the CZMP is discussed in detail in *Section 5.5.*

The following section analyzes the project's consistency with the guidelines for development in the SMA on the County of Kaua'i.

(1) All developments in the Special Management Area shall be subject to reasonable terms and conditions set by the Director or the Planning Commission to ensure that:

(A) Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;

(B) Adequate and properly located public recreation areas and wildlife preserves are reserved;

(C) Provisions are made for solid and liquid waste treatment, disposition, and management that will minimize adverse effects upon special management area resources; and

(D) Alterations to existing landforms and vegetation, except crops, and construction of structures shall cause minimum adverse effects to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, storm surge, landslides, erosion, siltation, or failure in the event of earthquake.

Discussion: The project supports the SMA rules and regulations of the County of Kaua'i. The project implements the 2021 Master Plan for Black Pot Beach Park, created through a community driven planning process to accommodate existing uses and balance the park for its wide range of users. The additional public facilities will supplement the existing comfort station and enhance recreational use for the local community and visitors.

The improvements have been planned with consideration for the park's location between the Hanalei River and Hanalei Bay. The second comfort station has been located further inland and mauka from the location identified in the 2021 Master Plan to reduce exposure to natural hazards. The facility has also been moved from the Coastal High Hazard Area (Flood Zone VE) to the Floodway Area (Zone AEF). The finished floor elevation will be set at 10 feet and flood design mitigation strategies including but not limited to floodway doors will be integrated into the design of the new comfort station to account

for the difference between the FFE and BFE. Parking and paved areas will utilize crushed gravel to reduce runoff.

BMPs will be implemented during the short-term construction period to reduce potential effects on the Hanalei River and Hanalei Bay. The project does not involve alteration of major landforms and is not anticipated to affect water resources, scenic resources, or recreational opportunities within the SMA.

(2) No development shall be approved unless the Director or the Planning Commission has first found that:

(A) The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, and welfare, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and the elimination of planning options;

(B) The development is consistent with the objectives and policies, as enumerated in HRS Chapter 205A and as referred to in Section 3.0 above, and the Special Management Area guidelines set forth in these Rules and Regulations; and

(C) The development is consistent with the County general plan and zoning ordinances. Such a finding of consistency does not preclude concurrent processing where a general plan or zoning amendment may also be required.

Discussion: The project is not anticipated to result in a substantial adverse environmental or ecological effect. The project implements the 2021 Master Plan, which was prepared with community input and identifies improvements to support existing uses and the wide range of park users. The improvements constructed will provide public benefits by supplementing the existing comfort station and improving the overall function of the beach park.

The project is consistent with the objectives and policies of HRS Chapter 205A. *Section 5.5* provides a detailed analysis of consistency with the CZMP. The project is also consistent with the County General Plan land use designation and with the Open District zoning designation under the CZO.

(3) The Director or the Planning Commission shall seek to minimize, where reasonable:

(A) Dredging, filling, or otherwise altering any bay, estuary, salt march, river mouth, slough, or lagoon.

(B) Any development that would reduce the size of any beach or other area usable for public recreation.

(C) Any development that would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the Special Management Area and the mean high tide line where there is no beach.

(D) Any development that would substantially interfere with or detract from the line of sight toward the sea from the State Highway nearest the coast, or from existing public views to and along the shoreline.

(E) Any development that would adversely affect water quality, existing areas of open water free of visible structure, existing and potential fisheries and fishing grounds, wildlife habitats, estuarine sanctuaries, potential or existing agricultural uses of land.

Discussion: The project implements the 2021 Master Plan and does not include dredging or filling of the Hanalei River, Hanalei Bay, or other coastal water bodies. The improvements are located inland of the sandy beach and riverbank and do not reduce public access to shoreline areas. The project provides additional park amenities and is anticipated to have beneficial effects for recreational users.

The improvements have been designed to maintain the open park setting and preserve views to and along the shoreline, including views of the Hanalei Pier. No new structures are proposed in the Conservation District.

The Master Plan was developed with attention to the coastal setting. The second comfort station was relocated further inland and mauka to reduce exposure to flooding and sea level rise. The relocation from Flood Zone VE to Flood Zone AEF allows the use of fill. The finished floor elevation will be set at 10 feet and floodway doors will be used to reduce potential impacts from flooding and to account for the difference between the FFE and BFE. Parking and paved areas will utilize crushed gravel to reduce runoff. BMPs will be implemented during construction to reduce potential effects on the Hanalei River and Hanalei Bay.

5.11 Kaua‘i Parks & Recreation Master Plan

The County of Kaua‘i Parks & Recreation Master Plan was published in 2009 to provide a long-range vision for the programming and development of parks and recreational facilities. The Master Plan was a community driven planning process that contains recommendations to guide the Department’s actions and decisions. The Master Plan is conceptual in nature and is intended to guide resources within the Department to guide the park and recreation facilities within the County. The following goals and objectives relevant to the project are identified below.

1. Parks and Recreation Facilities

Goal: Provide comprehensive, well-designed, and highly functional parks and recreational facilities which meet public needs for diverse recreational opportunities, make suitable use of Kaua‘i’s resources, and are compatible with surrounding uses.

Objectives:

- *1.1 Ensure that the parks and recreation system is safe and maintained in a state of good repair.*
- *1.2 Promote public health and enhance the community’s quality of life.*
- *1.3 Develop and manage existing facilities for multiple uses and maximum flexibility.*
- *1.4 Recognize the importance of Kaua‘i’s parks and recreation facilities in enhancing the visitor experience, and maintain a system that represents Kaua‘i as a desirable visitor destination.*
- *1.5 Ensure that recreation uses are compatible with their intended sites and with neighboring uses, not create hazardous conditions, or cause resources damage or depletion.*
- *1.7 Organize uses within a recreation site or facility to ensure a functional layout and to prevent hazards to different groups of users.*
- *1.9 Continue to improve accessibility at all parks and recreation facilities by incorporating current accessibility and universal design guidelines in all new facilities and amenities and updating existing facilities as appropriate.*

Discussion: The project supports the Kaua‘i Parks and Recreation Master Plan goals and objectives for parks and recreation facilities. The project implements the 2021 Master Plan for Black Pot Beach

Park, which was created through a community driven process to address existing uses for residents and visitors. The planned improvements will maintain the natural beach park setting by preserving large pockets of open space along the riverbank while providing much-needed public facilities.

The improvements include a second comfort station and an open-air pavilion. The second comfort station will meet ADA standards to promote accessibility. Planned improvements to the Wilikoki Place parking area will improve on-site circulation. These enhancements will accommodate existing uses and improve the recreational experience for the community and visitors.

2. Physical and Cultural Resources

Goal: Incorporate good design and best practices, promote a sense of place, and embrace the unique ecology and cultural values of Kaua'i.

Objectives:

- *2.1 Identify and manage natural, scenic, and historic/cultural resources which have value for recreation, determine appropriate recreational uses for them, and ensure their availability for public enjoyment.*
- *2.2 Secure public access to natural resources with recreation value.*
- *2.3 Support programs and proposals for environmental conservation and enhancement, historic and cultural interpretation, and controls which prevent damage to resources.*
- *2.5 Promote and manage patterns of use which maximize site potential while preventing resource harm.*
- *2.6 Ensure site development practices which respect the site and its surroundings, create safe and beautiful recreation settings which maintain or enhance existing resources.*
- *2.10 Incorporate environmentally sustainable design and practices in the development and maintenance of parks and recreation facilities.*

Discussion: The project supports the Kaua'i Parks and Recreation Master Plan goals for physical and cultural resources. A CIA was completed for this Draft EA to identify traditional cultural practices at Black Pot Beach Park. The additional facilities will supplement the existing comfort station and support longstanding recreational practices recognized by the community. The 2021 Master Plan was designed to accommodate these existing uses while maintaining the character of the park.

The improvements preserve the natural beach park setting by maintaining large open spaces along the riverbank. A buffer area around the reinterment site will be preserved, and appropriate signage will be installed for educational purposes. These measures support both cultural values and responsible recreational use.

4. Planning, Coordination, and Implementation

Goal: Create an ongoing process to guide the planning and implementation of parks and recreation facilities, monitor community recreation needs, and evaluate existing programs and facilities.

Objectives:

- *4.1 Utilize the Capital Improvement Program (CIP) as a strategic tool to expand and improve the parks and recreation facilities and to implement priority projects.*
- *4.3 Encourage and recognize citizen volunteer efforts to improve and maintain parks and recreation facilities.*

4.4 Monitor community values and the inventory of recreation resources, facilities, and programs in order to evaluate the relationship between recreation supply and demand.

Discussion: The project supports the Kaua‘i Parks and Recreation Master Plan objectives for planning, coordination, and implementation. The project advances the goals of the 2021 Master Plan for Black Pot Beach Park, which was developed with extensive community input. DPR recognizes the importance of Black Pot Beach Park as a valued community resource and worked with the community to create a plan that will sustain the park for future generations.

As part of this Draft EA, outreach was informally conducted with the Black Pot Beach Park Community Advisory Committee to support the long-term vision of a park that serves both residents and visitors. The planned improvements reflect current needs and support continued monitoring of recreational use and community values.

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Chapter 6

Findings Supporting the Anticipated Determination

Chapter 6

Findings Supporting the Anticipated Determination

6.1 Anticipated Determination

Based on a review of the significance criteria outlined in Chapter 343, HRS, and Chapter 11-200.1-13, HAR, the project has been determined to not result in significant adverse effects on the natural or human environment. A FONSI is anticipated to be issued.

6.2 Reasons Supporting the Anticipated Determination

The potential impacts of the project have been fully examined and discussed in this EA. As discussed throughout this EA, no significant environmental impacts expected to result from the project. This determination is based on the assessments as presented below for criterion (1) to (13).

1. Involve an irrevocable loss or destruction of any natural or cultural resources.

Archaeological and cultural resources within the project area have been documented through prior archaeological inventory survey work (*Section 3.7 and 3.8*). Iwi kūpuna identified during the 2016 AIS were respectfully reinterred in consultation with the SHPD and the KNIBC. The reinterment area will be preserved in place with an appropriate buffer, and continued coordination with SHPD and KNIBC will occur throughout project implementation. No ground disturbance is proposed within or adjacent to the protected area.

The proposed improvements (comfort station, pavilion, parking reconfiguration, signage, and landscaping) occur within previously disturbed park areas and do not require expansion into undisturbed natural resource areas. Native and Polynesian-introduced landscaping will be incorporated to support the coastal setting. No significant or irrevocable loss of natural or cultural resources is anticipated.

2. Curtail the range of beneficial uses of the environment.

The project will not curtail the range of beneficial uses of the environment. All improvements are consistent with the existing park use and land use designations for County park purposes. The 2021 Master Plan provides a framework for upgrades that accommodate diverse recreational uses while maintaining the area's cultural character and open space qualities. The planned improvements, including an additional comfort station, reconfigured parking, enhanced circulation, and improved shaded areas, will support continued and enhanced public recreational use of the park. No beneficial uses will be lost, reduced, or displaced by the project.

3. Conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

The project is consistent with the environmental policies and goals stated in Chapter 344, HRS. The improvements support the conservation and prudent use of natural resources by (1) maintaining open space, (2) locating new structures inland to reduce exposure to flooding and coastal hazards, (3) incorporating water-quality improvements such as porous paving and landscaping, and (4) continuing public access to coastal recreation areas.

No conflicts with HRS Chapter 344, applicable court decisions, or relevant executive orders have been identified.

4. Substantially affects the economic or social welfare of the community or State.

The project will have beneficial effects on the economic and social welfare of the community. Short-term construction activities may generate employment and local spending. Long-term benefits include improved restroom capacity, safer circulation, and enhanced shaded gathering spaces.

The improvements implement the community-supported 2021 Master Plan and contribute to a safe, functional, and culturally appropriate recreational setting for residents and visitors. No substantial adverse effects on economic or social welfare are anticipated.

5. Substantially affects public health.

The project is consistent with existing park uses and is not expected to adversely affect public health. Temporary construction-related effects, such as dust, noise, and stormwater runoff, will be minimized through the implementation of BMPs, including erosion control, dust suppression, and compliance with State and County regulations. In the long term, the project will enhance public health and safety by providing improved sanitation facilities, clearer circulation routes, and shaded areas. No substantial adverse effects on public health are anticipated.

6. Involves substantial secondary impacts, such as population changes or effects on public facilities.

The project will implement improvements identified in the 2021 Master Plan to support existing recreational uses at Black Pot Beach Park. The improvements are intended to better accommodate current levels of use, improve circulation, and not to expand capacity in a manner that would induce additional population growth or generate secondary impacts on public facilities. The planned improvements do not include any new amenities that would substantially increase park visitation beyond existing patterns. The project does not introduce new residential, commercial, or institutional uses and will not increase demand for public services such as schools, utilities, or emergency services. No substantial secondary impacts related to population or public facilities are anticipated.

7. Involves a substantial degradation of environmental quality.

The project is not expected to result in a substantial degradation of environmental quality. Construction-related effects (dust, noise, stormwater runoff, and soil disturbance) will be temporary and will be minimized through standard BMPs, including dust suppression, erosion control, stormwater BMPs, and compliance with all applicable State and County regulations.

Long-term impacts on air quality, water quality, coastal resources, wildlife, and noise levels are not anticipated. The planned improvements, including porous paving, retention basins, native landscaping, and strategic facility siting, are intended to maintain and enhance environmental quality. No substantial long-term degradation of the environment is anticipated.

8. Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.

The project is not expected to result in cumulative impacts when considered with past, present, and reasonably foreseeable actions in the Hanalei area. The improvements reflect the community-developed 2021 Master Plan, which is a stand-alone set of facility upgrades intended to better support ongoing park use while maintaining the natural park setting. The project does not commit the County to larger, phased improvements beyond those identified in the Master Plan. The improvements will provide much needed facilities without inducing additional development in the surrounding area. No considerable cumulative effects or commitments to future large-scale actions are anticipated.

9. Substantially affects a rare, threatened or endangered species, or its habitat.

A biological survey was conducted for the project area (*Section 3.6*). The federally listed Loulu lelo (*Pritchardia hillebrandii*) and Loulu (*Pritchardia remota*) identified within the park boundaries will be preserved in place and protected during construction. As noted by the USFWS, several threatened and endangered species, including native waterbirds, seabirds, and aquatic species, may traverse, feed, or nest within or near the park. Construction BMPs, including noise and lighting controls, erosion and sedimentation management, and avoidance of nesting areas during certain times of season will be managed as appropriate, thereby minimizing potential short-term impacts. With proper protective measures, no substantial adverse effects on rare, threatened, endangered species or their habitat are anticipated.

10. Detrimentally affects air or water quality or ambient noise levels.

Construction activities may result in temporary and localized effects on air quality (dust), water quality (runoff), and ambient noise levels due to equipment use. BMPs identified in *Chapter 3*, including dust control, stormwater BMPs, and adherence to allowable construction hours—will minimize these temporary impacts. The improvements are not expected to detrimentally affect long-term air quality, water quality, or noise levels. The project incorporates water-quality improvements (porous paving, drainage upgrades, retention basins) that are expected to enhance stormwater management relative to existing conditions. No long-term detrimental effects are anticipated.

11. Affects or is likely to suffer damage by being located in an environmentally sensitive area such as flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

Black Pot Beach Park is a focal point on Kaua‘i’s North Shore with its pristine location nestled between Hanalei River and Hanalei Bay. However, its location makes the park subject to exposure by several natural hazards, including flooding and sea level rise. As described in the project plans, the planned facilities, particularly the second comfort station, have been deliberately sited mauka and inland to reduce exposure to natural hazards. The second comfort station has been strategically location further inland and mauka from its original identified location in the 2021 Master Plan to reduce its exposure to flooding and sea level rise. Additionally, the second comfort station has been relocated from the Coastal High Hazard Area (Flood Zone VE) to the Floodway Area (Zone AEF) to allow fill material to be used. The FFE of the second comfort station will be set at 10 feet and flood design mitigation strategies

including but not limited to floodway doors will be integrated into the design of the new comfort station to account for the difference between the FFE and BFE. With these design measures, the project is not expected to generate adverse effects in environmentally sensitive areas and is expected to be resilient to foreseeable hazards.

12. Substantially affects scenic vistas and view-planes identified in county or state plans or studies.

The project will not substantially affect scenic resources or viewplanes. The 2021 Master Plan was designed to preserve the natural open space character of the park and maintain panoramic views from the nearshore areas of Hanalei Bay, Hanalei Pier, and the surrounding mountain ranges. The second comfort station and open-air pavilion have been designed at an appropriate scale, consistent with beach park structures, and their placement avoids intrusion within prominent view corridors. Landscaping improvements are intended to complement the existing coastal setting without blocking significant views. No substantial adverse effects on scenic vistas or viewplanes are anticipated.

13. Require substantial energy consumption.

Construction of the planned improvements will require energy use typical of similar park facility projects. Energy consumption during construction will be temporary and not substantial. Long-term operational energy demand is not anticipated to be substantial. Park operations will remain similar to current conditions, and the improvements do not introduce energy-intensive facilities. No significant effect related to energy consumption is anticipated.

6.3 Summary

Based on the analysis presented in this EA and the application of the significance criteria established in HAR §11-200.1-13, the proposed Black Pot Beach Park Master Plan Improvements are not anticipated to result in significant adverse impacts on the natural or human environment. The project has been evaluated for potential direct, indirect, and cumulative impacts, and no significant environmental effects have been identified.

The project implements the community-developed 2021 Black Pot Beach Park Master Plan, which establishes a framework to guide facility improvements in a manner that accommodates existing recreational uses while maintaining the park's open space character, cultural significance, and coastal setting. The proposed improvements, which include a second comfort station, an open-air pavilion, circulation and parking enhancements, native landscaping, and continued preservation of the archaeological reinterment area, have been carefully sited and designed to respond to natural constraints, reduce user conflicts, and improve public safety. The project uses BMPs to minimize temporary construction-related impacts and incorporates long-term design measures to address coastal hazards, stormwater management, and resource conservation.

The project is consistent with applicable State and County plans, including the Hawai‘i State Land Use District Boundaries, the Hawai‘i 2050 Sustainability Plan, the Hawai‘i Coastal Zone Management Program, the County of Kaua‘i Comprehensive Zoning Ordinance, the Kaua‘i General Plan, Special Management Area Guidelines, and the North Shore Development Plan. The improvements are compatible with the existing land use designations and will maintain and enhance public access to Black Pot Beach Park.

No significant cumulative impacts are anticipated when considered with past, present, and reasonably foreseeable projects in the Hanalei region. The project does not induce population growth, commits

the County to larger future actions, or modify the park in a manner that would degrade its environmental or cultural qualities. The improvements will provide necessary facilities, improve park operations, and enhance the user experience for residents and visitors.

Because the project does not meet any of the significance criteria set forth in HAR §11-200.1-13, the preparation of an Environmental Impact Statement (EIS) is not warranted. A FONSI is anticipated.

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Chapter 7

List of Agencies, Organizations and Individuals Receiving Copies of the EA

Chapter 7

List of Agencies, Organizations and Individuals Receiving Copies of the EA

To initiate the environmental review process, and in accordance with HAR §11-200.1-18(b), DPR conducted early consultation at the earliest practicable time. The County sought the advice and input of the County Planning Department, as the agency responsible for implementing the County's General Plan, and consulted with various Federal, State, and County agencies having jurisdiction or expertise, as well as citizen groups and individuals reasonably believed to be affected by the project. Those who provided early consultation comments, provided written comments, and are receiving notification of the Draft EA are identified in *Table 7-1.*

Consistent with HAR §11-200.1-18(c), all written comments received during the early consultation period were reviewed and considered in the preparation of this EA. Copies of the consultation correspondence are provided in *Appendix A*. A summary of the comments received, along with a list of agencies and other parties provided an opportunity to review this Draft EA, is included in *Chapter 7*.

Table 7-1: Agencies, Organizations and Individuals Receiving Copies of the EA

Respondents and Distribution	Receiving Early Consultation Letter	Comments Received	Receiving Draft EA Notification
Federal Agencies			
U.S. Fish and Wildlife Service	X	X	X
State of Hawai'i Agencies			
Department of Land and Natural Resources (DLNR), Land Division	X	X	X
DLNR Land Division – Kaua'i District Office	X	X	X
DLNR Division of Forestry and Wildlife	X		X
DLNR Commission on Water Resource Management	X	X	X
DLNR Office of Conservation and Coastal Lands	X	X	X
DLNR Division of Aquatic Resources	X	X	X
DLNR Division of Boating and Ocean Recreation	X	X	X
DLNR State Historic Preservation Division	X		
Kaua'i Ni'ihau Island Burial Council			X
Department of Health (DOH), Clean Air Branch	X	X	X

Table 7-1: Agencies, Organizations and Individuals Receiving Copies of the EA			
Respondents and Distribution	**Receiving Early Consultation Letter**	**Comments Received**	**Receiving Draft EA Notification**
DOH Safe Drinking Water Branch	X		X
DOH Solid and Hazardous Waste Branch	X	X	X
DOH Wastewater Branch	X		X
DOH Wastewater Branch, Kaua'i Office	X		X
Department of Transportation (DOT), Highways Division	X		X
DOT Highways Division, Kaua'i District	X		X
County of Kaua'i Agencies			
Fire Department	X		X
Planning Department	X		X
Police Department	X		X
Department of Public Works	X		X
Transportation Agency	X		X
Kaua'i Island Utility Cooperative	X		X
Department of Water	X	X	X
Elected Officials			
Senator Ron Kouchi – State Senate District 8	X		X
Representative Nadine Nakamura – State House District 15	X		X
Mayor Derek Kawakami – Office of the Mayor, Kaua'i	X		X
County Councilmembers	X		X
Individuals			
Neighboring Property Owners	X		X
Organizations			
Community Advisory Committee	X	X	X
Hanalei Canoe Club	X		X
Nāmolokama Canoe Club	X	X	X
Pat's Taqueria	X		X

7.1 Draft EA Early Consultation

Consistent with HAR §11-200.1-18(c), all written comments received during the early consultation period were reviewed and considered in the preparation of this EA. Copies of the written comments are provided in *Appendix A*. A summary of the comments and responses to comments are provided in *Table 7-2*.

Table 7-2: Draft EA Early Consultation Summary of Comments and Responses		
Comments	**Commenter and Date of Comment Letter**	**Responses**
Description of the Proposed Action		
Canoe Hale: As a historic building built in 1974 this hale is a unique building which adds character to the park, honors its history as a public space and provides a necessary space for canoe storage, permitted pavilion use and other gatherings. The Park seems to be getting whitewashed of its history. We believe keeping the building adds many benefits. Demolishing the building for open space away from the river is pointless or even worse to turn it into parking.	Nāmolokama O Hanalei Canoe Club; November 20, 2024	The former Hanalei Canoe Club meeting facility was documented as part of the AIS (*Section 3.7).* The Applicant will consult with SHPD to ensure the former structure is properly documented and inventoried prior to demolition, pursuant to HRS §6E-8.
Bathrooms The "Existing comfort station 2020" is a stain on the park. It's been named the Halawa Prison Complex by locals. The County admits that this portable building will not be moved in case of flooding which was the original design. This should be revisited	Nāmolokama O Hanalei Canoe Club; November 20, 2024	DPR is planning to implement the 2021 Master Plan at Black Pot Beach Park which includes a second comfort station. The second comfort station will supplement the existing comfort station. Any future changes to the existing comfort station would be outside the scope of this Draft EA and would undergo separate planning and community consultation if pursued. Should there be future plans to improve the existing comfort station, DPR will inform the CAC.
Buffer around our Hale. Map shows a green buffer around our Lot. This is highly desirable as man park users are accessing our lot for showers, trash and beach access.	Nāmolokama O Hanalei Canoe Club; November 20, 2024	As part of the park improvements, appropriate signage will be installed to enhance circulation and safety and to minimize conflicts amongst various park users. DPR will continue to work with the community to develop and locate signage that clearly defines park entry points, provides circulation guidance, and promotes appropriate park behavior.
Existing County Storage "Install Security Fencing". If this area is to be used for Canoe storage the area should not be fenced off from the river. Access to this area of Wilikoki street should be able to accommodate trailers.	Nāmolokama O Hanalei Canoe Club; November 20, 2024	The fencing around the County Storage shed will line the perimeters of the storage shed to allow for boat trailer parking. *Figure 2-12* has been revised to maintain access for canoe trailers while providing security for the County storage area.
Biological Resources		
The Pacific Island Fish and Wildlife Office (PIFWO) is transitioning to the use of the Information for Planning and Consultation (IPaC) online portal, https://ipac.ecosphere.fws.gov/, for federal action agencies and non-federal agencies or individuals to obtain official species lists, including threatened and endangered species and designated critical habitat in your project area. Using IPaC expedites the process for species list distribution and takes minimal time. Therefore, the IPaC list would fulfill your request for a species list. Please find	USFWS; November 21, 2024	Thank you for providing instructions to obtain official species list to identify threatened and endangered species and critical habitats in the project area. The official species list is attached in *Appendix D.* In support of this EA and the implementation of the 2021 Master Plan, a biological survey of the project area was completed. Results from the biological survey are summarized in *Section 3.6.* The

Table 7-2: Draft EA Early Consultation Summary of Comments and Responses		
Comments	**Commenter and Date of Comment Letter**	**Responses**
step by step instructions attached to use IPaC for future projects, and feel free to share with additional project partners.		biological survey identified the Endangered Loulu lelo and Loulu within the landscape of the park. As part of the park improvements, the Loulu lelo and Loulu will be preserved in place. The project is not anticipated to affect threatened or endangered species that may be found within or traversing the project site. Details of species that may occur in the project area and measures to minimize potential impacts should these species be found within the beach park are located in *Section 3.6.* Future updates to species lists during permitting or final design will continue to rely on the IPaC system.
Thank you for the opportunity to comment. The river and estuary is an important nursery area to many juvenile fish as well as providing habitat for turtles and other protected species. Please include potential impacts to aquatic species when creating this EA. Additionally, please include the following Best Management Practices (BMPs): 1) Conduct a daily inspection of equipment for conditions that could cause spills or leaks; clean equipment prior to operation near the water; properly site storage refueling, and servicing sites; and implement spill response procedures and stormy weather preparation plans; 2) Any activity related debris that may pose as an entanglement hazard to marine protected species must be removed from the project site if not actively being used and/or at conclusion of the day; 3) No contamination (trash or debris disposal, alien species introductions, etc.) of riverine, estuarine, or marine (reef flats, lagoons, open oceans, etc.) environments adjacent to the project site shall result from project related activities; 4) No contamination of the marine environment shall result from the permitted activities. Particular care must be taken to ensure that no petroleum products, trash, or other debris enter river, near-shore, and ocean waters; 5) The work shall be conducted so as to prevent the discharge or accidental spillage of pollutants, solid waste debris, and other objectionable wastes in surface waters;	DLNR, Division of Aquatic Resources (DAR); January 2, 2025	Thank you for providing guidance to protect threatened and endangered aquatic species that may be found within waterways adjacent to the beach park. As part of this EA, a biological survey was conducted and is summarized in *Section 3.6.* Additionally, the USFWS IPaC online tool was utilized to identify Threatened and Endangered species that may traverse, overfly, or nest at the beach park. BMPs will be implemented throughout the short-term construction period to minimize potential threats to aquatic species that may be found in near shore areas. BMPs include, but are not limited to, phasing of construction activities, inspection of equipment to ensure equipment is operating properly, proper storage of equipment away from water bodies, replacing ground cover of disturbed areas, providing adequate water sources at the site, and the use of temporary silt fencing and screens. Construction personnel will follow DLNR DAR avoidance protocols, including daily visual surveys and a 50-yard buffer for any protected species observed within the work vicinity. Additionally, recognizing that the Threatened Green Sea Turtle may nest along the shoreline at the beach park, contractors will be advised to prevent debris, trash, and runoff from entering nearby waterways that could affect nesting grounds for the Threatened Green Sea Turtle. A daily visual inspection will be conducted prior to the start of construction. If the species is found nesting along the shoreline, construction activity within a 50-

Table 7-2: Draft EA Early Consultation Summary of Comments and Responses		
Comments	**Commenter and Date of Comment Letter**	**Responses**
6) Visual surveys for ESA-listed marine species shall be made prior to the start of work each day, and prior to resumption of work following any break of more than ½ hour to ensure that no protected species are in the are (typically within 50 yards of the proposed work). 7) In the unlikely event of a protected species approaching within 50 yards of the construction area, please halt all work and call DAR to consult on how to proceed.		yard radius of the species will cease. *Section 3.6* discloses details of measures to protect threatened and endangered aquatic species.
Groundwater and Surface Water		
We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://planning.hawaii.gov/czm/initiatives/low-impact-development/	DLNR, CWRM; December 12, 2024	Thank you for providing guidance to minimize stormwater runoff. If applicable, the contractor will obtain and comply with any DOH stormwater permits required for construction. BMPs will be implemented during the short-term construction of the project to minimize stormwater water runoff. Additionally, contractors will adhere to applicable provisions of the Kaua'i County Code Sediment and Erosion Control Ordinance No. 808 (Chapter 22, Article 7), DOH Water Quality Standards (HAR §11-54), and Water Pollution Control Requirements (HAR §11-55). BMPs include, but are not limited to, phasing of construction activities, inspection of equipment to ensure equipment is operating properly, proper storage of equipment away from water bodies, replacing ground cover of disturbed areas, providing adequate water sources at the site, and the use of temporary silt fencing and screens As part of the planned improvements, the parking area running along Wilikoki Place will be paved with crushed gravel to minimize runoff. Open greenspace space at the park will be maintained to act as a natural drainageway and reduce stormwater runoff. Details of measures to minimize stormwater runoff are discussed in *Section 3.4.*
There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.	DLNR, CWRM; December 12, 2024	DPR will coordinate with DOH throughout final design and construction to address water quality considerations. As discussed above, BMPs will be implemented to minimize stormwater runoff and protect surface water quality. In the long-term, green open space will be maintained to act as a natural drainage buffer and prevent large

Table 7-2: Draft EA Early Consultation Summary of Comments and Responses		
Comments	**Commenter and Date of Comment Letter**	**Responses**
		quantities of stormwater runoff from entering the Hanalei River and Hanalei Bay. The Applicant will continue to consult with DOH to minimize potential impacts to nearshore water quality.
Traffic & Access		
Access to Namolokama Canoe Club is blocked by tour companies parking in front of our driveway. At high tide there is no place for these companies to stage their operations, so they wait and access our property, use our hose for rinse water and leave trash on our site.	Nāmolokama O Hanalei Canoe Club; November 20, 2024	Thank you for bringing this issue to DPR's attention. As discussed, appropriate signage will be installed to enhance circulation and safety and to minimize conflicts amongst various park users. DPR will continue to work with the community to develop and locate signage that clearly defines park entry points, provides circulation guidance, and promotes appropriate park behavior within the limits of County jurisdiction. DPR will inform commercial operators of the park boundaries and Nāmolokama Canoe Club property near the park.
The Canoe Club cannot access our property with canoe trailers because the County installed fencing is too narrow. This needs to be addressed.	Nāmolokama O Hanalei Canoe Club; November 20, 2024	Thank you for bringing this issue to DPR's attention. The project calls for the implementation of the 2021 Master Plan for Black Pot Beach Park. DPR will be in coordination to address the location of the fencing. DPR will review the fencing layout during design to maintain adequate maneuvering space for canoe trailers.
Air Quality		
You must reasonably control the generation of all airborne, visible fugitive dust. Note that construction activities that occur near existing residences, businesses, public areas and major thoroughfares exacerbate potential dust concerns. It is recommended that a dust control management plan be developed which identifies and mitigates all activities that may generate airborne, visible fugitive dust. The plan, which does *not* require Department of Health approval, should help you recognize and minimize potential airborne, visible fugitive dust problems. Construction activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. In addition, for cases involving mixed land use, it is strongly recommended that buffer zones be established, wherever possible, in order to alleviate potential dust concerns.	DOH, Clean Air Branch, December 11, 2024	Thank you for providing guidance to control fugitive dust. *Section 3.12* carefully analyzes potential impacts to air quality and identifies mitigation measures to minimize potential effects to air quality. As part of the construction of the project, a dust control management plan will be prepared prior to construction to identify and mitigate dust-generating activities. BMPs will be implemented to minimize the generation of dust. BMPs include, but are not limited to, phasing of construction activities, inspection of equipment to ensure equipment is operating properly, proper storage of equipment away from water bodies, replacing ground cover of disturbed areas, providing adequate water sources at the

Table 7-2: Draft EA Early Consultation Summary of Comments and Responses		
Comments	**Commenter and Date of Comment Letter**	**Responses**
You must provide reasonable measures to control airborne, visible fugitive dust from the road areas and during the various phases of construction. These measures include, but are not limited to the following: • Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact; • Providing an adequate water source at the site prior to the start-up of construction activities; • Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase; • Minimizing airborne, visible fugitive dust from shoulders and access roads; • Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and • Controlling airborne, visible fugitive dust from debris being hauled away from the project site.		site, and the use of temporary silt fencing and screens. A dust control management plan may be implemented, should it be required. Construction will comply with provisions outlined in HAR §11-60.1-33.
Flooding		
During flooding the new improved Weke road acts as a dam sending water through our lot which is the new low spot. This needs to be resolved.	Nāmolokama O Hanalei Canoe Club; November 20, 2024	DPR recognizes the ongoing issues of ponding near Weke Road and will work with the Nāmolokama O Hanalei Canoe Club to mitigate ponding. While ponding near Weke Road is outside the scope of this Draft EA, DPR will continue to coordinate with the Canoe Club and relevant County agencies regarding drainage concerns in the area. Potential impacts to existing drainage patterns within the park are discussed in *Section 3.4*.
Infrastructure and Utilities		
We recommend the use of alternative water sources, wherever practicable.	DLNR, CWRM; December 12, 2024	As discussed in *Section 3.10*, the second comfort station will receive water from the existing internal park water system beneath Wilikoki Place. A new water submeter will be installed near Parcel 034 to monitor water usage at the second comfort station. The project is not anticipated to increase water consumption that may affect service in the greater Hanalei area.

Table 7-2: Draft EA Early Consultation Summary of Comments and Responses		
Comments	**Commenter and Date of Comment Letter**	**Responses**
Water service will be limited to the existing water meters serving this parcel. Any actual subdivision or development of this area will be dependent on the adequacy of the source, storage and transmission facilities existing at the time. At the present time, the existing storage and transmission facilities are adequate. Prior to the Department of Water (DOW) recommending building permit or water service approval, the applicant will be required to: 1) Submit a formal request for water service. The applicant shall describe the proposed water meter use. The applicant shall submit detailed water demand calculations, along with the proposed water meter size, to the DOW for review and approval. DOW condition for approval may change based on the approved water demands and use. 2) Be made aware that domestic and fire flow water demands as recommended by the DOW's Water System Standards (WSS) may be inadequate for the proposed development. WSS Table 100-19A identifies fire flow requirements for commercial use as 2000 gpm. The applicant is required to submit fire flow test data and calculations prepared and signed by an Engineer. The DOW's comments may change depending on the additional information provided. 3) Prepare and receive DOW's approval of construction drawings for the necessary water system facilities and construct said facilities. These facilities shall include but not be limited to: a. a water main extension / upgrade, if applicable. b. The domestic service connection (depending on Item 1) c. The fire service connection, if applicable. d. The interior plumbing plans with the appropriate backflow prevention device for proposed and existing water meter(s). 4) Pay the applicable charges in effect at the time of payment to the DOW. At the present time, these charges include the Facilities Reserve Charge (FRC) which is based on the approved water meter size. 5) Receive a "Certification of Completion" notice for the construction of necessary water system facilities from the DOW.	County of Kaua'i, DOW; January 13, 2025	Thank you for providing information on water supply to support the project. A detailed discussion on water availability is located in *Section 3.10*. The second comfort station will receive water from the existing internal park water system beneath Wilikoki Place. A new water submeter will be installed near Parcel 034 to monitor water usage at the second comfort station. The project is not anticipated to increase water consumption that may affect service in the greater Hanalei area. As the design of the improvements progresses, a formal request for water service which will include domestic and fire water flow water demands will be submitted to the County Department of Water. These requirements will be addressed during the building permit and engineering review process.

Table 7-2: Draft EA Early Consultation Summary of Comments and Responses		
Comments	**Commenter and Date of Comment Letter**	**Responses**
Waste Disposal		
Generators of solid waste are required to ensure that their wastes are properly delivered to permitted solid waste management facilities. Managers of construction and demolition projects should require their waste contracts to submit disposal receipts and invoices to ensure proper disposal of wastes. Chapter 342G, HRS, encourages the reduction of waste generation, reuse of discarded materials, and the recycling of solid waste. Businesses, property managers and developers, and government entities are highly encouraged to develop solid waste management plans to ensure proper handling of wastes and divert recyclables from being landfilled.	DOH, Solid and Hazardous Waste Branch, December 27, 2024	Waste generated during construction phase of the project will be properly transported to the Hanalei Refuse Transfer Station for proper handling and disposal. Contractors will comply with applicable DOH requirements for solid waste handling and disposal. As part of the planned improvements, recycling bins will be implemented to encourage recycling at the park. The County will continue to provide waste disposal services to treat and discard waste collected at the park. *Section 3.14.6* provides details of waste disposal services at Black Pot Beach Park.
Conservation District		
It appears portions of the subject parcels lie within the Resource Subzone of the State Land Use Conservation District. The OCCL regulates land uses in the State Land Use Conservation District through the issuance of Conservation District Use Permits (CDUPs) and Site Plan Approvals (SPAs) to help conserve, protect, and preserve important natural and cultural resources. It is unclear which improvements are proposed in the Conservation District. The proposed work and identified land use will determine the type of permit required. Please provide more details of the proposed work in the Conservation District. If you are unclear if the proposed work is in the Conservation District, please contact the Land Use Commission.	DLNR, OCCL; December 10, 2024	Because the proposed improvements are located outside the Conservation District boundary, no Conservation District Use Permit is anticipated. The second comfort station and open-air pavilion have been strategically located inland and mauka to reduce vulnerability from sea level rise and flooding. The two new structures will be located outside the State Conservation District. Further no earthwork activity or additional improvements will be completed within the area designated as Conservation.
Land Ownership		
The Division of Boating and Ocean Recreation would prefer to set aside the Hanalei Pier (TMK: (4) 5-5-001-008) to the County of Kauai through Executive Order. This would allow the county to develop a comprehensive master plan for the park and to properly regulate commercial activity within the park.	DLNR, DBOR; November 21, 2024	The County will continue to work with the Division of Boating and Ocean Recreation (DOBOR) on the future ownership of TMK (4) 5-5-001:008.

Chapter 8

List of References

Chapter 8

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University of Hawai‘i at Mānoa Geography Department. “Rainfall Atlas of Hawai‘i.” Accessed online: http://rainfall.geography.hawaii.edu/interactivemap.html

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Appendices

Appendix A

Early Consultation Letters

Kira Ramos

From: Dang, Charmian I <charmian_dang@fws.gov>
Sent: Thursday, November 21, 2024 12:01 PM
To: 224047-01 COK Black Pot Improvements
Subject: DEA for Black Pot Master Plan Improvement Project on Kauai
Attachments: IPaC Info Letter_Species List Instructions_PIFWO_20Apr2022_Final.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Dear Mr. McKeague,

Our office received your letter requesting the U.S. Fish and Wildlife Service's input on the proposed DEA for the Black Pot Master Plan Improvement Project on Kauai. Below are instructions for the IPAC online portal to obtain a list of species that may be affected in the project location and conservation measures which should be included in the EA.

The Pacific Island Fish and Wildlife Office (PIFWO) is transitioning to the use of the Information for Planning and Consultation (IPaC) online portal, https://ipac.ecosphere.fws.gov/, for federal action agencies and non-federal agencies or individuals to obtain official species lists, including threatened and endangered species and designated critical habitat in your project area. Using IPaC expedites the process for species list distribution and takes minimal time. Therefore, the IPaC list would fulfill your request for a species list. Please find step by step instructions attached to use IPaC for future projects, and feel free to share with additional project partners.

For recommended avoidance and minimization measures, you can visit the following webpage https://www.fws.gov/office/pacific-islands-fish-and-wildlife/library

Aloha,
Charmian Dang

~~~~~~

Charmian Dang
U. S. Fish and Wildlife Biologist
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850
808-792-9400
~~~~~~

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai‘i 96850

Subject: IPaC generated official species list for the Pacific Islands Fish and Wildlife Office

Dear Action Agency or Applicant:

The Pacific Islands Fish and Wildlife Office (PIFWO) is transitioning to the Information for Planning and Consultation (IPaC) online portal, https://ipac.ecosphere.fws.gov/ for federal action agencies and non-federal agencies or individuals to obtain official species lists, including threatened and endangered species, designated critical habitat, and avoidance and minimization measures to consider in your general project design. IPaC has been used by continental USFWS offices to provide official species lists and avoidance and minimization guidance since 2017. Using IPaC expedites the process for species list distribution. Obtaining a species list in IPaC is relatively straightforward and takes minimal time to complete. Step by step instructions are included below.

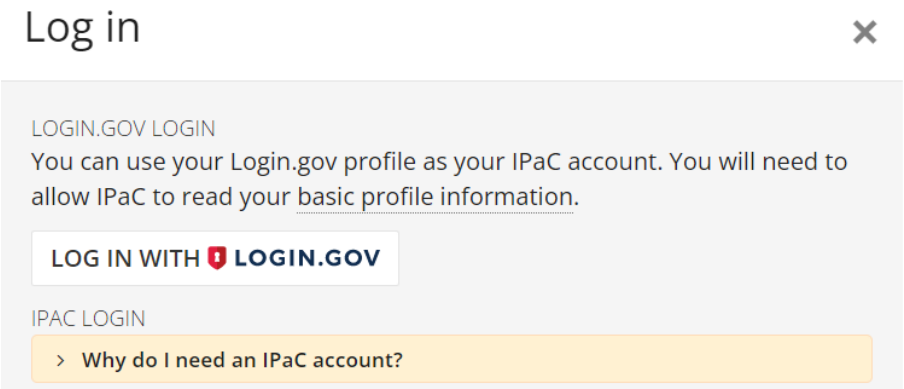
Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of your species list should be verified after 90 days. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change the species list. Verification can be completed by visiting the IPaC website at regular intervals during project planning and implementation. An updated list may be requested through the IPaC system by completing the same process used to obtain the initial species list.

We hope this process provides efficiencies to our partners in obtaining a species list. For federal action agencies, it also opens additional IPaC functionality that the PIFWO office is still working on, such as the use of Determination Keys for informal section 7 programmatic consultations. We will let our agency partners know when that functionality becomes available.

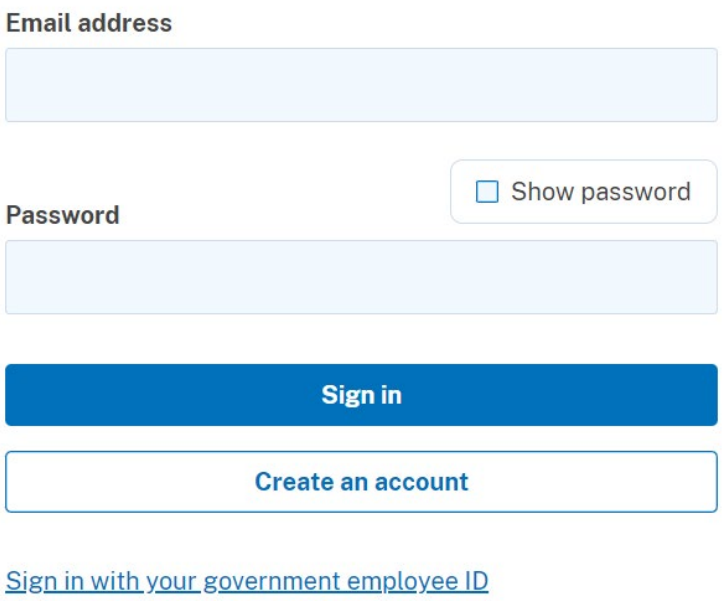
If you have questions about a species list obtained through the IPaC system or need assistance in completing an IPaC species list request, please contact the Service at 808-792-9400 or via email at pifwo_admin@fws.gov. We appreciate your efforts to conserve listed species across the Pacific Islands.

Instructions for Action Agencies and partners to obtain an official species list in IPaC

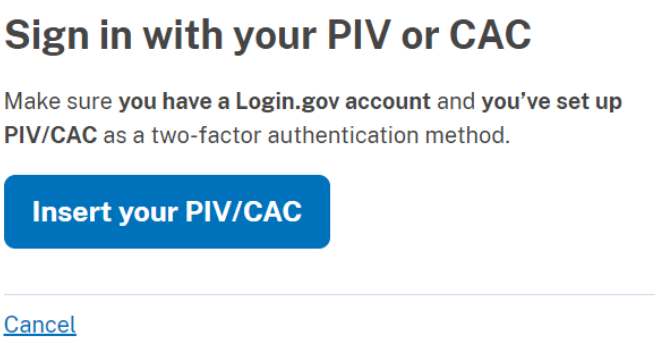
- Navigate to https://ipac.ecosphere.fws.gov/
- You can get an unofficial species list without logging in. However, if you want an official species list you will need to log in first using your Login.gov account. If you don't have an IPaC account, they are easy to create.



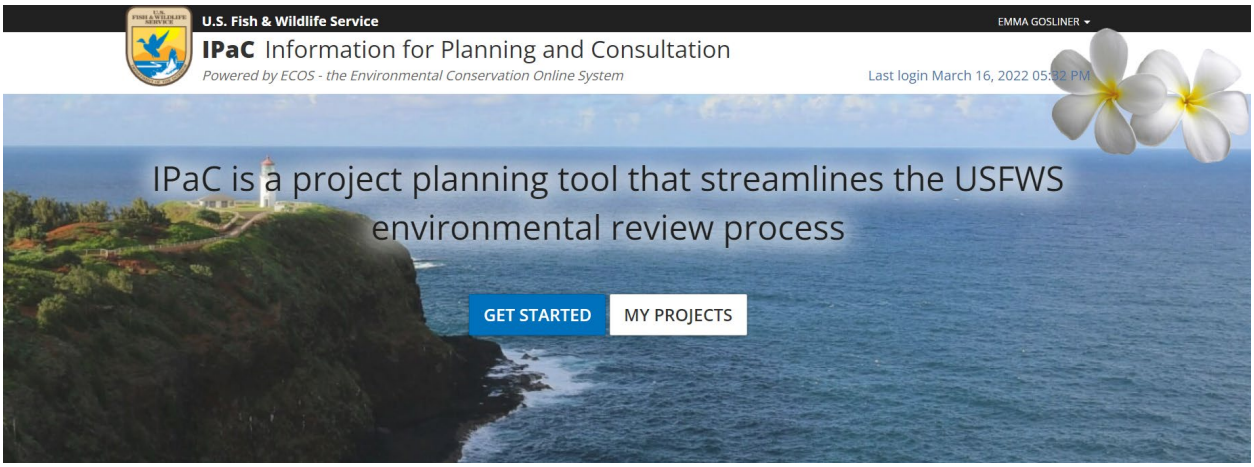
Select Log in with Login.gov and sign in using your email and password.



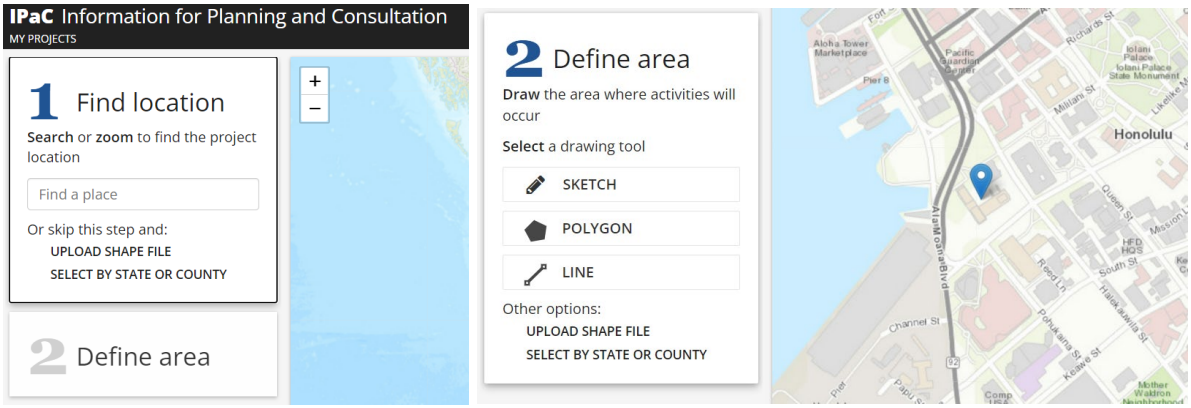
If you have a PIV or CAC card, you can sign in using that method as well.

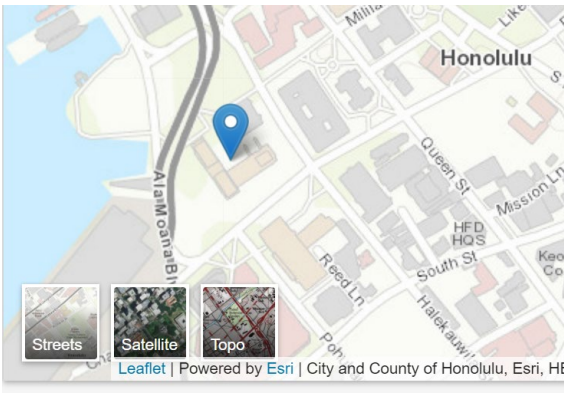


- Once you log in, select "Get Started".

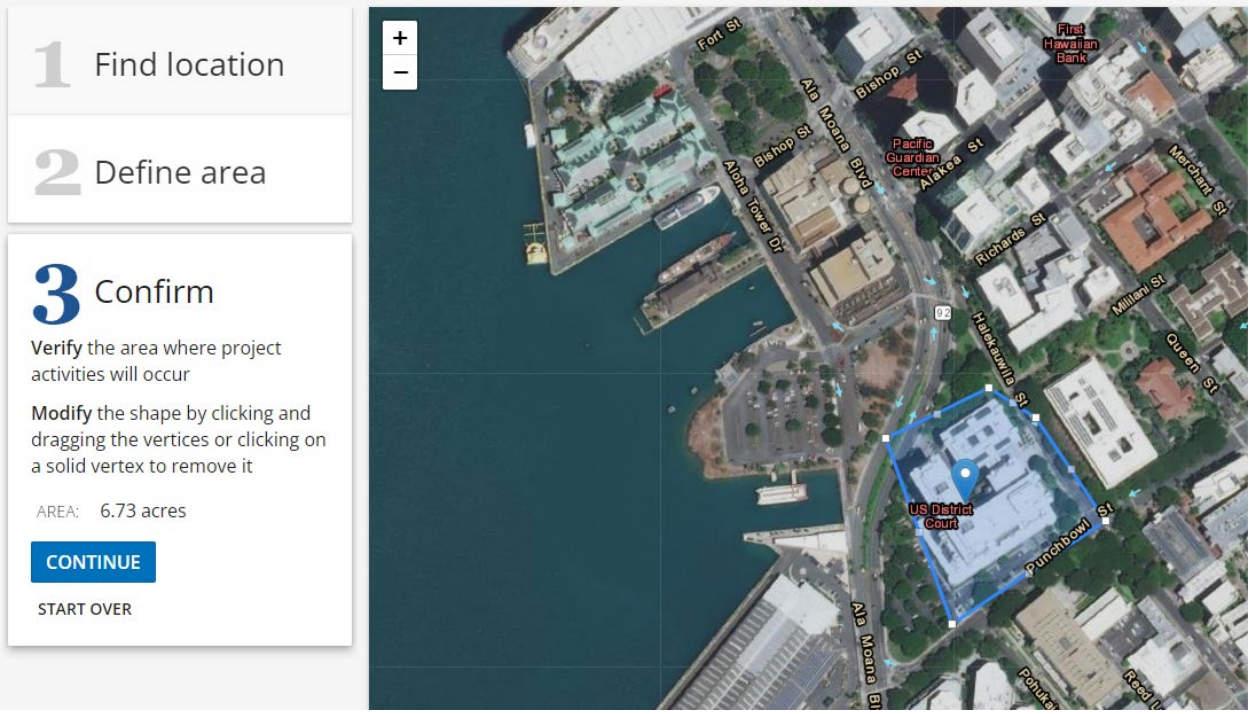


- Define the action area: Identify the location of the proposed action by uploading an existing shapefile or by entering an address or coordinates of the action area. Once identified on the map, you can manually draw the action area using the drawing tools.



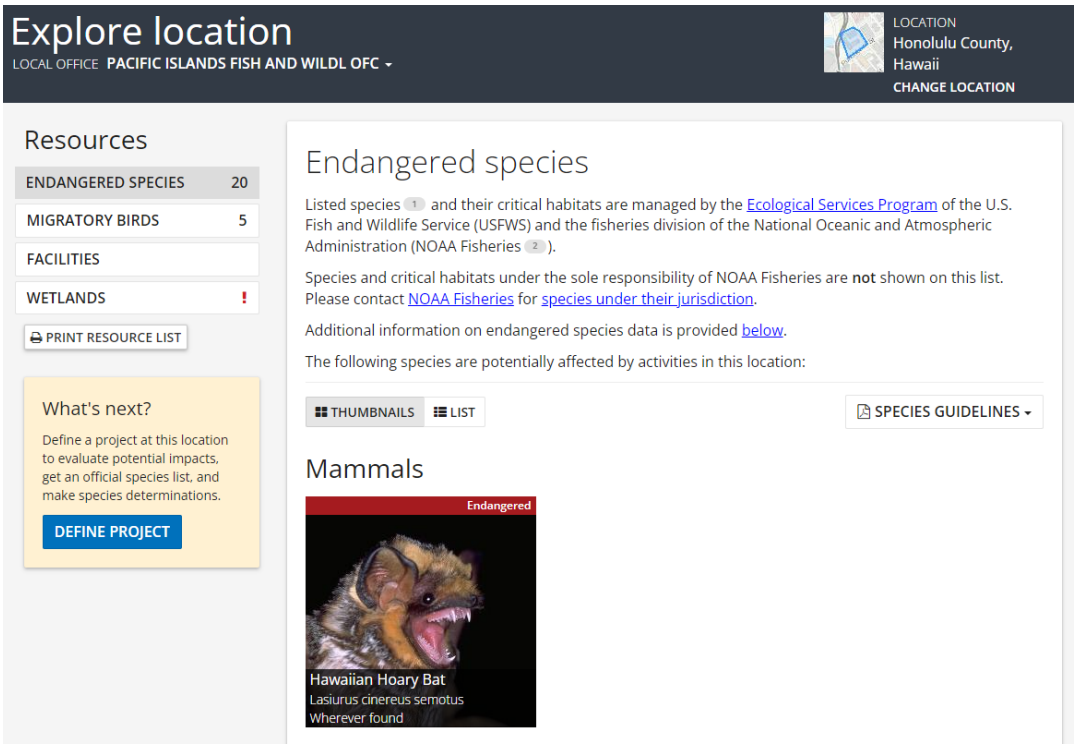


To help identify your action area you can choose between multiple base maps available.

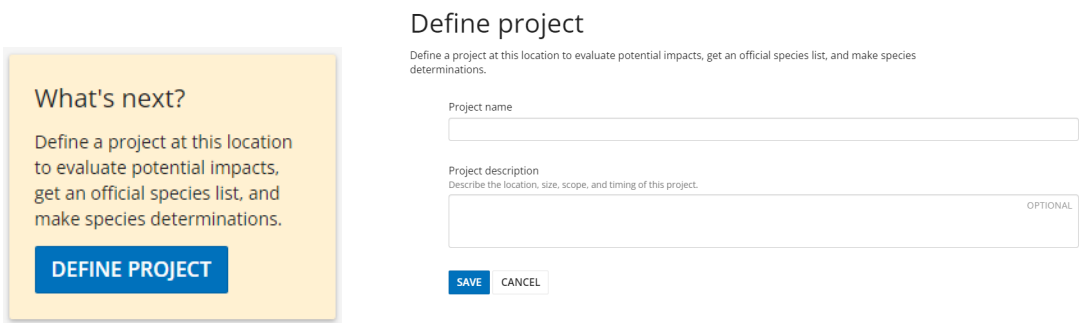


Press continue when you have finished drawing or uploading the action area location.

- The species information on the page that follows is not official. However, it identifies the project County, local Fish and Wildlife Field Office, species covered under NOAA Fisheries as well as Migratory Bird Treaty Act species. The list can be viewed in Thumbnail or List format.
- Once the species list populates you will see images of the species that may occur on, near, or transgress across your project. Click on SPECIES GUIDELINES on your top right to see Avoidance and Minimization measures to incorporate into your General Project Design Guidelines.

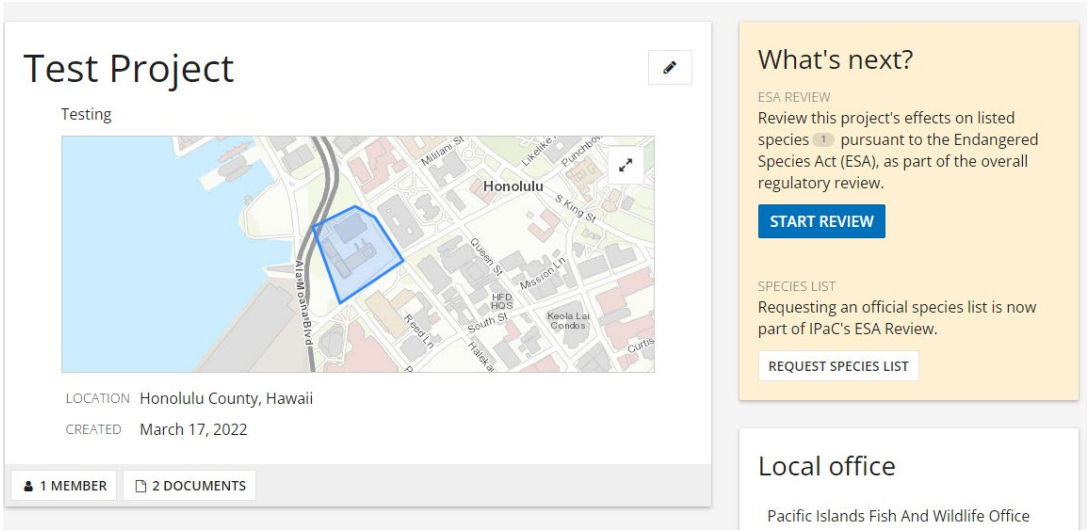


- Continue with the following steps to comply with the requirements of ESA section 7 to obtain an **official species list**.
- Select Define Project

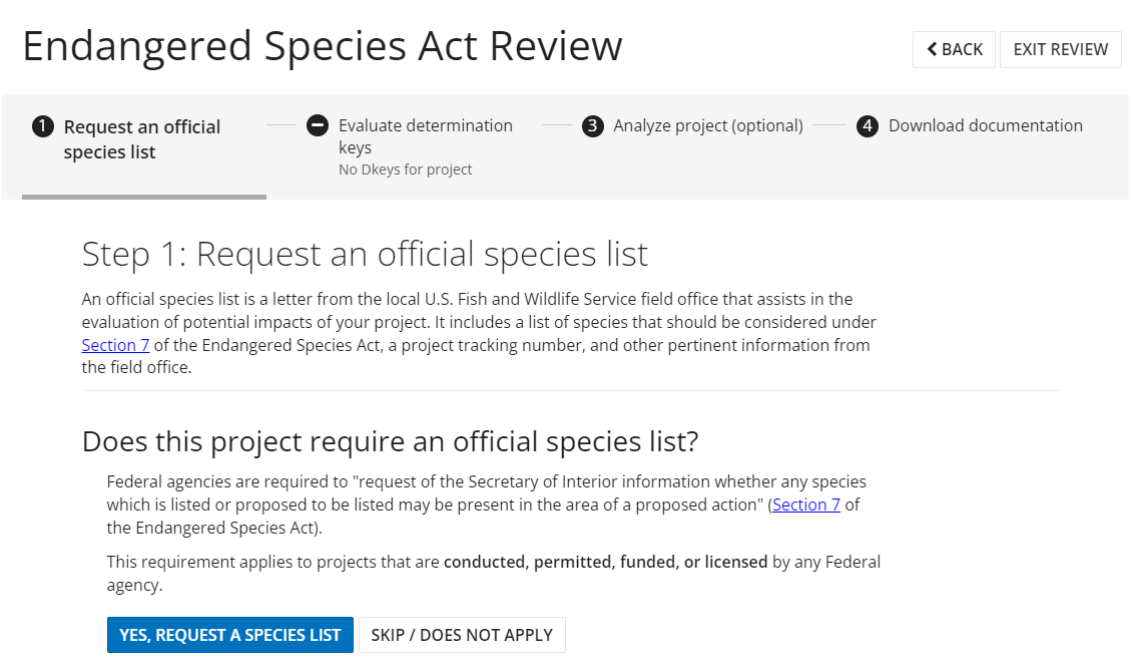


Enter the Project Name and a brief description of the project (a description is not mandatory, but recommended for future coordination with the Service). Click SAVE at bottom of page.

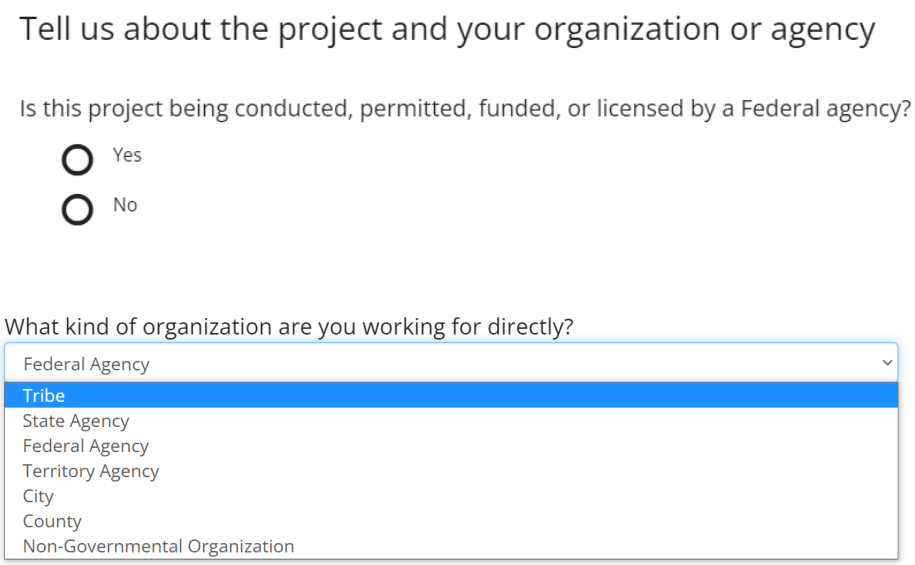
- At the bottom of the What's next box on the right, click Request Species List



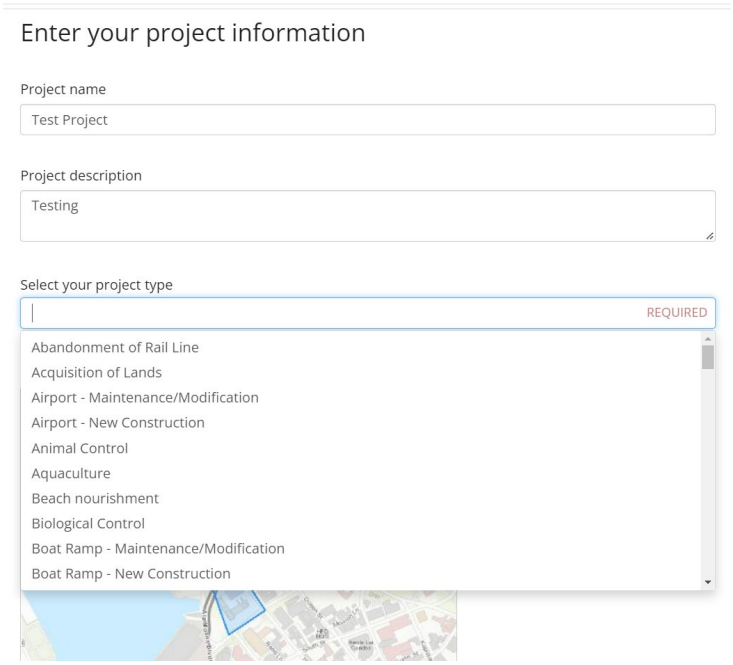
- on the following screen, click Yes, Request Species List



- Fill out the contact information for yourself or your agency. Contractors, state partners, and any other project proponents may request a species list and should be covered using the dropdown menus.



- From the pull-down menu for Classify Type of Project, select the project type that best fits the proposed action.

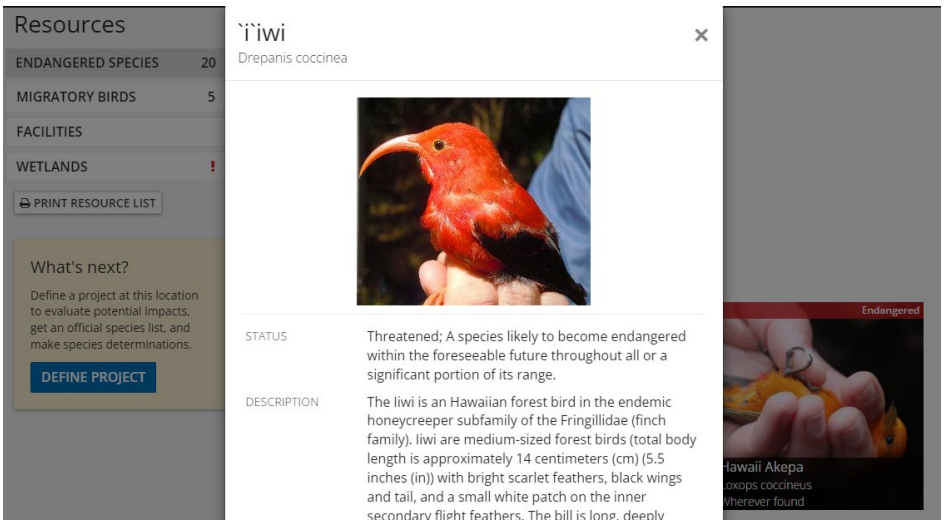


- Once all required sections are filled out, press SUBMIT OFFICIAL SPECIES LIST REQUEST



- An Official Species List should be generated and available for download in a couple of seconds.

- If you need additional information on a species, click on their name that is hot-linked to their species information page. A brief overview of the species' status, description and critical habitat will appear as well as a link to their ECOS species profile.



Kira Ramos

From: DOH.CABPDTSS <DOH.CABPDTSS@doh.hawaii.gov>
Sent: Wednesday, December 11, 2024 10:17 AM
To: 224047-01 COK Black Pot Improvements
Subject: DOH-CAB Comments on DEA Notice

Follow Up Flag: Follow up
Flag Status: Completed

Thank you for your notice regarding DEA for the Black Pot Master Plan Improvements Project. We have updated our system and our policy.

Please find CAB website including our standard comments for Land Use Reviews below:
https://health.hawaii.gov/cab/clean-air-branch/standard-comments-for-land-use-reviews/

Thank you so much for your understanding.

Anna

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Standard Comments for Land Use Reviews
Clean Air Branch
Hawaii State Department of Health
July 3, 2024

All project activities shall comply with Hawaii Administrative Rules (HAR), Chapter 11-59 and 11-60.1.

If your proposed project:

Requires an Air Pollution Control Permit

- You must obtain an air pollution control permit from the Clean Air Branch and comply with all applicable conditions and requirements. If you do not know if you need an air pollution control permit, please contact the Permitting Section of the Clean Air Branch.
- Permit application forms can be found here: https://health.hawaii.gov/cab/permit-application- forms/

Has the potential to generate fugitive dust

- You must reasonably control the generation of all airborne, visible fugitive dust. Note that construction activities that occur near existing residences, businesses, public areas and major thoroughfares exacerbate potential dust concerns. It is recommended that a dust control management plan be developed which identifies and mitigates all activities that may generate airborne, visible fugitive dust. The plan, which does *not* require Department of Health approval, should help you recognize and minimize potential airborne, visible fugitive dust problems.
- Construction activities must comply with the provisions of Hawaii Administrative Rules, §11- 60.1-33 on Fugitive Dust. In addition, for cases involving mixed land use, it is strongly recommended that buffer zones be established, wherever possible, in order to alleviate potential dust concerns.
- You must provide reasonable measures to control airborne, visible fugitive dust from the road areas and during the various phases of construction. These measures include, but are not limited to, the following:
    - Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
    - Providing an adequate water source at the site prior to start-up of construction activities;
    - Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
    - Minimizing airborne, visible fugitive dust from shoulders and access roads;
    - Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
    - Controlling airborne, visible fugitive dust from debris being hauled away from the project site.
- If you have questions about fugitive dust, please contact the Enforcement Section of the Clean Air Branch. Please also see fugitive dust fact sheet at: https://health.hawaii.gov/cab/files/2024/02/Hawaii-Fugitive-Dust-Fact-Sheet-February-2024.pdf.

Includes construction, demolition, or renovation activities that involve potential asbestos and lead containing materials

- Please contact the Indoor and Radiological Health Branch at (808) 586-4700 or visit: https://health.hawaii.gov/irhb/

Increases the population and potential number of vehicles in an area

- The creation of apartment buildings, complexes, and residential communities may increase the overall population in an area. Increasing the population in an area may inadvertently lead to more air pollution via vehicle exhaust. Vehicle exhaust releases pollutants in the air that can negatively impact human health and air quality, including lung irritants, carcinogens, and greenhouse gases.
- Ensure that drivers keep vehicle idling times to three (3) minutes or less.
- Consider and incorporate support for alternative transportation options such as bike racks and/or electric vehicle charging stations where possible.

If you have any questions, please contact the Clean Air Branch at (808) 586-4200 or at cab@doh.hawaii.gov.

Kira Ramos

From: Saito, Tracie <tracie.saito@doh.hawaii.gov>
Sent: Friday, December 27, 2024 12:41 PM
To: 224047-01 COK Black Pot Improvements
Cc: Balmilero, Diane Orsino
Subject: RE: Early Consultation for a Chapter 343, Hawai`i Revised Statues (HRS) Draft Environmental Assessment (EA), Black Pot Master Plan Improvements
Attachments: SHWB-standard-comments-v4-October-2024-update.pdf; G70, 11182024, EA-BlackPotMasterPlanImprovements.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Aloha,

Please see the attached documentation in response to the request regarding Black Pot Master Plan Improvements (Hanalei, Island of Kaua`i, Hawai`i).

Thank you,
Tracie Saito
Office Assistant | Solid and Hazardous Waste Branch
Hawai'i State Department of Health | Ka 'Oihana Olakino
2827 Waimano Home Road, #100 | Pearl City, HI 96782
Office: (808) 586-4226

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111 S. King Street
Suite 170
Honolulu, HI 96813
808.523.5866
www.g70.design

NOV 20 2024
SCANNED

November 18, 2024

Subject: Early Consultation for a Chapter 343, Hawai'i Revised Statutes (HRS) Draft Environmental Assessment (EA)
Black Pot Master Plan Improvements
Hanalei, Island of Kaua'i, Hawai'i
Tax Map Key (TMK): (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049

Aloha Participant:

On behalf of the County of Kaua'i, Department of Parks and Recreation (DPR), G70 is preparing a Draft EA, pursuant to HRS, Chapter 343, and Hawai'i Administrative Rules (HAR), Chapter 11-200.1 for the Black Pot Master Plan Improvements project.

The Master Plan Improvements were developed through collaboration with a diverse group of community members and park users, including fishermen, surfers, canoe paddlers, boaters, jet ski operators, campers, beach-going families, neighboring landowners, commercial and tourism representatives, government agencies, and community organizations. This planning process, which began in early 2019 and concluded in 2021, included multiple meetings with various stakeholders to gather input on the future of Black Pot Beach Park. The outcome of this process outlined the recommended actions:

A. Rehabilitation of the Existing Boat Ramp at the End of Weke Road
B. Demolition of the Existing Canoe Hale
C. Installation of a New Pavilion with a Comfort Station and Outdoor Showers
D. Improvements to the Boat Washdown Area
E. Improvements to the Boat Trailer Parking Area and Roadway
F. Improvements to the Parking Areas
G. Feasibility Study for Boat Ramp Improvements
H. Installation of Appropriate Signage, Lighting, and Fencing Throughout the Park
I. Infrastructure Improvements Throughout the Park

To implement the Master Plan Improvements, G70 is preparing a Draft EA under the regulatory guidance of HRS, Chapter 343, and HAR, Chapter 11-200.1. As part of the Draft EA procedures, DPR is conducting early consultation to seek input from agencies, citizen groups, and individuals on the scope of the Draft EA and technical studies. If you would like to provide comments, please respond via U.S. mail or send an email to G70, as provided below, no later than January 3, 2025.

G70
111 S. King Street, Suite 170
Honolulu, HI 96813-4307
Attn: Mark Kawika McKeague, AICP
Email: blackpot@g70.design

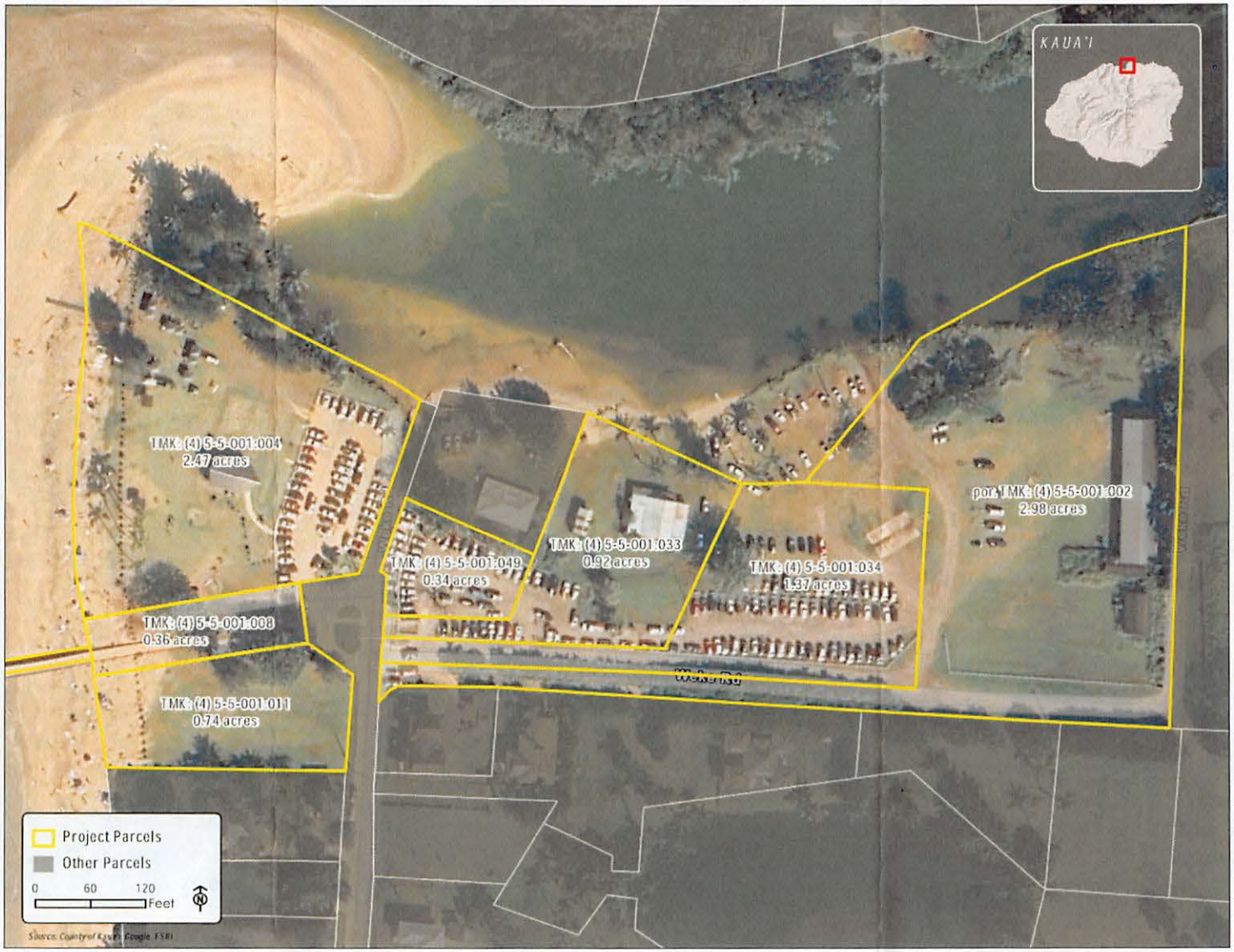
Thank you for your participation in the early consultation process for this project.

Sincerely,

GROUP 70 INTERNATIONAL, INC., dba G70

Mark Kawika McKeague, AICP
Principal

Black Pot Master Plan Improvements
November 18, 2024



Project Location and TMK Map

Black Pot Master Plan Improvements
November 18, 2024



Master Plan Improvements

Solid and Hazardous Waste Branch
Standard Comments

October 11, 2024

The Solid and Hazardous Waste Branch administers programs in the areas of:

1) Management of hazardous waste;
2) Management of solid waste; and
3) Regulation of underground storage tanks.

Our general comments on projects are below. For further information about these programs, please contact the Solid and Hazardous Waste Branch at (808) 586-4226. All chapters of the Hawaii Revised Statutes (HRS) are at https://www.capitol.hawaii.gov/hrscurrent/.

Hazardous Waste Program

- The state regulations for hazardous waste and used oil are in chapters 11-260.1 to 11-279.1, Hawaii Administrative Rules (HAR) [https://health.hawaii.gov/shwb/hazwaste/hwrules/]. These rules apply to the identification, handling, transportation, storage and disposal of regulated hazardous waste and used oil. Generators, transporters and treatment, storage, and disposal facilities of hazardous waste and used oil must adhere to these requirements. Violations are subject to penalties under chapter 342J, HRS.

Solid Waste Section

- The Solid Waste Section (SWS) enforces laws and regulations contained in chapters 342H and 342I, HRS, and chapter 11-58.1, HAR, "Solid Waste Management Control" [http://health.hawaii.gov/shwb/solid-waste/].

- The purpose of the rules is to establish minimum standards governing the design, construction, installation, operation, and maintenance of solid waste disposal, recycling, reclamation and transfer systems.

- All facilities that accept solid wastes are required to obtain a solid waste management permit from the SWS. Examples of the types of facilities governed by these regulations include landfills, transfer stations and convenience centers, recycling facilities, composting facilities, and salvage facilities. Medical waste, infectious waste, and foreign waste treatment facilities are also included.

- Generators of solid waste are required to ensure that their wastes are properly delivered to permitted solid waste management facilities. Managers of construction and demolition projects should require their waste contractors to submit disposal receipts and invoices to ensure proper disposal of wastes.

Solid and Hazardous Waste Branch Standard Comments

Office of Solid Waste Management

- The Office of Solid Waste Management (OSWM) administers statewide integrated solid waste management planning activities, which apply to the counties, as well as various recycling programs, e.g. the Glass Advance Disposal Fee (ADF) and Deposit Beverage Container (DBC) Programs. Management of the DBC Program is conducted pursuant to chapter 342G, HRS, which contains compliance and enforcement provisions, and chapter 11-282, HAR, "Deposit Beverage Recycling" [http://health.hawaii.gov/hi5/rules-regulations-additional-links/]. OSWM is also responsible for limited enforcement and compliance of solid waste management facilities that operate primarily as certified DBC redemption centers pursuant to chapter 342H, HRS, and chapter 11-58.1, HAR, "Solid Waste Management Control" [http://health.hawaii.gov/shwb/solid-waste/]. Authority for the integrated solid waste management planning and ADF programs is contained in chapter 342G, HRS.

- Glass Advance Disposal Fee Program: Businesses that import glass containers into Hawaii are required to register with the Department of Health and pay a 1.5 cent per container fee. Fee revenue is distributed to the counties for the operation of glass recycling programs.

- Deposit Beverage Container Program: Business that manufacture or import deposit beverage containers into Hawaii are required to register with the Department of Health and pay the five cent deposit and one cent container fee on each deposit container. Deposits and fees are deposited into a special fund and are used to reimburse DBC redemption center refunds paid to consumers; and to pay handling fees to redemption/recycling companies to process and recycle collected deposit beverage containers; and to pay program administrative costs.

- The Department of Health reimburses and pays an associated handling fee for the redemption of deposit beverage containers (DBC). These transactions are conducted only with certified redemption centers. Certification requires obtaining a solid waste management permit from the SWS (which addresses environmental issues) and a certification from the DBC program (which standardizes the redemption process).

- Chapter 342G, HRS, encourages the reduction of waste generation, reuse of discarded materials, and the recycling of solid waste. Businesses, property managers and developers, and government entities are highly encouraged to develop solid waste management plans to ensure proper handling of wastes and divert recyclables from being landfilled.

- Solid waste management plans seek to maximize waste diversion and minimize disposal. Such plans should include designated areas to promote the collection of reusable and recyclable materials.

Underground Storage Tank Program

- The state's underground storage tank (UST) regulations, found in chapter 11-280.1, HAR [http://health.hawaii.gov/shwb/underground-storage-tanks/], include specific requirements that UST owners and operators must meet when installing, operating, and permanently closing their UST systems and addressing releases from USTs. Violations are subject to penalties under chapter 11-280.1, HAR, and chapter 342L, HRS.

- A permit is required prior to the installation and operation of a UST. Any new UST system that will be installed must have secondary containment with interstitial monitoring. Refer to subchapters 2, 3, 4, and 12 of chapter 11-280.1, HAR. The installation permit expires 1 year from the date of issuance. The operation permit expires 5 years from the date of issuance.

- §11-280.1-50, HAR, requires owners and operators of USTs or tank systems to notify DOH within twenty-four (24) hours and follow the procedures in §11-280.1-52, HAR, if any of the following occur, with specific exceptions found in the rules:
  1) The discovery by any person of evidence of regulated substances which may have been released at the UST site or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, or nearby surface water);
  2) Unusual UST system operating conditions observed or experienced (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST, or an unexplained presence of water in the tank); or
  3) Monitoring results from a release detection method required under §§11-280.1-41 or 11-280.1-42 indicate a release may have occurred.

- For release response actions, responsible parties and their consultants and contractors should not only follow the applicable regulations, but also the Department of Health Hazard Evaluation Emergency (HEER) Office Technical Guidance Manual, HEER Environmental Action Level (EAL) guidance, and other guidance documents on the DOH HEER Office website [https://health.hawaii.gov/heer/], including those pertaining to Multi-Increment Sampling of soil, low flow groundwater sampling, soil vapor sampling, and Environmental Hazard Evaluations (EHE)/Environmental Hazard Management Plans (EHMP).

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

January 3, 2025

G70
ATTN: Mark Kawika McKeague, AICP
111 S. King Street, Suite 170
Honolulu, Hawai'i 96813-4307

via email: blackpot@g70.design

SUBJECT: Early Consultation for a Chapter 343 Hawai'i Revised Statutes (HRS) and Hawai'i Administrative Rules (HAR) Chapter 11-200.1, **Draft Environmental Assessment (EA) for the Black Pot Master Plan Improvements.** Located at Hanalei, Island of Kaua'i; TMK: (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049.

Dear Mr. McKeague

Thank you for the opportunity to review and comment on the subject matter. The Land Division of the Department of Land and Natural Resources (DLNR) distributed or made available a copy of your request pertaining to the subject matter to DLNR's Divisions for their review and comments.

At this time, enclosed are comments from the Division of Boating and Ocean Recreation (DOBOR), the Division of Aquatic Resources (DAR), the Commission on Water Resource Management (CWRM), and the Land Division – Kaua'i District (KDLO) on the subject matter. Should you have any questions, please feel free to contact Dayna Vierra (808) 587-0423 or email: dayna.k.vierra@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosures

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
Office of Conservation and Coastal Lands
P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY

CIARA W.K. KAHAHANE
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF: OCCL: KS

COR: KA 25-95

Dec 10, 2024

Mark Kawika McKeague, AICP
Group 70 International, Inc.
111 S King Street, Suite 170
Honolulu, HI 96813

SUBJECT: Early Consultation Comments for Draft Environmental Assessment for Black Pot Master Plan Improvements
Located at 4997 Weke Road
Por. of Hanalei, Island of Kauai
Tax Map Keys (TMKs): (4) 5-5-001:004, 033

Dear Mark Kawika McKeague:

The Office of Conservation and Coastal Lands (OCCL) has reviewed your letter. Group 70 International, Inc. (G70) on behalf of the County of Kauai Department of Parks and Recreation (DPR) is seeking early consultation comments for the Draft Environmental Assessment (DEA). It appears portions of the subject parcels lie within the Resource Subzone of the State Land Use Conservation District

The OCCL regulates land uses in the State Land Use Conservation District through the issuance of Conservation District Use Permits (CDUPs) and Site Plan Approvals (SPAs) to help conserve, protect, and preserve important natural and cultural resources.

It is unclear which improvements are proposed in the Conservation District. The proposed work and identified land use will determine the type of permit required. Please provide more details of the proposed work in the Conservation District. If you are unclear if the proposed work is in the Conservation District, please contact the Land Use Commission.

Should you have any questions regarding this matter, feel free to contact Kariann Stark of the Office of Conservation and Coastal Lands at (808) 587-0380 or kariann.stark@hawaii.gov.

Sincerely,

S Michael Cain

Michael Cain, Administrator
Office of Conservation and Coastal Lands

CC: *Kauai Land Division*
Division of Boating and Ocean Recreation
County of Kauai, Planning Department

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

November 21, 2024

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
X Div. of Boating & Ocean Recreation (richard.t.howard@hawaii.gov)
X Engineering Division (DLNR.ENGR@hawaii.gov)
X Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
X Div. of State Parks (curt.a.cottrell@hawaii.gov)
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – **Kaua'i** District (alison.neustein@hawaii.gov)
X Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT: Early Consultation **for a Chapter 343 Hawai'i Revised Statutes** (HRS) and **Hawai'i Administrative Rules (HAR) Chapter** 11-200.1, **Draft Environmental Assessment (EA) for the Black Pot Master Plan Improvements.**

LOCATION: Hanalei, Island of **Kaua'i**; TMK: (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049.

APPLICANT: G70 on behalf of **The County of Kaua'i, Department of Parks and Recreation** (DPR).

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **January 2, 2025.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
(X) We have no comments.
( ) We have no additional comments.
( ) Comments are included/attached.

Signed: *Alison Neustein*
Print Name: Alison Neustein
Division: DLNR, KDLO
Date: 12/2/24

Attachments

RECEIVED
LAND DIVISION
2024 NOV 25 PM 1:44
DEPT OF LAND & NATURAL RESOURCES
STATE OF HAWAII

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

November 21, 2024

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
X Div. of Boating & Ocean Recreation (richard.t.howard@hawaii.gov)
X Engineering Division (DLNR.ENGR@hawaii.gov)
X Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
X Div. of State Parks (curt.a.cottrell@hawaii.gov)
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Kaua'i District (alison.neustein@hawaii.gov)
X Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT: Early Consultation for a Chapter 343 Hawai'i Revised Statutes (HRS) and Hawai'i Administrative Rules (HAR) Chapter 11-200.1, **Draft Environmental Assessment (EA) for the Black Pot Master Plan Improvements.**

LOCATION: Hanalei, Island of Kaua'i; TMK: (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049.

APPLICANT: G70 on behalf of The County of Kaua'i, Department of Parks and Recreation (DPR).

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **January 2, 2025.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

BRIEF COMMENTS:

The Division of Boating and Ocean Recreation would prefer to set aside the Hanalei Pier (TMK: (4) 5-5-001-008) to the County of Kauai through Executive Order. This would allow the county to develop a comprehensive master plan for the park and to properly regulate commercial activity within the park.

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(X) Comments are included/attached.

Signed: *Meghan L. Statts*
Print Name: Meghan L. Statts
Division: Division of Boating and Ocean Recreation
Date: November 22, 2024

Attachments

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

DAWN N.S. CHANG
CHAIRPERSON

KENNETH S. FINK, M.D., MGA, MPH
AURORA KAGAWA-VIVIANI, PH.D.
WAYNE K. KATAYAMA
PAUL J. MEYER
LAWRENCE H. MIIKE, M.D., J.D.
V.R. HINANO RODRIGUES

CIARA W.K. KAHAHANE
DEPUTY DIRECTOR

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'OIHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
P.O. BOX 621
HONOLULU, HAWAII 96809

Dce 12, 2024

REF: RFD.6354.2

TO: Mr. Russell Tsuji, Administrator
Land Division

FROM: Ciara W.K. Kahahane, Deputy Director
Commission on Water Resource Management

SUBJECT: Black Pot Master Plan

FILE NO.: RFD.6354.2
TMK NO.: (4) 4-5-001:002, (4) 4-5-001:004, (4) 4-5-001:008, (4) 4-5-001:011, (4) 4-5-001:033, (4) 4-5-001:034, (4) 4-5-001:049

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://dlnr.hawaii.gov/cwrm.

Our comments related to water resources are checked off below.

- [ ] 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- [ ] 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- [ ] 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- [ ] 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EAP as having high water efficiency can be found at http://www.epa.gov/watersense.
- [X] 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://planning.hawaii.gov/czm/initiatives/low-impact-development/
- [X] 6. We recommend the use of alternative water sources, wherever practicable.
- [ ] 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at http://energy.hawaii.gov/green-business-program.
- [ ] 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf.

- [X] 9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- [ ] 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
- [ ] 11. The Hawaii Water Plan is directed toward the achievement of the utilization of reclaimed water for uses other than drinking and for potable water needs in one hundred per cent of State and County facilities by December 31, 2045 (§174C-31(g)(6), Hawaii Revised Statutes). We strongly recommend that this project consider using reclaimed water for its non-potable water needs, such as irrigation. Reclaimed water may include, but is not limited to, recycled wastewater, gray water, and captured rainwater/stormwater. Please contact the Hawai'i Department of Health, Wastewater Branch, for more information on their reuse guidelines and the availability of reclaimed water in the project area.
- [ ] 12. A Well Construction Permit(s) is (are) are required before the commencement of any well construction work.
- [ ] 13. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- [ ] 14. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- [ ] 15. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- [ ] 16. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a steam channel.
- [ ] 17. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
- [ ] 18. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- [ ] 19. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

- [ ] OTHER:

If you have any questions, please contact Ryan Imata of the Groundwater Regulation Branch at (808) 587-0225 or Katie Roth of the Planning Branch (808) 587-0216.

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

November 21, 2024

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (kendall.l.tucker@hawaii.gov)
X Div. of Boating & Ocean Recreation (richard.t.howard@hawaii.gov)
X Engineering Division (DLNR.ENGR@hawaii.gov)
X Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
X Div. of State Parks (curt.a.cottrell@hawaii.gov)
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Kaua'i District (alison.neustein@hawaii.gov)
X Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT: Early Consultation for a Chapter 343 Hawai'i Revised Statutes (HRS) and Hawai'i Administrative Rules (HAR) Chapter 11-200.1, **Draft Environmental Assessment (EA) for the Black Pot Master Plan Improvements.**

LOCATION: Hanalei, Island of Kaua'i; TMK: (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049.

APPLICANT: G70 on behalf of The County of Kaua'i, Department of Parks and Recreation (DPR).

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **January 2, 2025.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed: *D K. Sh*
Print Name: David Sakoda for Brian J. Neilson- Administrator
Division: Aquatic Resources
Date: 01/02/2025

Attachments

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL
RESOURCES DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: 1-2-2025
DAR # AR6807

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY

CIARA W.K. KAHAHANE
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION BUREAU
OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Heather Ylitalo-Ward, Aquatic Biologist

SUBJECT: Draft Environmental Assessment (EA) for the Black Pot Master Plan Improvements.

Request Submitted by: G70 on behalf of The County of Kaua'i, Department of Parks and

Location of Project: Hanalei, Island of Kaua'i; TMK: (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049.

Brief Description of Project:

The County of Kauai, Department of Parks and Recreation has hired G70 to prepare a Draft EA for the Black Post Master Plan Improvements project. This project includes: rehabilitation of the existing boat ramp at the end of Weke Road, demolition of the existing canoe hale, installation of a new pavilion with a comfort station and outdoor showers, improvements to the boat wash down area, improvements to the boat trailer parking area and roadway, improvements to the parking areas, feasibility study for boat ramp improvements, installation of appropriate signage, lighting, and fencing throughout the park, and infrastructure improvements throughout the park.

Comments:

☐ No Comments ☑ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: _____ Date: 01/02/2025

for Brian J. Neilson
DAR Administrator

DAR# AR6807

Comments

Thank you for the opportunity to comment. This river and estuary is an important nursery area to many juvenile fish as well as providing habitat for turtles and other protected species. Please include potential impacts to aquatic species when creating this EA. Additionally, please include the following Best Management Practices (BMPs):

1) Conduct a daily inspection of equipment for conditions that could cause spills or leaks; clean equipment prior to operation near the water; properly site storage, refueling, and servicing sites; and implement spill response procedures and stormy weather preparation plans;

2) Any activity related debris that may pose an entanglement hazard to marine protected species must be removed from the project site if not actively being used and/or at conclusion of the day;

3) No contamination (trash or debris disposal, alien species introductions, etc.) of riverine, estuarine, or marine (reef flats, lagoons, open oceans, etc.) environments adjacent to the project site shall result from project related activities;

4) No contamination of the marine environment shall result from the permitted activities. Particular care must be taken to ensure that no petroleum products, trash, or other debris enter river, near-shore, and ocean waters;

5) The work shall be conducted so as to prevent the discharge or accidental spillage of pollutants, solid waste debris, and other objectionable wastes in surface waters;

6) Visual surveys for ESA-listed marine species shall be made prior to the start of work each day, and prior to resumption of work following any break of more than 1/2 hour, to ensure that no protected species are in the area (typically within 50 yards of the proposed work).

7) In the unlikely event of a protected species approaching within 50 yards of the construction area, please halt all work and call DAR to consult on how to proceed.

111 S. King Street
Suite 170
Honolulu, HI 96813
808.523.5866
www.g70.design

November 18, 2024

Subject: Early Consultation for a Chapter 343, Hawai'i Revised Statutes (HRS)
Draft Environmental Assessment (EA)
Black Pot Master Plan Improvements
Hanalei, Island of Kaua'i, Hawai'i
Tax Map Key (TMK): (4) 4-5-001:002 [por.], 004, 008, 011, 033, 034 & 049

Aloha Participant:

On behalf of the County of Kaua'i, Department of Parks and Recreation (DPR), G70 is preparing a Draft EA, pursuant to HRS, Chapter 343, and Hawai'i Administrative Rules (HAR), Chapter 11-200.1 for the Black Pot Master Plan Improvements project.

The Master Plan Improvements were developed through collaboration with a diverse group of community members and park users, including fishermen, surfers, canoe paddlers, boaters, jet ski operators, campers, beach-going families, neighboring landowners, commercial and tourism representatives, government agencies, and community organizations. This planning process, which began in early 2019 and concluded in 2021, included multiple meetings with various stakeholders to gather input on the future of Black Pot Beach Park. The outcome of this process outlined the recommended actions:

A. Rehabilitation of the Existing Boat Ramp at the End of Weke Road
B. Demolition of the Existing Canoe Hale
C. Installation of a New Pavilion with a Comfort Station and Outdoor Showers
D. Improvements to the Boat Washdown Area
E. Improvements to the Boat Trailer Parking Area and Roadway
F. Improvements to the Parking Areas
G. Feasibility Study for Boat Ramp Improvements
H. Installation of Appropriate Signage, Lighting, and Fencing Throughout the Park
I. Infrastructure Improvements Throughout the Park

To implement the Master Plan Improvements, G70 is preparing a Draft EA under the regulatory guidance of HRS, Chapter 343, and HAR, Chapter 11-200.1. As part of the Draft EA procedures, DPR is conducting early consultation to seek input from agencies, citizen groups, and individuals on the scope of the Draft EA and technical studies. If you would like to provide comments, please respond via U.S. mail or send an email to G70, as provided below, no later than January 3, 2025.

G70
111 S. King Street, Suite 170
Honolulu, HI 96813-4307
Attn: Mark Kawika McKeague, AICP
Email: blackpot@g70.design

Thank you for your participation in the early consultation process for this project.

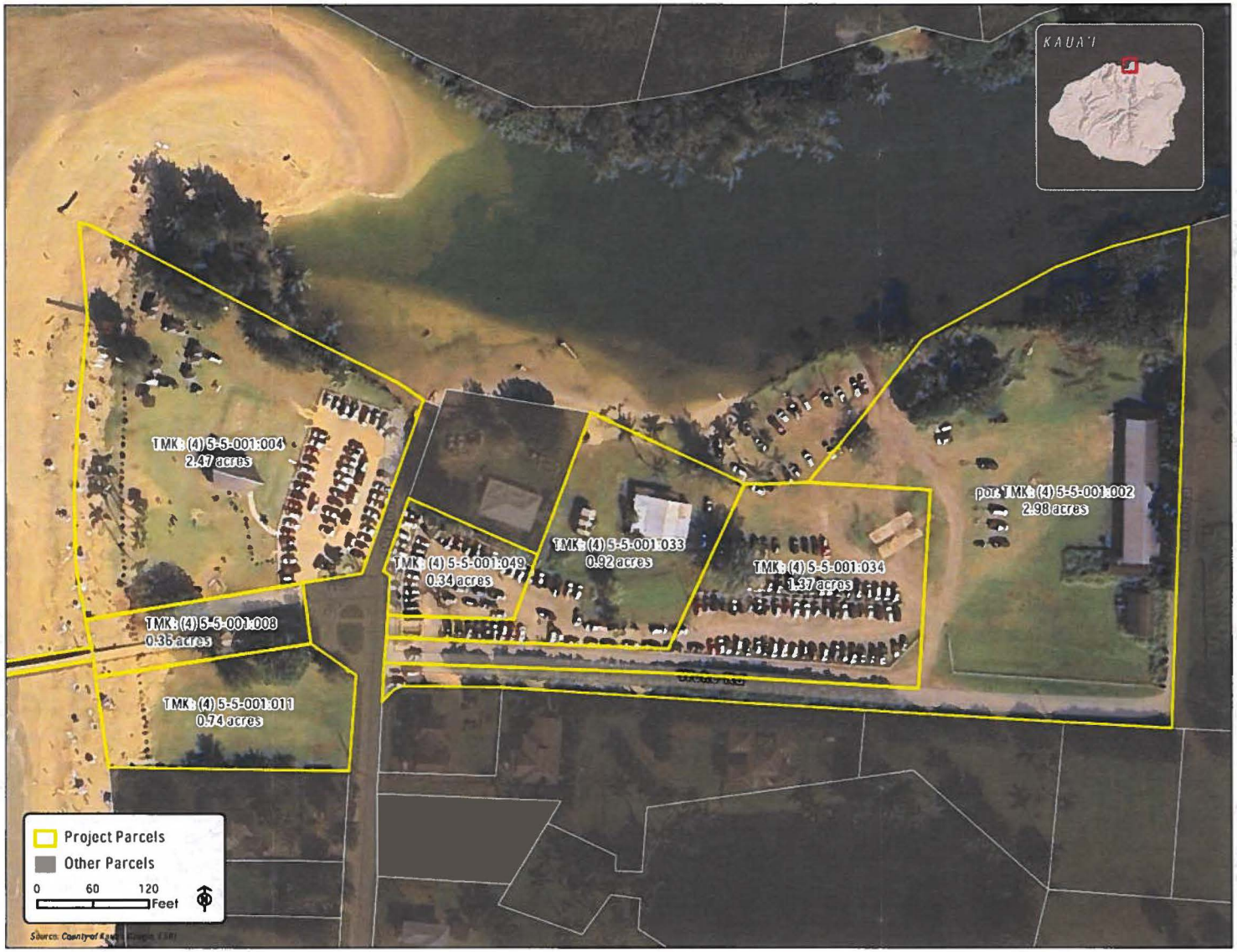
Sincerely,

GROUP 70 INTERNATIONAL, INC., dba G70

Mark Kawika McKeague, AICP
Principal

RECEIVED
LAND DIVISION
2024 NOV 20 PM 2:58
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

Black Pot Master Plan Improvements
November 18, 2024



Project Location and TMK Map

Black Pot Master Plan Improvements
November 18, 2024



Master Plan Improvements

Water has no substitute……. Conserve it

ENGINEERING DIVISION
DEPARTMENT OF WATER, COUNTY OF KAUA'I
JASON F. KAGIMOTO, P.E.

JOSEPH E. TAIT
MANAGER AND CHIEF ENGINEER

MICHAEL K. HINAZUMI, P.E.
DEPUTY MANAGER-ENGINEER

January 13, 2025

Mark Kawika McKeague
Group 70 International, INC
111 S. King Street, Suite 170
Honolulu, Hawaii 96813-4307

Dear Mark Kawika McKeague:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment: Black Pot Master Plan Improvements, TMK: 5-5-001 parcels 002, 004, 008, 011, 033, 034 and 049, Weke Road, Hanalei, Kauai.

This is in regard to your letter dated November 18, 2024. We have no objections to the proposed Draft Environmental Assessment. The following are our comments to the subject Draft Environmental Assessment for Black Pot Master Plan Improvements.

Water service will be limited to the existing water meters serving this parcel. Any actual subdivision or development of this area will be dependent on the adequacy of the source, storage and transmission facilities existing at that time. At the present time, the existing storage and transmission facilities are adequate.

Prior to the Department of Water (DOW) recommending building permit or water service approval, the applicant will be required to:

1. Submit a formal request for water service. The applicant shall describe the proposed water meter use. The applicant shall submit detailed water demand calculations, along with the proposed water meter size, to the DOW for review and approval. DOW condition for approval may change based on the approved water demands and use.

2. Be made aware that domestic and fire flow water demands as recommended by the DOW's Water System Standards (WSS) may be inadequate for the proposed development. WSS Table 100-19A identifies fire flow requirements for commercial use as 2000 gpm.

   The applicant is **required** to submit fire flow test data and calculations prepared and signed by an Engineer. The DOW's comments may change depending on the additional information provided.

ENGINEERING DIVISION
DEPARTMENT OF WATER, COUNTY OF KAUA'I
JASON F. KAGIMOTO, P.E.

JOSEPH E. TAIT
MANAGER AND CHIEF ENGINEER

MICHAEL K. HINAZUMI, P.E.
DEPUTY MANAGER-ENGINEER

3. Prepare and receive DOW's approval of construction drawings for the necessary water system facilities and construct said facilities. These facilities shall include but not be limited to:

   a) A water main extension / upgrade, if applicable.

   b) The domestic service connection.

      (depending on Item1)

   c) The fire service connection, if applicable.

   d) The interior plumbing plans with the appropriate backflow prevention device for proposed and existing water meter(s).

4. Pay the applicable charges in effect at the time of payment to the DOW. At the present time, these charges include the Facilities Reserve Charge (FRC) which is based on the approved water meter size.

5. Receive a "Certification of Completion" notice for the construction of necessary water system facilities from the DOW.

If you have any questions, please contact Ms. Lillian Mack at (808) 245-5405 or wrp@kauaiwater.org.

Sincerely,

Regina Reyes-Flores
Regina Reyes-Flores (Jan 13, 2025 16:13 HST)
Regina Reyes-Flores, P.E.
Water Resources and Planning Section

5-5-001-002, 004, 008, 011, 033, 034, 049, Date, Group70, Draft EA/RF:lm

Nāmolokama O Hanalei
Canoe Club
P.O. Box 729 * Hanalei * HI * 96714

Black Pot Master Plan November 20, 2024

G70
111 S. King Street, Suite 170
Honolulu, HI 96813-4307
Attn: Mark Kawika McKeague, AICP
Email: blackpot@g70.design

Aloha Mr. McKeague,

On behalf of Namolokama Canoe Club I'd like to thank G70 for the process of planning our Black Pot Park's upgrades. This park is a cherished part of our community, and the planning has been sensitive and encompassing to all involved. I have a few comments as they relate to our Canoe Club and its place in the center of the Park. ("Not in Master Plan") on map.

1. Canoe Hale: As a historic building built in 1974 this hale is a unique building which adds character to the park, honors its history as a public space and provides a necessary space for canoe storage, permitted pavilion use and other gatherings. The Park seems to be getting whitewashed of its history. We believe keeping the building adds many benefits. Demolishing the building for open space away from the river is pointless or even worse to turn it into parking.
2. Bathrooms The "Existing comfort station 2020" is a stain on the park. It's been named the Halawa Prison Complex by locals. The County admits that this portable building will not be moved in case of flooding which was the original design. This should be revisited.
3. Access to Namolokama Canoe Club is Blocked by tour companies parking in front of our driveway. At high tide there is no place for these companies to stage their operations, so they wait and access our property, use our hose for rinse water and leave trash on our site.
   The Canoe Club cannot access our property with canoe trailers because the County installed fencing is too narrow. This needs to be addressed.
   During flooding the new improved Weke road acts as a dam sending water through our lot which is the new low spot. This needs to be resolved.

4. Buffer around our Hale. Map shows a green buffer around our Lot. This is highly desirable as many park users are accessing our lot for showers, trash and beach access.
5. Existing County Storage "install Security Fencing". If this area is to be used for Canoe storage the area should not be fenced off from the river. Access to this area of Wilikoki street should be able to accommodate trailers.

Mahalo for your consideration,

Hobey Beck

President Namolokama O Hanalei Canoe Club

Appendix B

Preliminary Engineering Assessment

PRELIMINARY ENGINEERING REPORT

for

Black Pot Beach Park
Master Plan Improvements

December 2025

Prepared for:
County of Kauaʻi
Department of Parks and Recreation
4444 Rice Street
Līhuʻe, HI 96766

Prepared by:

Architecture • Civil Engineering • Planning • Interior Design • Environmental Services
111 S. King Street, Suite 170, Honolulu, Hawaii 96813 (808) 523-5866

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APPENDICIES

Appendix A – Geotechnical Investigation Report by Shinsato Engineering, Inc., January 25, 2025

Appendix B – Draft IWS Feasibility Report by Laulea, November 5, 2025

LIST OF ACROYMNS

A	Area
AC	Asphalt Concrete
BMP	Best Management Practices
DOW	Department of Water
C	Coefficient Factor
CADD	Computer Aided Design Drawing
cfs	Cubic feet per second
CoK	County of Kauaʻi
DPR	Department of Parks and Recreation
DFIRM	Digital Flood Insurance Rate Map
FEMA	Federal Emergency Management Agency
FH	Fire Hydrant
Gal	Gallons
GIS	Geographic Information System
GPD	Gallons per day
GPM	Gallons per minute
KIUC	Kauaʻi Island Utility Cooperative
L	Length
LID	Low Impact Design
psi	Pounds per Square Inch Unit
Q	Flow rate in cubic feet per sec
Tc	Time of Concentration (minutes)
TMK	Tax Map Key
UPC	Uniform Plumbing Code

1 INTRODUCTION

1.1 Overview

Black Pot is a County of Kauaʻi-owned and maintained beach park on Hanalei Bay. It is located at the end of Weke Road and is utilized a launching point for both recreational and commercial boaters to Hanalei Bay. Black Pot Beach Park is widely used for a variety of ocean activities including fishing, boating, paddling, surfing and swimming. The park also serves the local community for picnics, camping and as a gathering spot. The area has also become a popular destination for visitors.

Refer to Figure 1- Vicinity Map and Figure 2 – Park Boundaries

1.2 Purpose of Report

The purpose of this report is to assess the existing site infrastructure and determine the extent of infrastructure improvements necessary to support the proposed site improvements at Black Pot Beach Park outlined in the 2021 Master Plan. The goals of the Master Plan were to improve management and protection of the resource; ensure that investments for park expansion and new facilities were strategic and cost-effective; to improve the experience and safety for park users; and to minimize conflicts between the recreational activities and interests.

1.3 Existing Conditions

The proposed improvements lie in Tax Map Key (TMK) parcels: (4) 5-5-01: 02 (por.), 04, 08, 11, 33, 34, 49. Black Pot Beach Park has total area of approximately 13.7 acres.

The Engineering Report by Esaki Surveying and Mapping, Inc., dated April 2017, noted that the County had completed the acquisition of the Hodge parcel, TMK (4) 5-5-01: 11 and the condemnation of the Sheehan parcels, TMK (4) 5-5-01: 33, 34 and 49. County records indicate that the Sheehan properties are still in the process of being recorded and conveyed to the County.

TMK (4) 5-5-01: 05 which is owned by the Namolokama oʻ Hanalei Canoe Club is not included in the proposed development area.

An archaeological preservation site exists within TMK (4) 5-5-01: 34. A 22.5-ft radius clear zone buffer has been established around the preservation site. No improvements may be constructed within this buffer zone.

Refer to Figure 3 – Existing Conditions Map

1.4 Soils/Topography

The site is generally flat with slopes varying between 0% to 5% towards the ocean. The elevations range from 6 feet on the mauka side to about 1-foot at the shoreline.

Refer to the project Geotechnical Investigation Report by Shinsato Engineering, Inc., dated January 25, 2025 for subsurface soil information.

Refer to Figure 4 – Soils Map

1.5 Flood Hazard

According to the State of Hawaii, Department of Land and Natural Resources Flood Hazard Assessment Tool, the majority of the western portion of the park lies within Zone VE (Elevation 13). A portion of the eastern end of the park lies within Zone AE (Elevation 12).

Refer to Figure 5 – Flood Insurance Rate Map

Figure 1 - Vicinity Map



Figure 2 – Park Boundaries (from 2021 Master Plan)

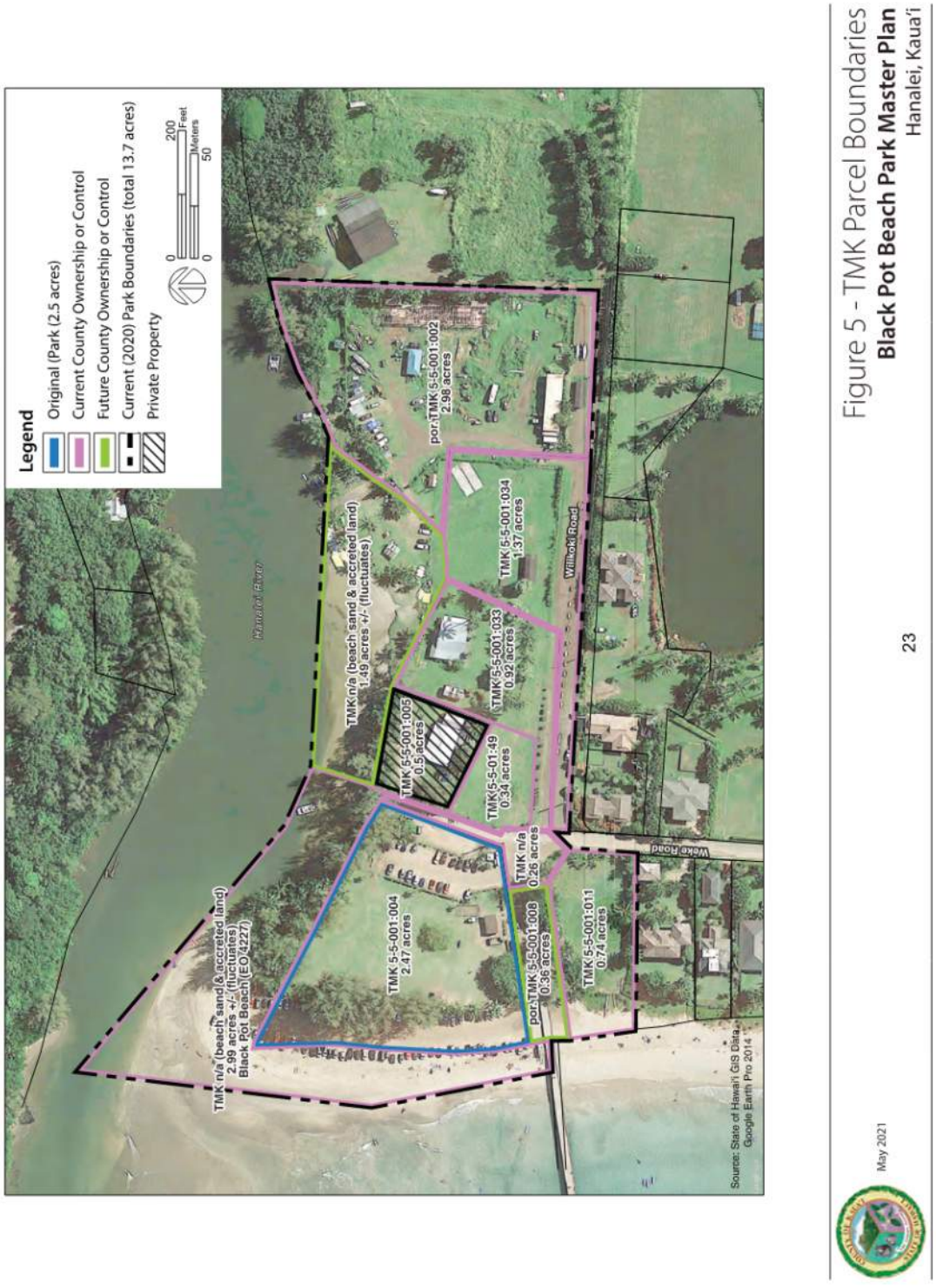


Figure 5 - TMK Parcel Boundaries
Black Pot Beach Park Master Plan
Hanalei, Kaua'i

May 2021

23

Figure 3 – Existing Conditions Plan



Figure 4 – Soils Map

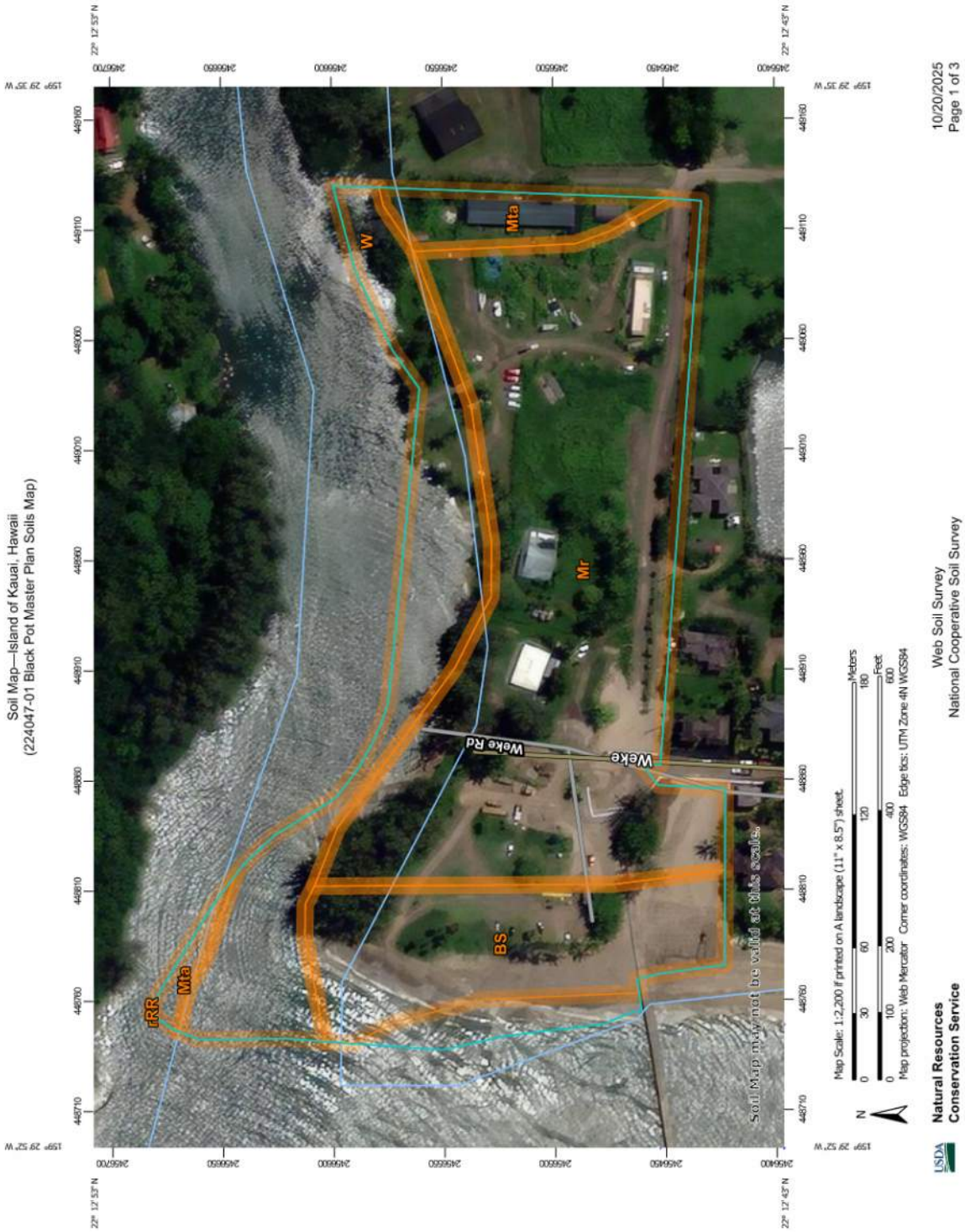
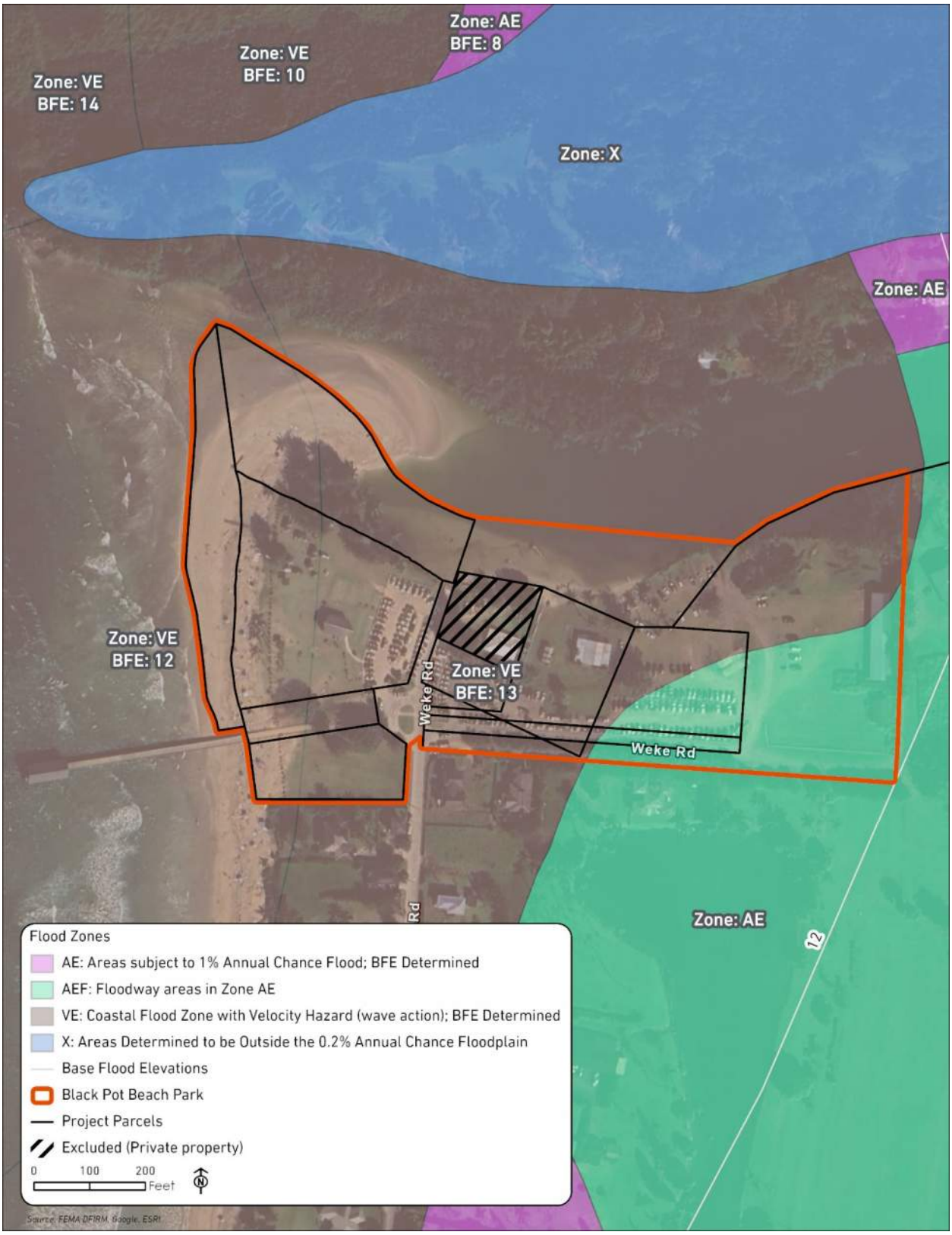


Figure 5 – Flood Insurance Rate Map



2 EXISTING INFRASTRUCTURE

2.1 Driveways, Access and Pavement

Black Pot Beach Park is located at the end of and accessed from the County-owned Weke Road. The portion of Weke Road entering the park is concrete pavement. Weke Road terminates at the non-commercial boat ramp.

Existing parking areas in the park are gravel (coral) surface except for the accessible parking stalls which are on concrete pavement.

The east end of the park is accessed via Wilikoki Place which is a private unpaved dirt/gravel road.

2.2 Existing Structures

There are six (6) existing structures currently on the park site. There is one comfort station in TMK (4) 5-5-01: 04, which was constructed under an Emergency Proclamation related to a 2018 flood event, and will remain. There is the old canoe club hale and its adjacent comfort station in TMK (4) 5-5-01: 33, both of which will be demolished under this project. At the east end of the park there is an open-air pavilion that is utilized as County storage and as a canoe hale in TMK (4) 5-5-01: 02. There are two adjacent structures to the pavilion that were part of the Sheehan estate. The two Sheehan structures will be demolished under this project; the pavilion will remain.

Two (2) boat launch ramps are present at the park. On the west side of the park at the end of Weke Road is the commercial boat ramp. Adjacent to TMK (4) 5-5-01: 02 along the shoreline is the existing recreational boat ramp. An existing boat washdown concrete pad is located in TMK (4) 5-5-01: 34 near the recreational boat ramp.

There are vinyl fences along the perimeter of most of the lots within the park. There is also a chain link fence separating TMK (4) 5-5-01: 05 (not included in project scope) from TMK (4) 5-5-01: 33 and 49.

2.3 Wastewater Infrastructure

There are four (4) permitted individual wastewater systems (IWS) currently at Black Pot Park. The existing comfort station on the west end of the park is serviced by IWS Permit Nos. 62307 and 62308. IWS Permit No. 18534 is for the existing boat washdown area. IWS Permit No. 20814 is currently inactive and previously serviced the comfort station for the old canoe club hale.

There is one (1) IWS with no recorded permit that serviced the structures south of the canoe hale on the east end of the park that was part of the Sheehan Estate. The location of this IWS has not been verified in the field.

Additional information regarding the existing park IWS is presented in the project's Wastewater Feasibility Study prepared by Laulea LLC, dated August 2025, which is attached.

2.4 Water Infrastructure

Black Pot Beach Park is located within the County of Kaua‘i, Department of Water, Hanalei water service area.

Service to the park is by an 8” asbestos cement (ac) pipe in Weke Road. An 8” cast-iron (ci) water line extends off the 8” ac pipe and crosses through TMK 5-5-01: 049, 033, 034 and 002 and sites in a County-owned easement. Each parcel that comprises the park site is served by its own individual water meter as described in Table 1 below.

There are multiple hose bibbs and shower stands scattered throughout the park

There are no fire hydrants within the park. The nearest fire hydrant is on Weke Road, approximately 320-feet south of the park entrance.

TABLE 1 – WATER METER INFORMATION

TMK	METER NO.	METER SIZE	OWNER
5-5-01: 002	?	?	DPR
5-5-01: 004	08400149	1-1/2”	DPR
5-5-01: 004	91000445	5/8”	Gaylord Wilcox
5-5-01: 011	08117583	5/8”	DPR (Formerly John Hodge)
5-5-01: 012 [1]	08117585	5/8”	?
5-5-01: 033	96001208	5/8”	DPR (Formerly Hanalei River Inc.)
5-5-01: 034	04000108	5/8”	DPR (Formerly Hanalei Boat Yard)
5-5-01: 049	08115390	5/8”	DPR (Formerly PWS Trust)

Source: “Engineering Report, Hanalei Black Pot Beach Park”, Esaki Surveying and Mapping, Inc., April 2017

[1] Not within Black Pot Beach Park

2.5 Drainage Infrastructure

There is a grated trench drain at the boat washdown area that appears to connect to the nearby IWS. There are no other storm water structures within the park site. Surface runoff flows mauka to makai into Hanalei River.

2.6 Electrical and Telecom Infrastructure

Electrical service from the Kaua‘i Island Utility Corporation (KIUC) is provided to the park via overhead lines from Weke Road.

2.7 Gas Infrastructure

There is no gas service to the park.

3 PROPOSED INFRASTRUCTURE

3.1 Driveways, Access and Pavements

There are no proposed modifications or improvements to Weke Road or Wilikoki Place. The parking lot in TMK 5-5-01: 004, adjacent to the non-commercial boat ramp was reconstructed in response to the 2018 flood event and will also remain as-is.

The existing gravel parking area that covers portions of TMK (4) 5-5-01: 049, 033 and 034 will be expanded. Both DPR and community feedback have expressed the desire that the parking area surface remain as gravel/coral ground cover. Four (4) new accessible parking stalls will be provided in the expanded parking area. Concrete pavement will be constructed for the accessible parking area.

Parking in the grass area along the shoreline north of TMK (4) 5-5-01: 034 and 002 will no longer be allowed. Overflow parking may be allowed in specific sections of the grassed area by DPR.

Vehicles with boat trailers utilizing the commercial boat ramp will continue to be allowed to park in the grass area in TMK (4) 5-5-01: 002. DPR notes that there have been no issues with the current operation of the trailer parking area and has expressed a preference to keep the area grassed instead of covering it with gravel or coral. An edge concrete header or curb may be added to provide a border definition to the trailer parking area.

Refer to Figures 5 & 6 - Site and Utility Plans 1 and 2

3.2 New Structures

A new comfort station and open-air pavilion will be constructed in TMK (4) 5-5-01: 34.

TMK (4) 5-5-01: 34 is bisected by two flood zones: VE on the north and AEF on the south. The base flood elevation (BFE) for the VE zone is 13-ft and 12-ft in the AEF zone. The new comfort station is being located in the AEF zone so that a fill base can be constructed to assist with conforming with the code requirement to place the finish floor elevation (FFE) of the comfort station above the BFE. The Kauaʻi County Ordinances require that structures within the Sea Level Rise Constraint District (§8-12.5) be constructed at the higher elevation between the BFE or a minimum of one (1) foot above the top of the Sea Level Rise Flood Elevation (SLRFE). The FFE of the new comfort station will be set at 10-ft. Incorporating architectural flood proofing measures into the building design will account for the differential between the FFE and the BFE.

It is not anticipated that the grading activities relating to the construction of the new comfort station will result in “significant adverse effects” as specified in the County of Kauaʻi SMA Rules and Regulations, October 2011.

Two (2) new picnic tables will be installed in TMK (4) 5-5-01: 33. An additional picnic table will be installed along the shoreline north of the new pavilion.

The new pavilion and picnic tables are not anticipated to be subject to either the flood hazard or sea level rise requirements.

3.3 Bicycle Facilities

A new bicycle rack will be provided near the new comfort station.

3.4 Proposed Wastewater Infrastructure

The new comfort station will require wastewater service. A new IWS will be constructed in proximity to the new comfort station.

The existing inactive IWS serving the old canoe club hale (IWS Permit No. 20814) will be demolished.

Additional information regarding the new IWS is presented in the project's Wastewater Feasibility Study prepared by Laulea LLC, dated August 2025, which is attached.

Refer to Figure 5 & 6 - Site and Utility Plans 1 and 2

3.5 Proposed Water Infrastructure

Water service to the new comfort station will be sourced from the existing internal park water system in Wilikoki Place. A new water submeter will be installed near TMK (4) 5-5-01: 34 to measure water usage at the new comfort station.

New landscaping around the new pavilion and comfort station will require additional irrigation service. Service will be from the new submeter placed for the comfort station. The new irrigation system will be minimal to reduce maintenance and water usage.

3.5.1 Proposed Fire Protection

There are no proposed fire protection improvements for this project.

3.6 Proposed Drainage Infrastructure

The project is located adjacent to the Hanalei Bay and Hanalei River so no downstream properties will be affected by any increase in surface runoff generated by the project. All runoff from the park discharges directly into the ocean. The proposed improvements will result in a negligible increase in impervious surfaces so no mitigative action is necessary.

3.6.1 Low Impact Design

The construction of the new comfort station and pavilion will result in a negligible increase in impervious surfaces within the park. No pavement is planned for the parking area(s) which will instead remain either a grass, gravel or coral surface. Keeping these areas as pervious areas, will continue to assist in mitigating any increase in stormwater runoff from the new impervious surfaces. No formal low impact design (LID), post-construction best management practices (PCBMP) are required per County standards.

3.7 Proposed Electrical Service

New overhead electrical service for area lighting will extend to the new comfort station and pavilion from the existing power pole near the intersection of Weke Road and Wilikoki Place.

3.8 Gas Infrastructure

There are no proposed gas improvements for this project.

Figure 6 – Site and Utility 1

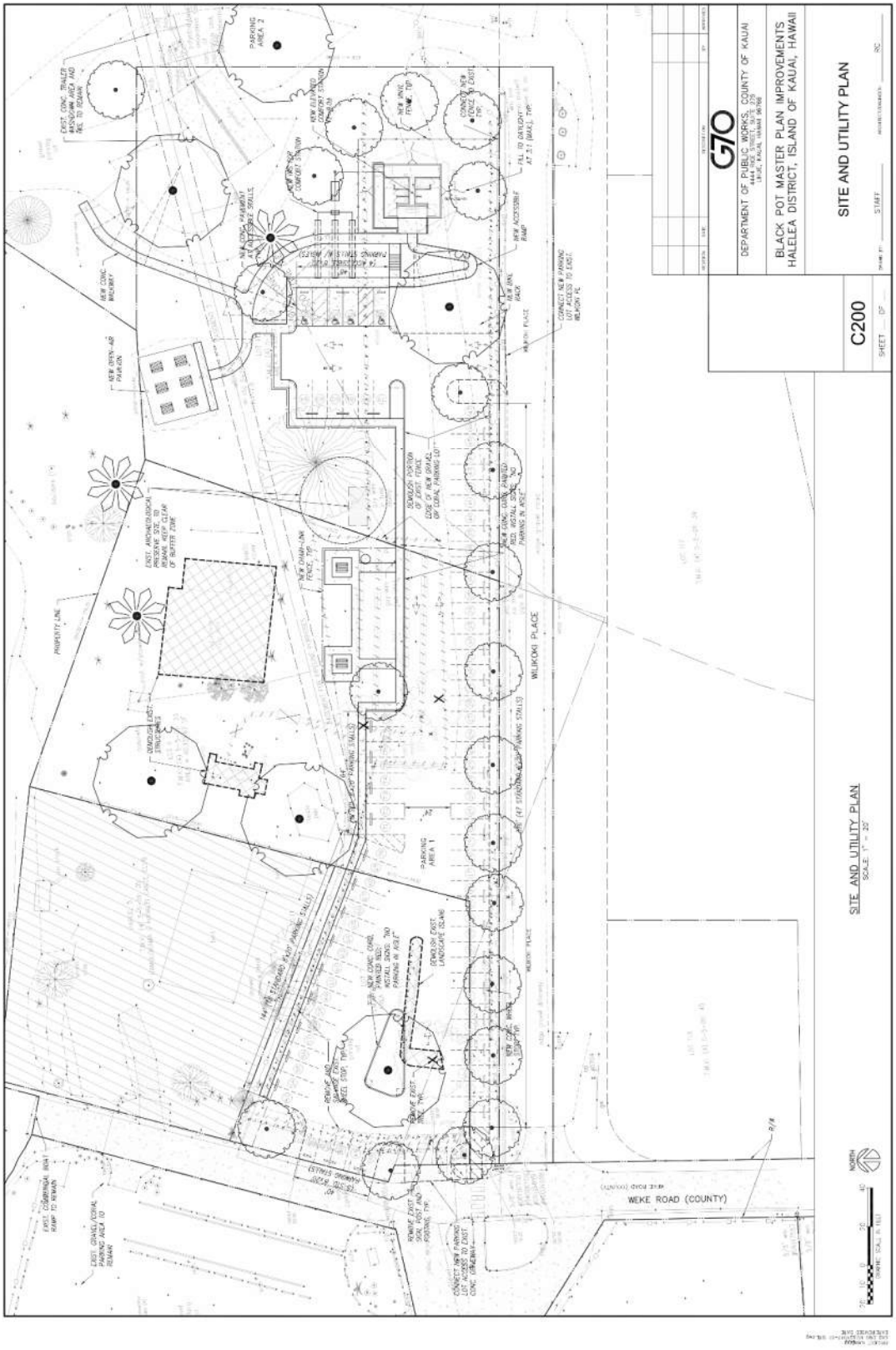

SITE AND UTILITY PLAN
C200
DEPARTMENT OF PUBLIC WORKS, COUNTY OF KAUAI
BLACK POT MASTER PLAN IMPROVEMENTS
HALELEA DISTRICT, ISLAND OF KAUAI, HAWAII
WILIKOKI PLACE
WEKE ROAD (COUNTY)
PARKING AREA 1
PARKING AREA 2
NEW RESTROOM COMFORT STATION
NEW OPEN-AIR PAVILION
NEW CONC WALKWAY
NEW ACCESSIBLE RAMP
NEW DRIVEWAY
NEW CONC PARKING STALLS
NEW CONC CURB
NEW CONC SIDEWALK
NEW CONC RAMP
NEW CONC STAIRS
NEW CHAIN-LINK FENCE
NEW CONC CURB PAINTED YELLOW
NEW CONC CURB PAINTED WHITE
NEW CONC CURB RAMP
NEW CONC CURB RAMP W/ DETECTABLE WARNING
NEW CONC CURB RAMP W/ DETECTABLE WARNING AT ACCESS AISLE
NEW CONC CURB RAMP W/ DETECTABLE WARNING AT PARKING STALL
NEW CONC CURB RAMP W/ DETECTABLE WARNING AT ACCESS AISLE

Figure 7 – Site and Utility 2

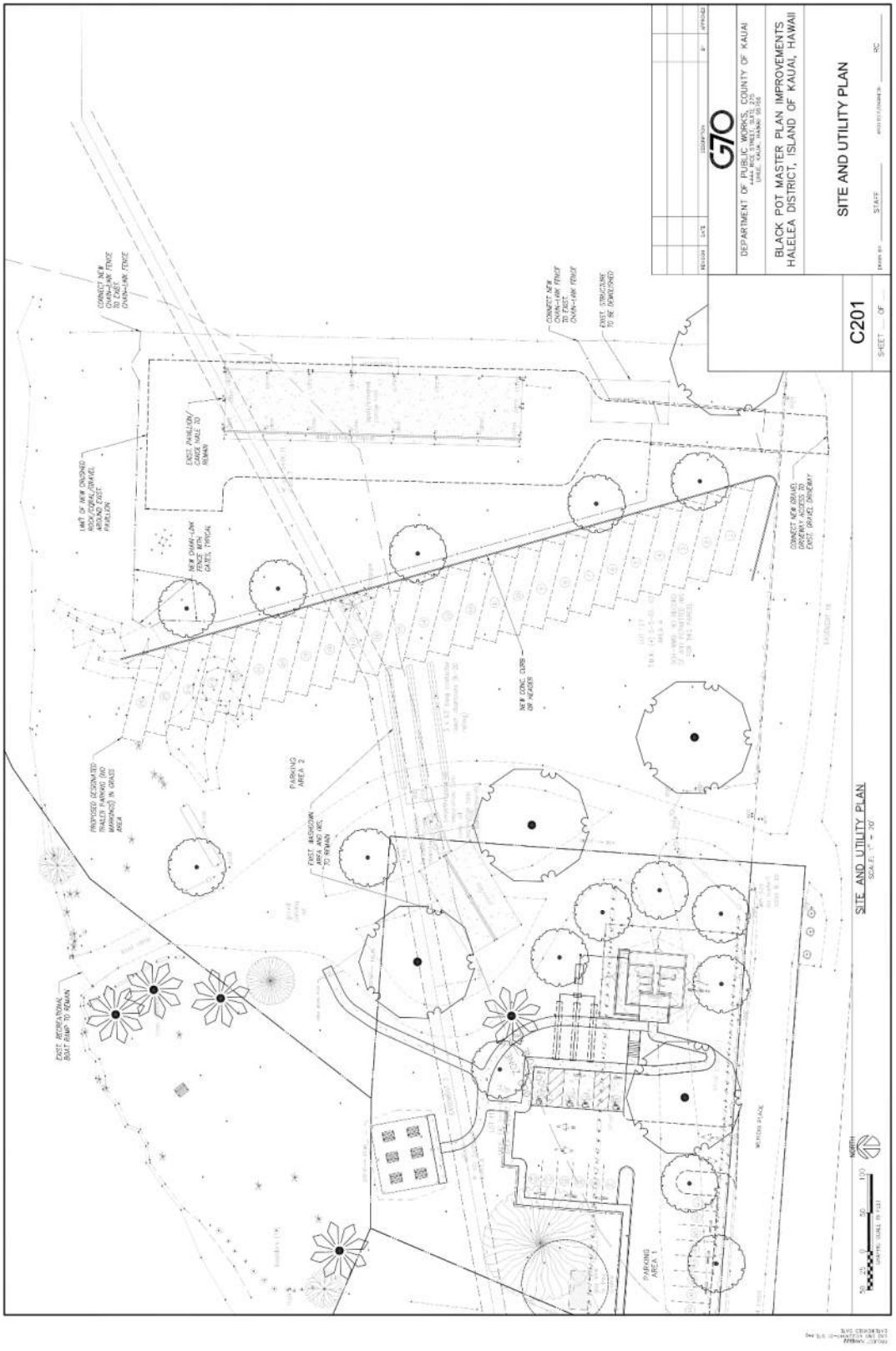
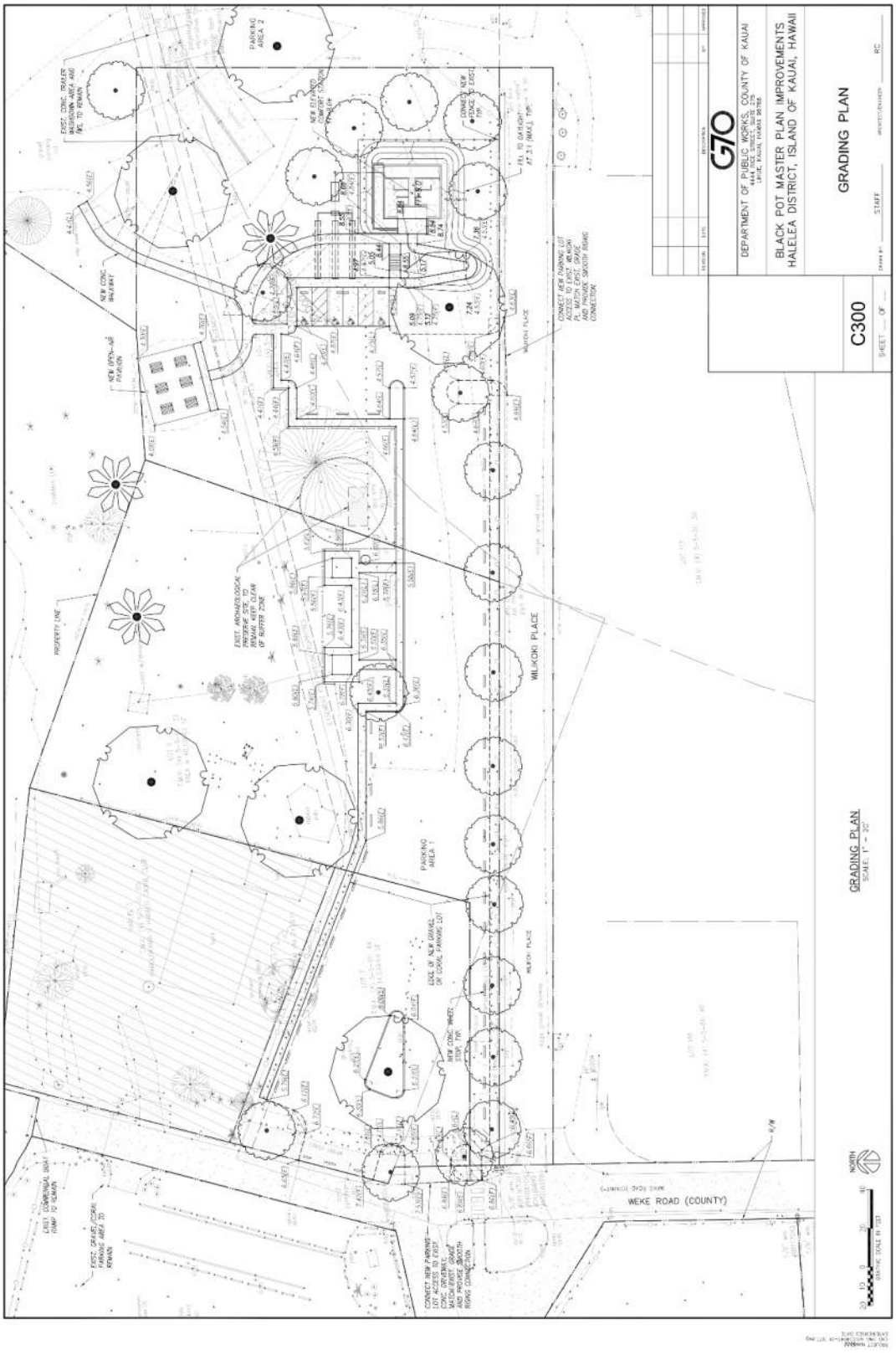


Figure 8 – Conceptual Grading Plan



APPENDIX A

Geotechnical Investigation Report

REPORT
GEOTECHNICAL INVESTIGATION

COMFORT STATION RECONSTRUCTION
BLACK POT BEACH PARK
HANALEI, KAUAI, HAWAII
TMK: (4) (4) 5-5-001: 002,004, 005, por. 008, 011, 033, 034, 049

for

GROUP 70 INTERNATIONAL, INC.
(dba GROUP 70)

Project No. 24-0043
January 25, 2025

SHINSATO ENGINEERING, INC.
98-747 KUAHAO PLACE, #E
PEARL CITY, HI 96782

SHINSATO ENGINEERING, INC.

CONSULTING GEOTECHNICAL ENGINEERS

98-747 KUAHAO PLACE, SUITE E
PEARL CITY, HAWAII 96782
PHONE: (808) 487-7855
FAX: (808) 487-7854

January 25, 2025
Project No. 24-0043

Group 70 International, Inc. (dba G70)
Attention: Ryan M.K. Char, PE, LEED AP
111 S. King Street, Suite 170
Honolulu, Hawaii 96813

Gentlemen:

The attached report presents the results of a geotechnical investigation for the proposed comfort station reconstruction project at the Black Pot Beach Park in Hanalei, Kauai, Hawaii.

A summary of the findings is as follows:

1) The subsurface conditions at the site were explored by drilling 16 test borings to depths of 5 to 40 feet below the existing grade. In general, the borings disclosed the site to be underlain by loose to medium dense, calcareous SAND with fines to the final depths of the borings. Medium stiff to stiff, brown SILT was encountered in the upper layers at Borings 2, 7, 15 and 16.

   Groundwater was encountered in the borings (except Borings 4 and 9) at about 1.83 to 4.33 feet below the existing grade at the time of the field investigation.

2) Based on the findings and observations of this investigation, it is concluded that from a geotechnical perspective, the site may be developed for the intended use provided the recommendations contained in this report are included in the design and construction of the project.

3) Special considerations will be required in the design and construction of the project due to existing site conditions. These include but may not be limited to the following:

   a) Groundwater was encountered at approximately 1.83 to 4.33 feet below existing grade. The groundwater level may fluctuate with the tide and rainfall. Excavations into the underlying soils, especially at or near the groundwater level are subject to caving. Trenching and other excavations should be done with care in accordance with applicable OSHA standards.

   b) According to the City and County of Honolulu FEMA Flood Insurance Rate Map (FIRM), the subject property is located in 'Zone VE'. Foundation embedment depth should be designed to account for the protection of the footing from scour. New foundations should be designed in accordance with the Kauai County Code Section 15, Article 1, Floodplain Management. An excerpt from the Revised Ordinances of Honolulu (ROH) Chapter 16, Article 11 is included in the Appendix to this report and may be used to estimate the anticipated depth of scour. The recommended soil description to design the foundations for scour is "loose sand".

   c) All fill material to be used in structural and non-structural areas shall consist of the existing on-site sand, crushed coral or other imported granular material.

Details of the findings and recommendations are presented in the attached report.

This investigation was made in accordance with generally accepted engineering procedures and included such field and laboratory tests considered necessary for the project. In the opinion of the undersigned, the accompanying report has been substantiated by mathematical data in conformity with generally accepted engineering principles and presents fairly the design information requested by your organization. No other warranty is either expressed or given.

Respectfully submitted,

SHINSATO ENGINEERING, INC.

Lawrence S. Shinsato, P.E.
President

LSS:ls



This work was prepared by me
or under my supervision.
License Expires 04/30/26

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APPENDIX
Field Investigation
Laboratory Testing

ATTACHMENTS

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Plot Plan	Plate A-2
Logs of Test Borings	Plates B-0 through B-16
Results of Laboratory Tests	Plates L-1 through L-5
Excerpts Flood Hazard Assessment Report ROH, Chapter 16, Article 11	

REPORT
GEOTECHNICAL INVESTIGATION
BLACK POT COMFORT STATION RECONSTRUCTION
BLACK POT BEACH PARK
HANALEI, KAUAI, HAWAII
TMK: (4) 5-5-001: 002,004, 005, por. 008, 011, 033, 034, 049

1.0 INTRODUCTION

This investigation was made for the purpose of obtaining information on the subsurface conditions from which to base recommendations for geotechnical site development related improvements and foundation design for the proposed comfort station reconstruction project at the Black Pot Beach Park in Hanalei, Kauai, Hawaii. The location of the site, relative to the existing streets and landmarks, is shown on the Vicinity Map, Plate A-1.

2.0 SCOPE OF WORK

The services included:

- Drilling 16 test borings to depths of 5 to 40 feet below grade.
- Obtaining samples of the underlying soils.
- Performing four (4) field percolation tests to determine the soil percolation rates.
- Backfilling of the borings upon completion of the field work.
- Performing laboratory tests to determine pertinent engineering properties of the representative soil samples.
- Performing an engineering analysis to determine foundation design parameters including site preparation and grading recommendations.

The following information is provided for use by the Architect and/or Engineer:

1) General subsurface conditions, as disclosed by the test borings.
2) Physical characteristics of the soils encountered in the explorations.
3) Recommendations for foundation design, including bearing values, embedment depth and estimated settlement.
4) Soil percolation rates.

5) Recommendations for site grading including placement of fill and backfill.

6) Special design considerations.

3.0 PLANNED DEVELOPMENT

The planned development will generally include (but may not be limited) to the following:

- A new comfort station (County prototypical design – medium size) and set of pavilions. Flood proofing, anchoring, and protection is required per code, as the structures are located in the floodway.
- New outdoor shower structure near the mauka comfort station.
- New parking lot and internal road (mauka). Use of porous paving such as geopave.
- Rehabilitate existing concrete boat ramps (mauka and makai).
- Park landscaping and lighting, fencing, gates, tables and furniture, small pavilions for picnic tables, park signage.
- Low height retaining walls as needed for possible building up for the comfort station and pavilions.
- New boat trailer parking – concrete pads.
- Possible reuse of leach fields for wastewater disposal.
- Investigation of the boat ramps including test borings to determine subsurface conditions for foundation design including possible bearing capacities for deep foundations including micropiles.

4.0 SITE CONDITIONS

4.1 Surface

The Black Pot Beach Park is located on the northern end of Weke Road in Hanalei, Kauai, Hawaii. At the time of the field investigation, the site had been regraded (infilled) to the approximate ground elevations that existed prior to the April 2018 storm event. Portions of Weke Road that approaches the park was in disrepair.

The ground surface over the site was relatively flat and covered with soil and grass. There are two boat ramps on the Hanalei River side of the park. The ramps are being used but the surface was in slight disrepair.

4.2 Subsurface

The subsurface conditions at the site were explored by drilling 16 test borings to the depths of 5 to 40 feet below the existing grade. The locations of the test borings are shown on the Plot Plan, Plate A-2. Detailed logs of the borings are presented on the Log of Borings, Plates B-1 through B-16. A summary log of the borings is presented on Plate B-0.

In general, the borings disclosed the site to be underlain by loose to medium dense, calcareous SAND with fines to the final depths of the borings. Medium stiff to stiff, brown SILT was encountered in the upper layers at Borings 2, 7, 15 and 16.

Groundwater was encountered in the borings (except Borings 4 and 9) at about 1.83 to 4.33 feet below the existing grade at the time of the field investigation.

4.3 Generalized Soil Conditions and Geology

4.3.1 General Soil Description

From the USDA Soil Conservation Service "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii," the site is located in an area designated as Mokuleia fine sandy loam (Mr). This series consists of well-drained soils along the coastal plains on the islands of Oahu and Kauai. These soils developed in recent alluvium deposited over coral sand. *This soil has a profile like that of Mokuleia clay loam (Mt), except for the texture of the surface layer.* On this soil, permeability is moderately rapid in the surface layer and rapid in the subsoil. Runoff is very slow, and the erosion hazard is slight (USDA, 1972, pg. 95, Plate 16).

4.3.2 Geology

The site is located in Hanalei, Kauai, Hawaii which is on the northern side of Kauai. The island of Kauai consists of single shield volcano which is deeply eroded and partially veneered with much later volcanics. The formation of the island above sea level is believed to have begun in late Tertiary time (between 1 and 12 million years ago). Lavas erupted through radial fissures and along an ENE-WSW rift zone. As the volcano developed, the summit began to collapse to form the Olokele caldera. During a period of quiescence, soils formed and streams cut canyons into the shield. In the late Pliocene (about 1.4 million years ago), eruptions from the Koloa Volcanic Series began to pour down canyon walls, displace streams and veneer sea cliffs (Stearns, 1966).

During various stands of the ocean, fringing coral reefs developed around the islands to form coastal plains and beaches such as Hanalei. The changes in ocean level also contributed to the drowning and alluviation of the great valley floors.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 General

Based on the findings and observations of this investigation, it is concluded that from a geotechnical perspective, the site may be developed for the intended use provided the recommendations contained in this report are included in the design and construction of the project.

5.2 Special Considerations

Special considerations will be required in the design and construction of the project due to the existing soil conditions. These include but may not be limited to the following:

a) Groundwater was encountered at approximately 1.83 to 4.33 feet below existing grade. The groundwater level may fluctuate with the tide and rainfall.

b) Excavations into the underlying soils, especially at or near the groundwater level are subject to caving. Trenching and other excavations should be done with care in accordance with applicable OSHA standards.

c) According to the FEMA Flood Insurance Rate Map (FIRM), the subject property is located in 'Zone VE'. Foundation embedment depth should be designed to account for the protection of the footing from scour. New foundations should be designed in accordance with the Kauai County Code Section 15, Article 1, Floodplain Management. An excerpt from the Revised Ordinances of Honolulu (ROH) Chapter 16, Article 11 is included in the Appendix to this report and may be used to estimate the anticipated depth of scour. The recommended soil description to design the foundations for scour is "loose sand".

d) All fill material to be used in structural and non-structural areas shall consist of the existing on-site sand, crushed coral or other imported granular material.

e) The site is underlain by loose granular soils. A liquefaction analysis indicates that there is a potential for ground settlement on the order of 7.4 inches based on the past historical earth magnitudes. Special foundation design and construction may be required to minimize the damage to structures and infrastructures due to earthquakes. This may include shallow foundations that are tied together, mat type foundations, or deep foundations.

5.3 Foundations

The proposed comfort station shall be constructed in general accordance with the requirements stated in the Kauai County Code pertaining to Floodplain Management.

Shallow foundations may require additional embedment depth for protection against scour and from seismic

events. Where the footing embedment depths become excessive, deep foundations such as caissons or micropiles may be used to support structures.

5.3.1 Spread and Continuous Footings

a) An allowable bearing value of 2,000 pounds per square foot may be used for footings that bear on either firm on-site soil and/or on properly compacted structural fill. The bearing value is for dead plus live loads and may be increased by one-third (1/3) for momentary loads due to wind or seismic forces. If any footing is eccentrically loaded, the maximum edge pressure shall not exceed the bearing pressure for permanent or for momentary loads.

b) The minimum footing embedment depth shall be as follows:

i) For footings constructed on relatively level ground: minimum 12 inches below the lowest adjacent finished grade (measured to the bottom of the footing). Additional footing embedment may be required for the protection from scour.

ii) For footings located adjacent to utility trenches: the bottom of the footing shall be deepened below a 1 horizontal to 1 vertical plane projected upwards from the edge of the utility trench.

iii) For footings located adjacent to retaining walls or other structural elements which are not designed for surcharge loading, the new footing shall be deepened below a 45-degree plane projected upwards from the adjacent structure.

iv) All loose and disturbed soil at the bottom of footing excavations shall be removed to firm soil or the disturbed soil shall be compacted prior to laying of steel or pouring of concrete.

c) Under the fully applied recommended bearing pressure of 2,000 psf, it is estimated that the total settlement of footings up to 3 feet square or 2 feet continuous due to static loading that bear on firm on-site soils and properly compacted fill is estimated to be on the order of 3/4-inch. The settlement may be assumed to increase or decrease in proportion to the increase or decrease in applied bearing pressure and footing width.

5.3.2 Mat Foundation

A mat foundation may consist of a uniform flat-plate, flat plate thickened under columns, or a slab with thickened beams under columns.

For the design of a mat foundation system, the recommended design parameters are as follows:

a) Rigid Mat:

- Net allowable soil pressure = 2 ksf; this assumes settlement on the order of 2-inches.
- Under a uniformly applied bearing pressure of 500 psf, the settlement of a rigid mat foundation is estimated to be less than 1/2-inch.

b) Flexible Mat:

- Coefficient of Subgrade Reaction:

  k_{v1} = 45 pci for a 1'x1' plate
- For a mat foundation of width B, the coefficient of subgrade reaction (k_b) for the mat may be determined by the following equation:

$$k_b = k_{V1}\left(\frac{B+1}{2B}\right)^2$$

5.3.3 Deep Foundations

Where shallow footings are not feasible, deep foundations such as caissons or micropiles may be used to support the structure.

a) Caissons, ACIP Piles and Cased Micropiles

i) Caissons are cast in-place concrete piles that are installed by drilling a hole to the design depth, installing reinforcing steel, and then pouring concrete into the hole. They typically range from 1.5 to as much as 12 feet in diameter. Where caving soils are encountered, temporary steel casing is used to construct the caisson.

ii) ACIP (Auger Cast in Place Piles) are installed by drilling a hole using a hollow-stem auger that is typically 18 or 24 inches in diameter. The augers are advanced to the specified depth and concrete is then pumped into the hollow-stem. The auger is then retracted leaving the concrete in-place. Reinforcing steel is then placed into the upper section of the concrete to provide for structural bending capacity of the pile. No casing is required for installation.

iii) Design Parameters

The recommended design parameters for these deep foundation are as follows:

- Axial load capacity:
  - Allowable end-bearing: 4,000 psf for piles installed a minimum of 20 feet below the finished grade.
  - Allowable skin-friction: 500 pounds per square foot (psf) of sidewall area for skin-friction in the upper 20 feet. 2,000 psf of sidewall contact area below 20 feet.
- Uplift capacity: Weight of pile plus 0.67 times the sidewall friction.
- Pile Spacing: The spacing between piles (center to center) should be a minimum of 3 pile diameters. If closer spacing is necessary, a group efficiency factor

should be applied to the pile cluster.

- Settlement: Under the fully applied design load settlement is estimated to be less than 1/2 inch.

- Lateral load capacity: The constant of horizontal subgrade reaction may be assumed as 4 tons per cubic foot per foot of embedment depth.

  For laterally loaded pile groups, a reduction in the lateral load capacity may be required. The reduction may apply where:

- Group Efficiency Factors for Laterally Loaded Piles in Parallel Alignment:

Pile Center to center Spacing	Efficiency Factor for Laterally Loaded Pile Groups
8*B	100%
6*B	75%
4*B	55%
3*B	40%

The efficiency factors should be applied to both lateral pile head forces and moments. B = pile diameter

- Pile Load Testing

It is recommended that at least one (1) load test be conducted to verify the bearing capacity of the piles. The testing should be performed on a sacrificial pile in compression to 200 percent of the design load in general conformance with ASTM D1143 test procedure. Upon completion of the load test program, the information should be reviewed to determine possible modification to the pile capacities and installation criteria.

iv) Special Considerations for Caisson and Cased Micropile Foundations

- Due to the presence of groundwater, casing for caisson installation may be needed to keep the hole open, and tremie concrete will be needed for the concrete pour.
- Disposal of spoils (soil cuttings) and the displacement of groundwater during the installation of these piles will need to be considered.
- For lateral resistance, neglect soil that may be susceptible to scouring due to flood conditions.

b) Injection-Bored Micropiles

Injection-bored micropiles consist of a continuously threaded, hollow reinforcing rod with a grout body. The grout body provides the frictional resistance, corrosion protection and stiffness against buckling. The inner steel rod acts as the load carrying member. The micropile is installed by drilling the steel rod into the soil with a larger diameter drill bit. The rod is drilled using a rotary percussive drill rig and grout fluid that provides the grout body around the steel rod.

- Allowable Bearing Capacity

  Using a 3-inch (75 mm) diameter drill bit, the allowable bearing capacity (from skin friction) maybe assumed as 500 pounds per foot of embedment. If other sizes of drill bits are used, the allowable bearing capacity from skin-friction may be assumed to increase or decrease in proportion to the increase or decrease in the bit diameter.

  The recommended maximum allowable structural capacity for various bar sizes typically available in Hawaii are as follows:

Titan 30/11	40 kips
Titan 40/16	80 kips
MAI R25N	30 kips
MAI R32N	50 kips

The minimum compressive strength of the grout shall be 4,000 psi.

- Uplift Capacity

  For uplift or pull-out capacity, the above values shall be reduced by one-third (1/3). The upper 3-feet of embedment below the pile cap shall be neglected in designing the micropile.

- Lateral Load Capacity

  Micropiles have limited lateral capacity. If lateral resistance is required, battered micropiles may be used in either tension or compression. The lateral bearing shall be based on the horizontal component of the batter.

- Corrosion Protection

  For corrosion protection in soil, the recommended minimum grout cover around the rod is 20 mm. In addition, corrosion protection may be obtained by using galvanized bars.

- Micropile Spacing

  The minimum spacing between micropiles should be a minimum of 3 pile diameters. If closer spacing is necessary, a group efficiency factor should be applied to the pile cluster.

- Proof Load Test

  A proof test is recommended when the allowable design load capacity exceeds 20 kips. Proof test loading shall be made in tension in accordance with the ASTM D3689, except as modified herein. The loading shall be incrementally applied in tension in accordance with the following schedule:

5.4 Site Class Definition

In accordance with the 2018 International Building Code, the site class and soil profile name may be assumed as D: stiff soil profile.

5.5 Lateral Earth Coefficients

The ultimate values for the lateral earth coefficients and frictional resistance may be assumed as follows:

Material	Unit Weight		Passive Coefficient (Kp)	Active Coefficient (Ka)	At-rest Coefficient (Ko)	Coefficient of friction
	Moist (pcf)	Submerged (pcf)				
on-site sandy soils	100	50	3.00	0.30	0.45	0.70

Lateral resistance and friction may be combined.

5.6 Slab-on-Grade

No expansive type soils were encountered during this investigation. Conventional slab-on-grade construction may be used. The design of the floor slab should also consider the possibility of scour along the slab edge and also beneath the slab.

Concrete floor slabs that have moisture sensitive floor covering should be constructed with a vapor retarder and a capillary moisture barrier that consists of a minimum of 4 inches of clean gravel cushion material such as #3 fine gravel (ASTM Designation No. 67).

For design of slabs, a modulus of subgrade reaction of 50 pci may be used for the on-site sandy soil and 150 pci for properly compacted structural fill.

Preparation of the subgrade shall be in accordance with the Site Preparation and Grading section to this report.

5.7 Pavement Design

For design of pavement areas, the recommended pavement sections are as follows:

Traffic Load	Flexible Pavement			Rigid Pavement	
	A.C	Base	Subbase	PCC	Base
Vehicles 10,000 lbs. GVW or less	2"	6"	0	5"	4"
Over 10,000 lbs. GVW	3"	6"	6"	6"	6"

The top 6 inches of pavement subgrade, subbase, and base course gravel shall be compacted to at least 95 percent of the maximum dry density (ASTM D1557). All material quality for the pavement sections shall be in accordance with the Hawaii Standard Specifications for Road and Bridge Construction, dated 2005.

5.8 Percolation Testing

Four (4) falling head percolation tests were performed to determine the percolation/infiltration rates of the onsite soils. The falling head percolation tests were performed in general accordance with the procedures detailed in the Hawaii Administrative Rules 11-62 Appendix C. The Porchet Method was used to estimate the infiltration rate based on the results of the falling head percolation tests.

The results of the tests are as follows:

Percolation Test No.	Test Depth (inch)	Percolation Rate (min/inch)	Infiltration Rate (inch/hour)	Soil Description
P-1	24	10.0	1.09	silty GRAVEL
P-2	22	20.0	0.48	silty SAND
P-3	4.0	0.33	45.00	silty SAND
P-4	4.0	0.98	15.25	silty SAND

See the attached Site Evaluation Percolation Test Plates P-1 through P-4 for details of the percolation tests.

5.9 Site Preparation and Grading

It is recommended that the site be prepared in the following manner:

a) Clearing and Grubbing:

In all areas to receive fill and in structural areas, all vegetation, brush, roots, stumps, rubbish, debris, soft soil and other deleterious material shall be removed and disposed of off-site.

b) Preparation of Ground to Receive Fill:

The exposed surface shall then be scarified to a depth of 6 inches, moisture conditioned to near optimum moisture (ASTM D1557) and then compacted to the degree of compaction specified below. If soft or loose spots are encountered, these soils shall be removed to firm material and the resulting depression shall be filled with properly compacted fill.

c) Types of Fill and Backfill Material:

Structural fill and backfill shall be described as material placed beneath buildings and extending a horizontal distance of 3 feet beyond the edge of the building line. Non-structural fill shall be described as material placed beyond 3 feet from the building line.

d) Material Quality:

Fill and backfill material shall consist of on-site sand or imported granular soil which is free of organics and debris. The maximum size particle size shall be as follows:

Structural Fill	
Top 2 feet below finished subgrade (FSG)	3"
Below 2 feet from FSG	6"
Non-structural fill and Pavement areas	
Top 2 feet from FSG	3"
2 to 6 feet from FSG	6"
Below 6 feet from FSG	12"

e) Placement of Fill and Backfill:

Each layer of fill and backfill material shall be placed in lifts not exceeding the following (loose thickness):

Structural Fill (including pavement areas)	
Top 2 feet below finished subgrade (FSG)	8"
Below 2 feet from FSG	12"
Non-structural fill	
Top 6 feet from FSG	12"
Below 6 feet from FSG	*

*The loose thickness of this layer shall not exceed 1.5 times the largest size particle; this is predicated upon proper compaction of each lift.

Prior to placing of fill and backfill material, the material shall be aerated or moistened to near optimum moisture content (ASTM D1557 test procedure). Where fill is placed on existing ground that is steeper than 5 horizontal to 1 vertical, the existing ground surface shall be benched into firm soil as the fill is placed.

f) Degree of Compaction:

Each layer of fill and backfill shall be thoroughly compacted from edge to edge using conventional compaction equipment. The minimum degree of compaction for each layer (as determined by the ASTM D1557 test procedure) shall be as follows:

Structural Fill (under and 3 feet beyond the edge of buildings)	95 %
Non-structural fill	* 90 %

*Where compaction tests are not practical due to the size of the material, each layer shall be compacted by track rolling until it does not weave or creep under the weight of the track rolling equipment (D-8 dozer or larger).

It is particularly important to see that all fill and backfill soils are properly compacted in order for the design parameters to remain applicable.

g) Preparation of Footing Excavations:

Footing excavations shall be cleaned of loose material and soils disturbed by the excavation prior to placing of steel or pouring of concrete. Any soft soil encountered at the bottom of the footing excavation shall be removed to firm material. The resulting depression shall then be backfilled with properly compacted structural fill.

h) Site Drainage:

During construction, drainage shall be provided to minimize ponding of water adjacent to or on foundation and pavement areas. Ponded areas shall be drained immediately. Any subgrade soil that has become soft due to ponding shall be removed to firm material and replaced with compacted structural fill.

i) Slopes

- The maximum recommended slope gradient for cut and fill slopes is 2 horizontal to 1 vertical (2H:1V).
- Where cut and fill slopes are greater than 15-feet in vertical height, terraces or benches shall be provided at vertical height intervals of 15-feet except that where only one bench is required, it shall be at the midpoint. The terrace or bench shall be a minimum of eight feet wide and shall be provided with drainage provisions to control erosion on the slope face and bench surface.
- Exposed slopes shall be covered as soon as practical after construction to minimize erosion. Fill slopes shall be constructed by either overfilling and cutting back to compacted soil, or the slope shall be track-rolled.

6.0 INSPECTION

During the progress of construction, so as to evaluate compliance with the design concepts, specifications and recommendations contained in this report, it is recommended that qualified engineering personnel be present to observe the following operations:

1) Site preparation and grading. This includes testing and approval of the use of fill materials and periodic field density tests for soil compaction. A Final Grading Report may be required to close a grading permit.

2) Any special inspection services that may apply including the continuous monitoring of the installation and testing of deep foundations.

7.0 REMARKS

The conclusions and recommendations contained herein are based on the findings and observations made at the test boring locations. If conditions are encountered during construction which appear to differ from those disclosed by the explorations, this office shall be notified so as to consider the need for modifications.

This report has been prepared for the exclusive use of G70 and their respective client and design consultants. It shall not be used by or transferred to any other party or to another project without the consent and/or thorough review by this facility. Should the project be delayed beyond the period of one year from the date of this report, the report shall be reviewed relative to possible changed conditions.

Samples obtained in this investigation will deteriorate with time and will be unsuitable for further laboratory tests within one (1) month from the date of this report. Unless otherwise advised, the samples will be discarded at that time.

- o 0 o -

The following are included and complete this report:

APPENDIX

Field Investigation

Laboratory Testing

ATTACHMENTS

Vicinity Map ----------	Plate A-1
Plot Plan ----------	Plate A-2
Logs of Test Borings ----------	Plates B-0 through B-16
Results of Laboratory Tests ----------	Plates L-1 through L-5

Excerpts Flood Hazard Assessment Report ROH, Chapter 16, Article 11

APPENDIX

FIELD INVESTIGATION AND LABORATORY TESTING

AP.1 FIELD INVESTIGATION

Drilling

The subsurface explorations consisted of drilling test borings at the locations shown on the Plot Plan, Plate A-2. The test borings were advanced with a Badger drill rig using continuous flight augers.

The augers are 4 inch diameter continuous helical flight augers with the lead auger having a head equipped with changeable cutting teeth. Soil cuttings are brought to the surface by the continuous flights. After the bore hole is advanced to the required depth and cleaned of cuttings by additional rotation of the augers, the augers are retracted for soil sampling or in-situ testing.

Probing is done to determine soil consistency at deeper depths. The probe consists of a 2 inch diameter steel tip that is attached to AW drilling rods. The probe is driven into the underlying material with a 140 pound safety hammer falling from a height of 30 inches. The number of blows required to drive the sampler at 12 inch intervals are shown on the boring logs.

Soil Sampling

Samples of the underlying soils were obtained from the boring by driving a soil sampler into the subsurface material using a 140 pound safety hammer falling from a height of 30 inches. The sampler was driven approximately 18 inches into the soil (or until refusal is encountered) and the number of blows required to drive the sampler was recorded at 6 inch intervals. The blow count for the last 12 inches of sampling are shown on the boring log. The sampler was retracted from the bore hole and a section of the retrieved soil was placed in a close-fitting waterproof container in order to retain field conditions until completion of the laboratory tests.

Soil samples were obtained using a modified California Sampler which is a 3 inch outside diameter, 2.5 inch inside diameter steel sampler with an interior lining of one-inch long, thin brass rings, or a split spoon sampler which is a 2 inch outside diameter, 1-3/8 inch inside diameter steel sampler. Samples were then transported to the laboratory for testing.

Field Logging

During the subsurface explorations, continuous logs of the borings were kept. The logs included visual classification of the soils encountered using the Unified Soil Classification System as well as other pertinent information which were gathered during the drilling process. The final boring logs included in this report incorporates engineering analysis and results of the laboratory tests.

AP.2 LABORATORY TESTING

General

Laboratory tests are performed on various soil samples to determine their engineering properties. Descriptions of the various tests are listed below.

Unit Weight and Moisture Content

The in-situ unit weight and moisture content of the samples are used to correlate similar soils at various depths. The sample is weighed, the volume determined, and a portion of the sample is placed in the oven. After oven-drying, the sample is again weighed to determine the moisture loss. The data is used to determine the wet-density, dry-density, and moisture content.

Direct Shear

Direct shear tests are performed to determine the strength characteristics of the representative soil samples. The test consists of placing the sample into a shear box, applying a normal load and then shearing the sample at a constant rate of strain. The shearing resistance is recorded at various

stages of the test. By repeating the test with varying normal load conditions, the angle of internal friction and cohesion can be determined.

Classification Tests

The terms and symbols used to describe the soil materials are based on the Unified Soil Classification System which provides a basis for classifying soils using either visual methods or laboratory test results. Laboratory tests include sieve and hydrometer analysis for particle size distribution, and Atterberg Limits test for liquid limit, and plasticity index determination.

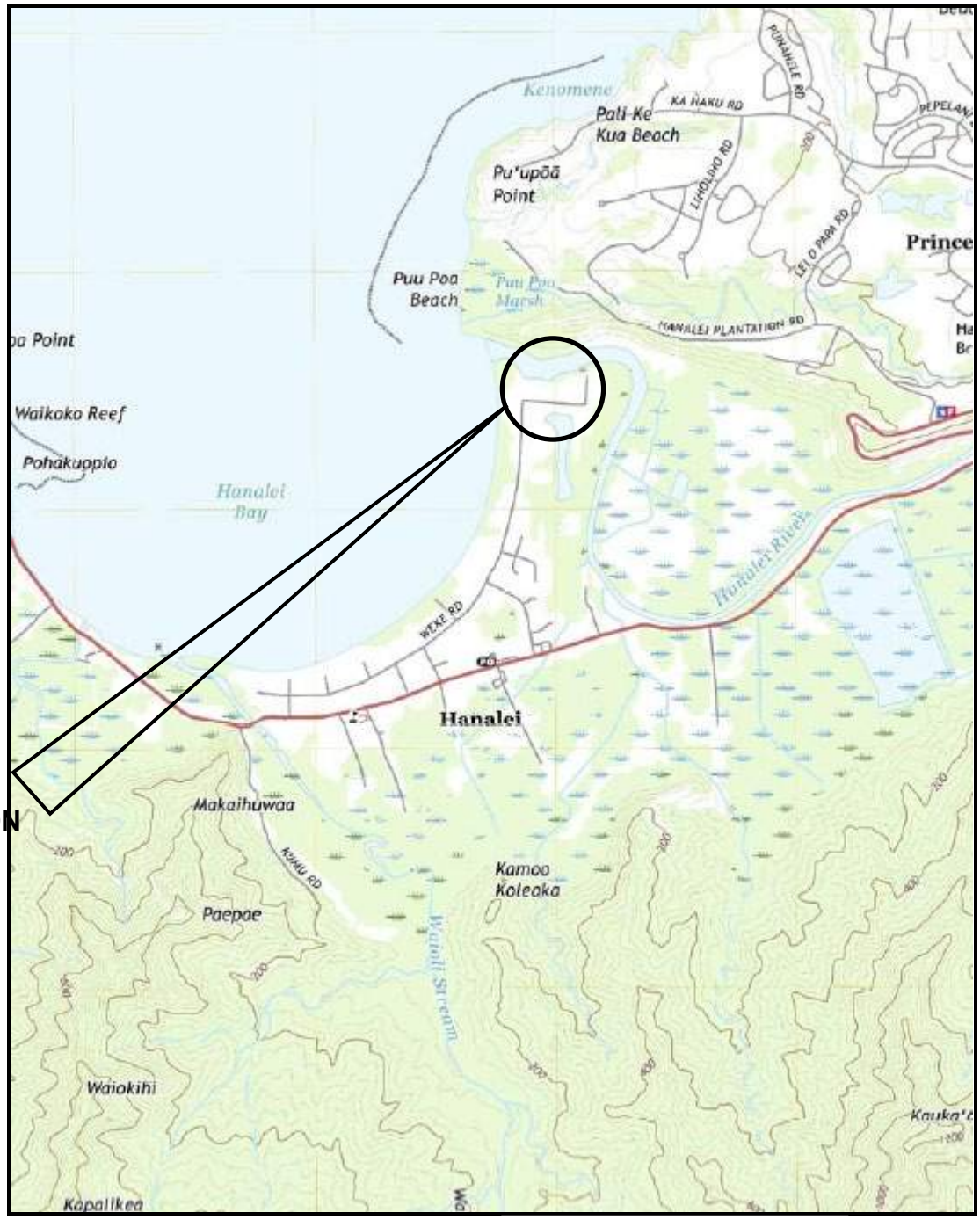
Grain-size distribution of the soil is determined by passing the soil through a series of sieves. If 50 percent or more of the soil by dry weight passes the #200 sieve, the soil is classified as fine-grained. If more than 50 percent of the soil by dry weight is retained on the #200 sieve, the soil is classified as coarse grained.

Coarse grained soils are described as follows:

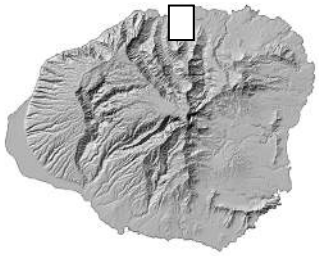
Boulder	Material retained on a 12 inch square sieve
Cobble	Material passing a 12 inch sieve but retained on a 3-inch sieve
Gravel	Material passing a 3 inch sieve but retained on a #4 sieve
Sand	Material passing a #4 sieve but retained on a #200 sieve

Fine-grained materials are silts and clays. The liquid limit and plastic limit results from an Atterberg Limits test are used to determine if the soil is a silt or clay.

VICINITY MAP



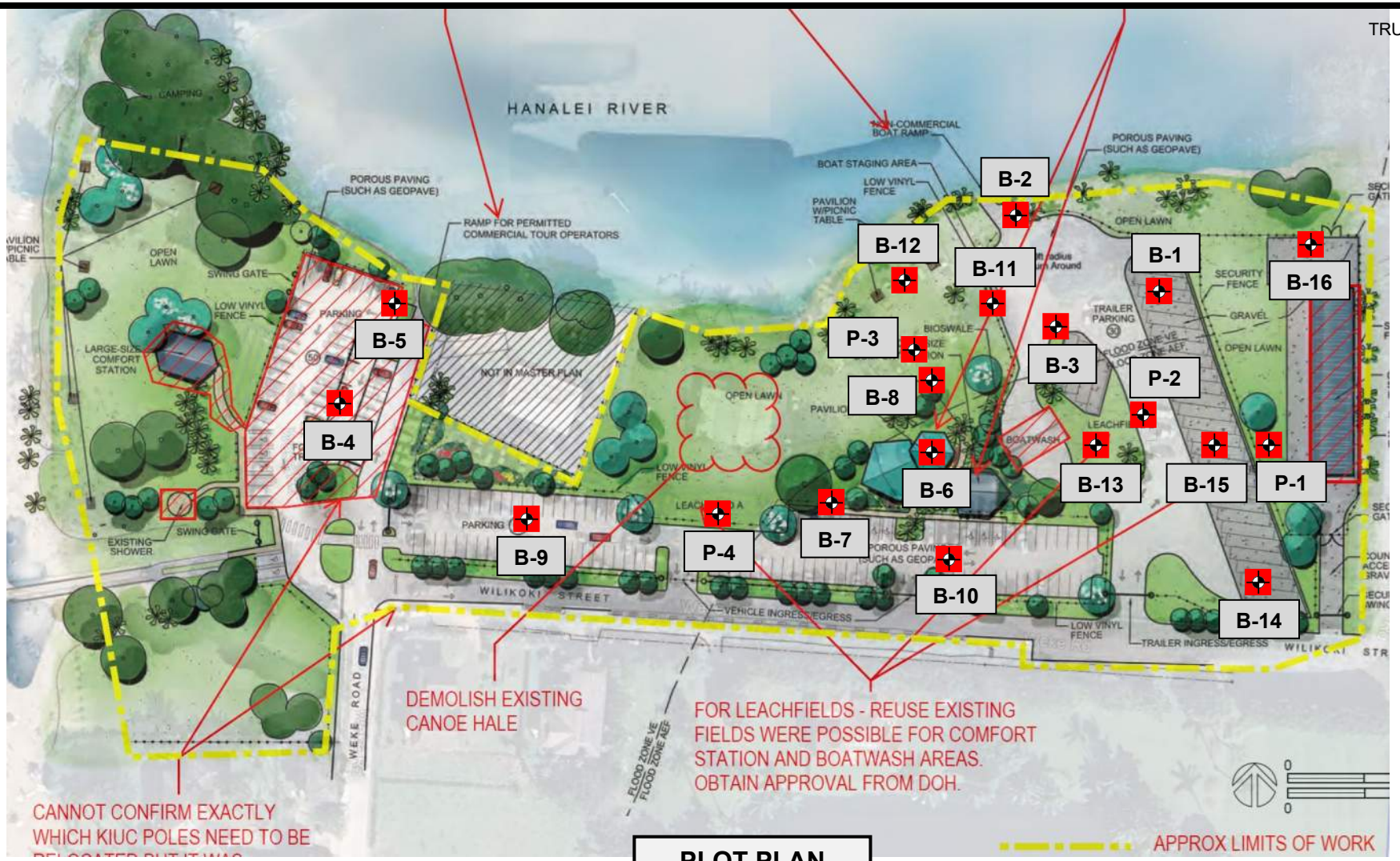
SITE LOCATION



N

REFERENCE:
USGS TOPOGRAPHIC MAP
HANALEI QUADRANGLE
DATED 2017

Project: PROPOSED COMFORT STATION BLACK POT BEACH, KAUAI Project No.: 24-0043	**SHINSATO ENGINEERING, INC.** CONSULTING GEOTECHNICAL ENGINEERS 98-747 KUAHAO PL. #E, PEARL CITY, HI 96782	**PLATE A-1**



PLOT PLAN
NOT TO SCALE

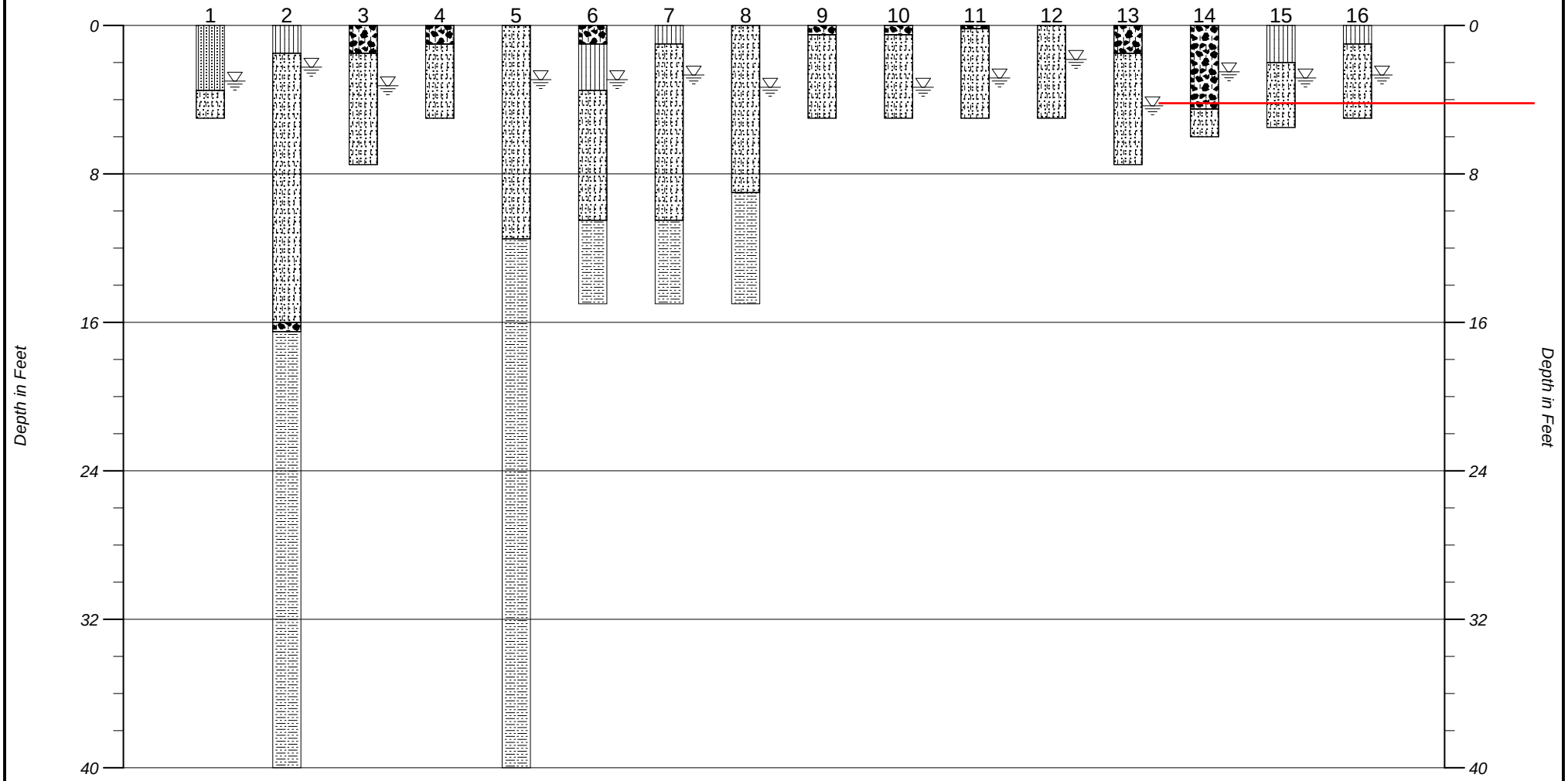
LEGEND:

⌖ - Approximate Test Boring and Percolation Test Locations

Project:	PROPOSED COMFORT STATION BLACK POT BEACH, KAUAI
Project No.:	24-0043

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PLATE A-2



Plan View

Strata symbols

- silty SAND
- poorly graded SAND with silt
- SILT
- silty GRAVEL

Probe to determine soil consistency

SHINSATO ENGINEERING, INC. GENERALIZED SOIL PROFILE		
HORIZONTAL SCALE: VERTICAL SCALE: 1"=8'	DRAWN BY/APPROVED BY	DATE DRAWN 1/25/2025
PROPOSED COMFORT STATION BLACK POT BEACH, KAUAI		
PROJECT NO. 24-0043		FIGURE NUMBER B-0

LOG OF BORING NO. 1

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **5**
DEPTH TO GROUNDWATER (FT.): **3.0'**
DATE DRILLED: **12/02/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**SM**	silty SAND (fine grain)		5	brown, tan	moist	loose	84.6	17.7		
2					8				88.8	21.4		
4		**SP-SM**	SAND (calcareous) fine grain, with fines		30	light brown		medium dense	92.7	31.8		
			END OF BORING			gray						

Project: PROPOSED COMFORT STATION
BLACK POT BEACH, KAUAI
Project No.: 24-0043

Shinsato Engineering, Inc.
Consulting Geotechnical Engineers
98-747 Kuahao Pl. #E, Pearl City, HI 96782

PLATE B-1

LOG OF BORING NO. 2

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **40**
DEPTH TO GROUNDWATER (FT.): **2.25**
DATE DRILLED: **12/02/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**ML**	sandy SILT; with roots			brown	moist	medium stiff				
2		**SP-SM**	SAND; fine grain (calcareous), with fines, few roots, trace gravel		6	light brown		loose	72.0	33.4		
4			---no roots and gravel		13	gray		medium dense	93.1	33.2		
6					5			loose				
8												
10												
12			--trace gravel and shells, fine grain		4							
14												
16		**GM**	silty GRAVEL (calcareous) with sand		5	gray		loose to very loose				
18		**(PRB)**	PROBE to determine soil consistency		1 1 1 1							
20					7			loose				
22					13 9							
24					6 7							
26					8 12			medium dense				
28					14 12							
30					12							

Project: PROPOSED COMFORT STATION
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Project No.: 24-0043

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PLATE B-2

LOG OF BORING NO. 2

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **40**
DEPTH TO GROUNDWATER (FT.): **2.25**
DATE DRILLED: **12/02/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
32					11							
					13							
					11							
34					10							
					10							
					11							
36					13							
					16							
38					12							
					12							
40			END OF BORING									
42												
44												
46												
48												
50												
52												
54												
56												
58												
60												

Project: PROPOSED COMFORT STATION
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PLATE B-2

LOG OF BORING NO. 3

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **7.5**
DEPTH TO GROUNDWATER (FT.): **3.25**
DATE DRILLED: **12/02/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**GM**	silty GRAVEL; with sand			gray	slightly moist	dense				
2		**SP-SM**	SAND (calcareous), fine grain; trace fines	■	10	light brown, tan	moist	medium dense	88.6	14.1		
4		**SP-SM**	SAND (calcareous), fine grain, trace fines	■	6			loose	93.6	28.9		
6		**SP-SM**	SAND (calcareous), some fines	■	21	gray		medium dense	95.5	28.1		
8			END OF BORING									
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

Project: PROPOSED COMFORT STATION
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PLATE B-3

LOG OF BORING NO. 4

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **5**
DEPTH TO GROUNDWATER (FT.): **NGWE**
DATE DRILLED: **12/03/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**GM**	silty GRAVEL; with sand			tan	slightly moist	medium dense				
2		**SP-SM**	SAND (calcareous), fine grain; some fines	■	11	light brown, tan	moist	loose	90.7	9.6		
4				■	11				92.1	10.5		
			END OF BORING									
6												
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

Project: PROPOSED COMFORT STATION
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PLATE B-4

LOG OF BORING NO. 5

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **40**
DEPTH TO GROUNDWATER (FT.): **2.92**
DATE DRILLED: **12/03/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**SP-SM**	SAND; (calcareous) fine grain, some fines and gravel			light brown, tan	slightly moist	medium dense				
2			--no gravel	■	6		moist ▼	loose	78.4	16.8	0.2	
4		**SP-SM**	SAND (calcareous), with fines --with roots	■	14	gray			74.7	48.6		
6			---no roots	■	25			medium dense	90.3	29.3		
8												
10												
			--medium to fine grain; trace shells	■	21					14.6		
12		**(PRB)**	PROBE to determine soil consistency		2			loose				
					8							
14					16			medium dense				
					39							
16					22							
					18							
18					26							
					16							
20					7							
					10							
22					31			dense				
					35							
24					25							
					30							
26					9			loose				
					8							
28					6							
					7							
30					6							

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PLATE B-5

LOG OF BORING NO. 5

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **40**
DEPTH TO GROUNDWATER (FT.): **2.92**
DATE DRILLED: **12/03/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
32					4							
					11			medium dense				
34					15							
					19							
36					26							
					24							
38					13			loose				
					8							
40			END OF BORING		7							
					4							
42												
44												
46												
48												
50												
52												
54												
56												
58												
60												

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PLATE B-5

LOG OF BORING NO. 6

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **15**
DEPTH TO GROUNDWATER (FT.): **2.92**
DATE DRILLED: **12/03/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**GM**	silty GRAVEL; some sand and roots			light brown	slightly moist	medium dense				
2		**ML**	SILT; trace sand and roots	■	2	brown	moist	stiff	93.2	31.0	1.9	1.7
4		**SP-SM**	SAND fine grain, with fines	■	5	brown and orange		loose	95.6	30.0		
8		**SP-SM**	SAND (calcareous); fine grain some light gray areas, with fines, some cemented pieces	■	7	gray			90.9	33.5		
10			--trace shells, no cemented pieces	■	9				104.6	26.1		
12		**(PRB)**	PROBE to determine soil consistency		5 7 3			very loose				
14					1 1							
			END OF BORING									
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-6

LOG OF BORING NO. 7

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **15**
DEPTH TO GROUNDWATER (FT.): **2.67**
DATE DRILLED: **12/03/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**ML**	SILT; with gravel and roots			brown	moist	medium stiff				
		SP-SM	SAND (calcareous), some fines	■	6	light nrown, tan		loose to medium dense	91.2	18.9		
2				■	10		▼		109.4	6.0		
		SP-SM	SAND (calcareous), with fines			gray						
4				■	9				107.8	23.3		
6								loose				
		SP-SM	SAND (calcareous), with fines	■	9				93.3	31.4		
8												
10			--fine to medium grain, some gravel	■	14				99.1	22.9		
		(PRB)	PROBE to determine soil consistency		3							
12					10							
					7							
14					6							
					3							
			END OF BORING									
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-7

LOG OF BORING NO. 8

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **15**
DEPTH TO GROUNDWATER (FT.): **3.33**
DATE DRILLED: **12/03/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**SP-SM**	SAND (calcareous); with fines			light brown, tan	moist	medium dense				
2			--possibly concrete debris at 2.5'		38 34/4"			very dense	112.2	11.6		
					46/4"		▼			3.7		
4		**SP-SM**	SAND (calcareous); with fines --broke through at 4'					medium dense				
6		**SP-SM**	SAND (calcareous), with fines and gravel			gray						
8					20				114.6	21.1		
		(PRB)	PROBE to determine soil consistency		14							
10					17							
					3			loose to very loose				
12					1							
					1							
14					1							
			END OF BORING									
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-8

LOG OF BORING NO. 9

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **5**
DEPTH TO GROUNDWATER (FT.): **NGWE**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**GM**	silty GRAVEL; with sand			gray	slightly moist	medium dense				
		SP-SM	SAND (calcareous), with fines			light brown, tan	moist					
2				■	13				90.2	9.0		
4				■	10				87.9	33.6		
			--hole caved in to 4'; unable to establish groundwater level									
6			END OF BORING									
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-9

LOG OF BORING NO. 10

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **5**
DEPTH TO GROUNDWATER (FT.): **3.33**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**GM**	silty GRAVEL; with sand			gray	moist	medium dense				
		SP-SM	SAND (calcareous), some fines			light brown, tan		loose				
2					16				90.0	18.6		
		SP-SM	SAND (calcareous) with fines			gray		loose				
4					14				98.0	26.1		
			END OF BORING									
6												
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-10

LOG OF BORING NO. 11

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **5**
DEPTH TO GROUNDWATER (FT.): **2.83**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		GM	silty GRAVEL; with sand			gray	slightly moist	medium dense				
2		SP-SM	SAND (calcareous) with fines, trace of roots	■	11	light brown, tan	▼	loose	89.3	19.9		
4		SP-SM	SAND (calcareous), some fines, fine grain	■	21	gray		medium dense	92.8	30.7		
			END OF BORING									
6												
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-11

LOG OF BORING NO. 12

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **5**
DEPTH TO GROUNDWATER (FT.): **1.83**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**SP-SM**	SAND (calcareous) with fines; fine grain with roots, trace gravel --no roots or gravel			light brown, tan	moist	medium dense				
2				■	22		▼		88.8	28.9		
4		**SP-SM**	SAND (calcareous) with fines; some brown silt areas	■	13	gray		loose	88.2	34.2		
			END OF BORING									
6												
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-12

LOG OF BORING NO. 13

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **7.5**
DEPTH TO GROUNDWATER (FT.): **4.33**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**GM**	silty GRAVEL (basaltic); with sand and roots			light brown	moist	medium dense				
2		**SP-SM**	SAND (calcareous) with fines; fine grain, trace roots		12	light brown, tan			102.7	16.5		
			--trace roots ---no roots		9				86.2	33.0		
4							▼					
6		**SP-SM**	SAND (calcareous), some fines			gray		loose				
					15				83.1	36.0		
8			END OF BORING									
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-13

LOG OF BORING NO. 14

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **6**
DEPTH TO GROUNDWATER (FT.): **2.5**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**GM**	silty GRAVEL (basaltic); with sand and roots			brown	moist	medium dense				
		GM	silty GRAVEL (calcareous), some brown seams	■	8	light brown, tan	▼	loose	107.2	23.9		
2												
4		**SP-SM**	SAND (calcareous) with fines, fine grain	■	22	gray		loose	78.9	42.2		
6			END OF BORING									
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-14

LOG OF BORING NO. 15

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknnown**
DEPTH OF BORING (FT.): **5.5**
DEPTH TO GROUNDWATER (FT.): **2.83**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**ML**	elastic SILT; with gravel, some roots			brown	moist	medium stiff				
				■	5				73.3	51.5		
2		**SP-SM**	SAND (calcareous) with fines, fine grain			light brown, tan	▼	loose				
4		**SP-SM**	SAND (calcareous); some fines, fine grain	■	20	gray		medium dense	95.0	34.2		
6			END OF BORING									
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

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PLATE B-15

LOG OF BORING NO. 16

DRILLING METHOD: **Badger Drill Rig**
HAMMER WEIGHT (lbs): **140**
HAMMER DROP (in): **30**

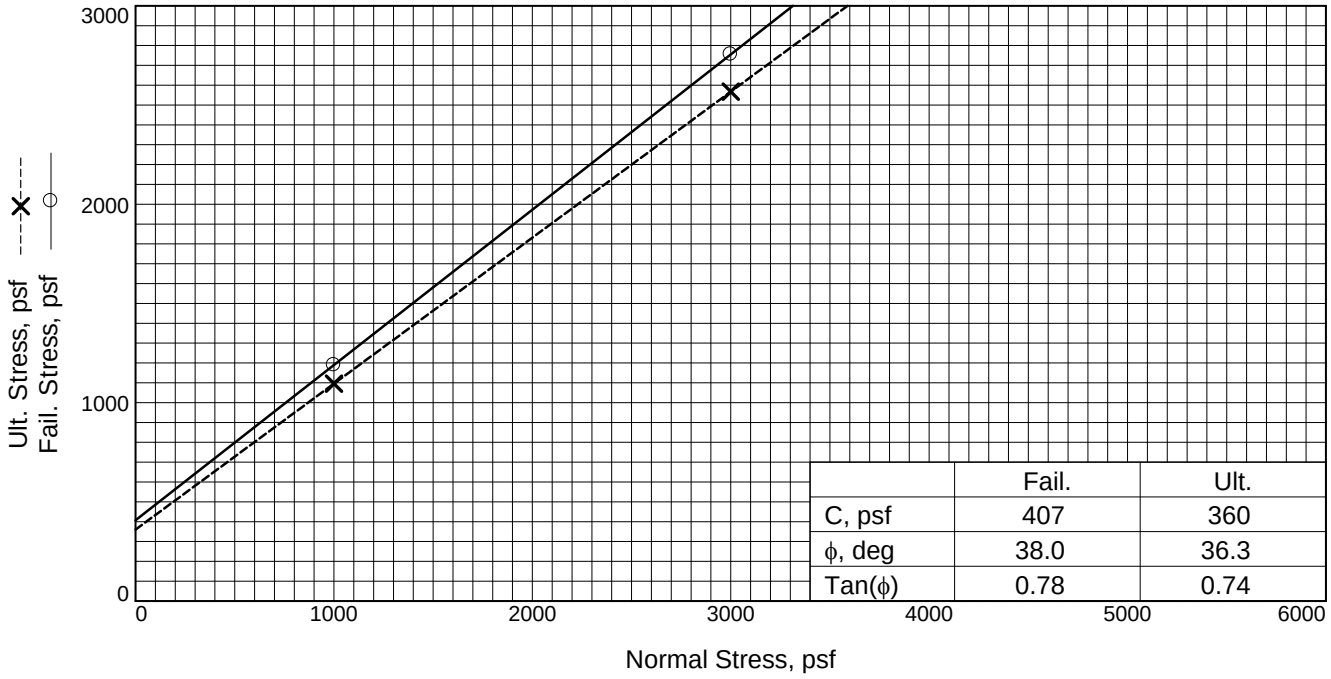
ELEVATION (FT.): **Unknown**
DEPTH OF BORING (FT.): **5**
DEPTH TO GROUNDWATER (FT.): **2.67**
DATE DRILLED: **12/04/2024**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		**ML**	elastic SILT; with gravel and roots			brown	moist	medium stiff				
2		**SP-SM**	SAND, (calcareous) with fines, fine grain	■	17	light brown, tan	▼	loose	80.6	33.6		
4		**SP-SM**	SAND (calcareous), some fines	■	14	gray			85.0	35.8		
			END OF BORING									
6												
8												
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												

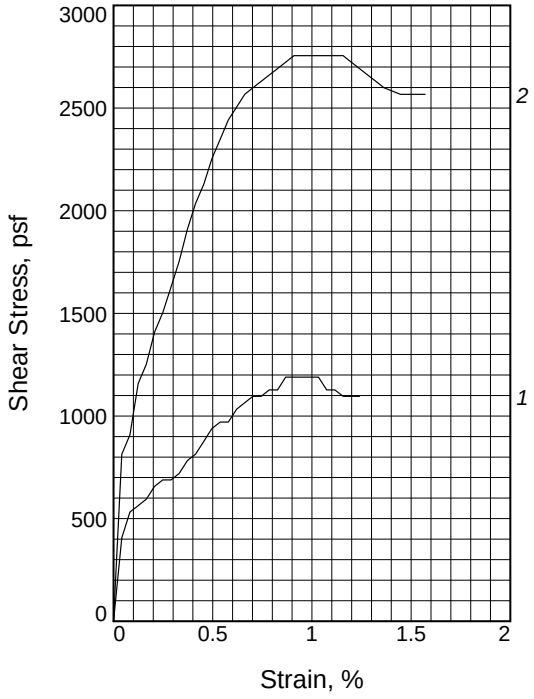
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PLATE B-16



	Fail.	Ult.
C, psf	407	360
ϕ, deg	38.0	36.3
Tan(ϕ)	0.78	0.74



	Sample No.	1	2
Initial	Water Content, %	N/A	N/A
	Dry Density, pcf	N/A	N/A
	Saturation, %	N/A	N/A
	Void Ratio	N/A	N/A
	Diameter, in.	2.42	2.42
	Height, in.	1.00	1.00
At Test	Water Content, %	N/A	N/A
	Dry Density, pcf		
	Saturation, %		
	Void Ratio		
	Diameter, in.		
	Height, in.		
Normal Stress, psf		1000	3000
Fail. Stress, psf		1190	2755
Strain, %		0.9	0.9
Ult. Stress, psf		1096	2567
Strain, %		1.2	1.4
Strain rate, in./min.		0.000	0.000

Sample Type: Ring
Description: SAND, with fines

Specific Gravity=
Remarks:

Figure L-1

Client:

Project: PROPOSED COMFORT STATION
BLACK POT BEACH, KAUAI

Source of Sample: 3 **Depth:** 3.5

Sample Number: 2

Proj. No.: 24-0043 **Date Sampled:**

DIRECT SHEAR TEST REPORT
SHINSATO ENGINEERING, INC.
Pearl City, HI

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	1.3	89.4	9.3	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	2	1	1.5	SAND; fine grain (calcarious), few roots, trace gravel	SP-SM

SHINSATO ENGINEERING, INC.

Pearl City, HI

Client:

Project: PROPOSED COMFORT STATION
BLACK POT BEACH, KAUAI

Project No.: 24-0043 **Figure** L-2

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	2.9	1.5	1.0	2.2	81.2	11.2	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	3	2	3.5	SAND, trace fines	SP-SM

SHINSATO ENGINEERING, INC.

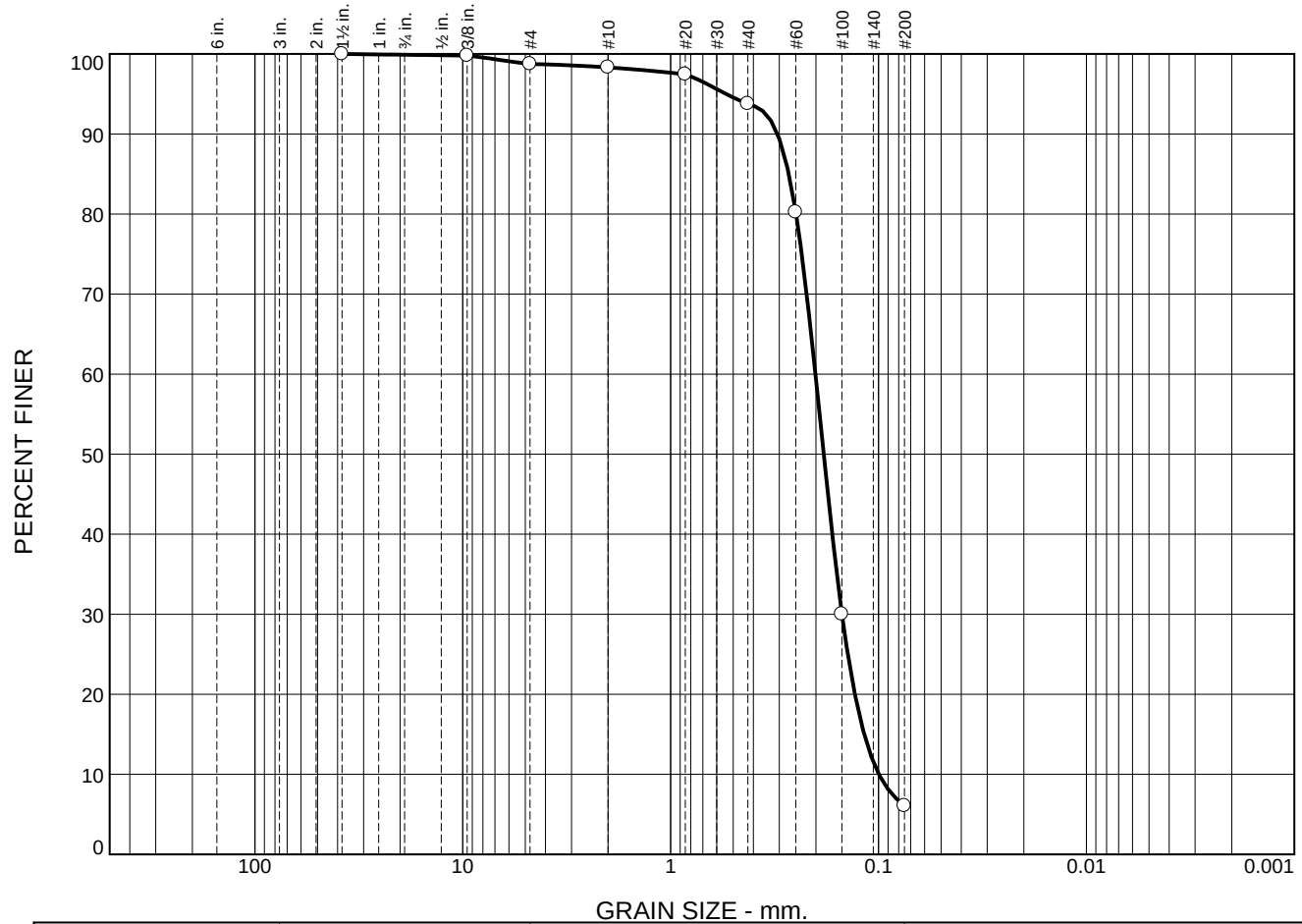
Pearl City, HI

Client:

Project: PROPOSED COMFORT STATION
BLACK POT BEACH, KAUAI

Project No.: 24-0043 **Figure** L-3

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.1	1.2	0.4	4.5	87.7	6.1	

SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	7	4	7.0	SAND (calcareous), with fines	SP-SM

SHINSATO ENGINEERING, INC.

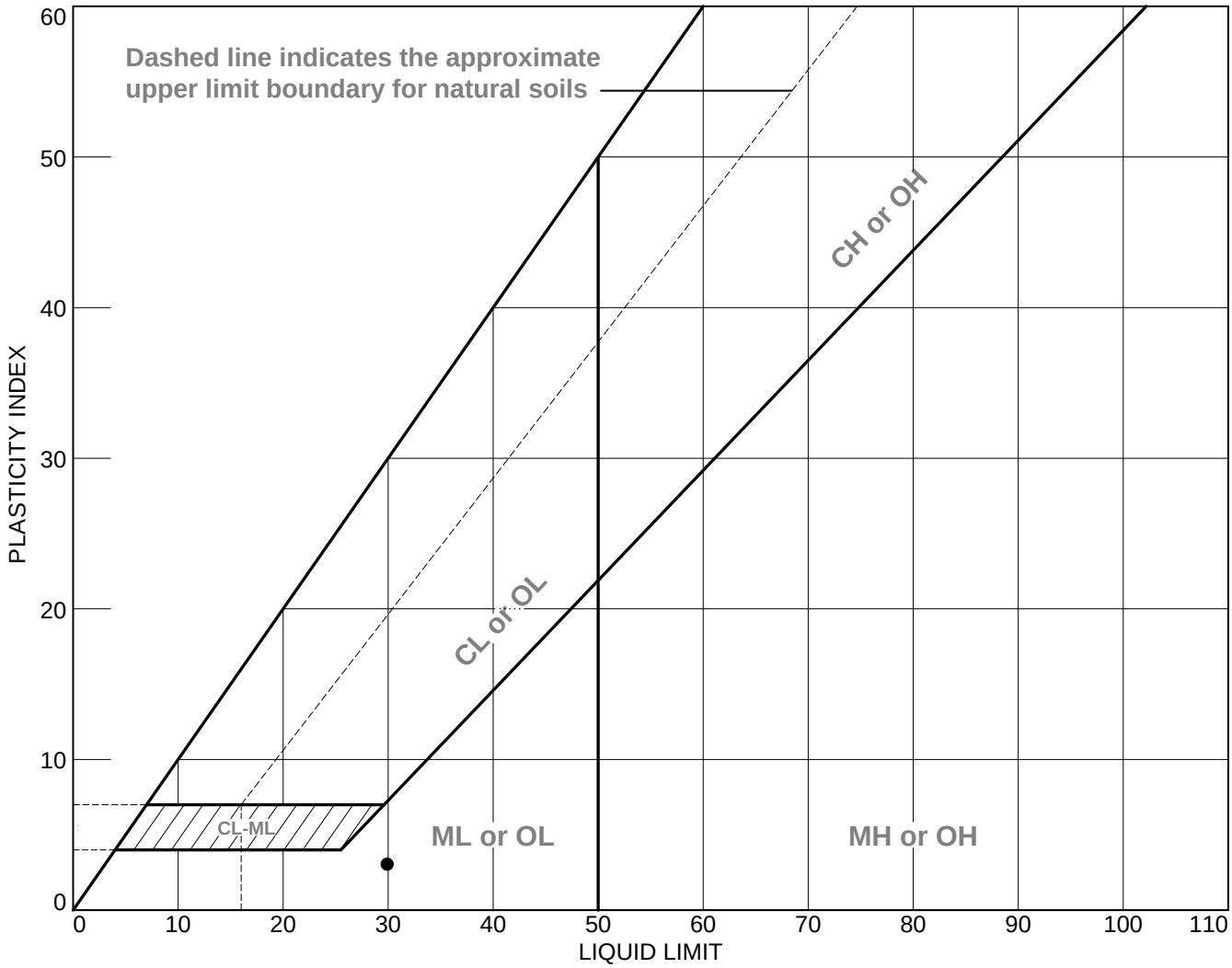
Pearl City, HI

Client:

Project: PROPOSED COMFORT STATION
BLACK POT BEACH, KAUAI

Project No.: 24-0043 **Figure** L-4

ATTERBERG LIMITS



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	6	1	1.0	31.0	27	30	3	ML

SHINSATO ENGINEERING, INC.

Pearl City, HI

Client:

Project: PROPOSED COMFORT STATION
BLACK POT BEACH, KAUAI

Project No.: 24-0043 **Figure** L-5

DEPARTMENT OF HEALTH - WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) - SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. P-1)

Date / Time: 12/05/2024; 8:45 am Test performed by: Shinsato Engineering, Inc.

Owner: County of Kauai TMK: (4) 5-5-001: 002,004, 005, por. 008, 011, 033, 034, 049

Elevation:	Unknown	feet
Depth to Groundwater Table :	+/-3'	feet below grade
Depth to Bedrock (if observed):	Not observed	feet below grade
Diameter of Hole:	4	inches
Depth to Hole Bottom:	2	feet below grade

Depth, inches below grade	Soil Profile (color, texture, other
0 - 24	brown silty GRAVEL with sand, medium dense

PERCOLATION READINGS:

Time 12 in. of water to seep away: 60 minutes

Time 12 in. of water to seep away: 68 minutes

Check one:

X Percolation tests in sandy soils, recorded time intervals and water drop s at least every 10 minutes for at least 1 hour.

Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes record time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch

Time interval (min.)	Drop in inches	Time interval (min.)	Drop in inches
30	3-1/4	30	3
30	3		
30	3-1/8		
30	3		

Percolation Rate (time/final water level drop): **10.0** minutes/inches

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Lawrence S Shinsato

Engineer's Signature/Stamp
License Expires 04/30/2026



01/21/2025
Date

DEPARTMENT OF HEALTH - WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) - SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. P-2)

Date / Time: 12/05/2024; 9:40 am Test performed by: Shinsato Engineering, Inc.

Owner: County of Kauai TMK: (4) 5-5-001: 002,004, 005, por. 008, 011, 033, 034, 049

Elevation:	Unknown	feet
Depth to Groundwater Table :	+/-3'	feet below grade
Depth to Bedrock (if observed):	Not observed	feet below grade
Diameter of Hole:	4	inches
Depth to Hole Bottom:	1.83	feet below grade

Depth, inches below grade	Soil Profile (color, texture, other
0 - 12	brown silty GRAVEL with sand, medium dense
12 - 22	light brown silty SAND, fine grain

PERCOLATION READINGS:

Time 12 in. of water to seep away: 120 minutes

Time 12 in. of water to seep away: 120 minutes

Check one:

X Percolation tests in sandy soils, recorded time intervals and water drop s at least every 10 minutes for at least 1 hour.

Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes record time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch

Time interval (min.)	Drop in inches	Time interval (min.)	Drop in inches
30	1-1/8	30	1-1/2
30	1-1/2		
30	3/4		
30	1-1/2		

Percolation Rate (time/final water level drop): **20.0** minutes/inches

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Lawrence S. Shinsato

Engineer's Signature/Stamp
License Expires 04/30/2026



01/21/2025
Date

DEPARTMENT OF HEALTH - WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) - SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. P-3)

Date / Time: 12/05/2024; 10:33 am Test performed by: Shinsato Engineering, Inc.

Owner: County of Kauai TMK: (4) 5-5-001: 002,004, 005, por. 008, 011, 033, 034, 049

Elevation:	Unknown	feet
Depth to Groundwater Table :	+/-3.17	feet below grade
Depth to Bedrock (if observed):	Not observed	feet below grade
Diameter of Hole:	4	inches
Depth to Hole Bottom:	3.0	feet below grade

Depth, inches below grade	Soil Profile (color, texture, other
0 - 36	light brown silty SAND, fine grain

PERCOLATION READINGS:

Time 12 in. of water to seep away: less than 15 minutes

Time 12 in. of water to seep away: less than 15 minutes

Check one:

X Percolation tests in sandy soils, recorded time intervals and water drop s at least every 10 minutes for at least 1 hour.

Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes record time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch

Time interval (min.)	Drop in inches	Time interval (min.)	Drop in inches
2	6	2	6
2	6		
2	5-3/4		
2	6		

Percolation Rate (time/final water level drop): **0.33** minutes/inches

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Lawrence S. Shinsato

Engineer's Signature/Stamp
License Expires 04/30/2026



01/21/2025
Date

DEPARTMENT OF HEALTH - WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) - SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. P-4)

Date / Time: 12/05/2024; 12:30 pm Test performed by: Shinsato Engineering, Inc.

Owner: County of Kauai TMK: (4) 5-5-001: 002,004, 005, por. 008, 011, 033, 034, 049

Elevation:	Unknown	feet
Depth to Groundwater Table :	+/-3	feet below grade
Depth to Bedrock (if observed):	Not observed	feet below grade
Diameter of Hole:	4	inches
Depth to Hole Bottom:	2	feet below grade

Depth, inches below grade	Soil Profile (color, texture, other
0 - 12	light brown silty SAND, fine grain, with gravel
12 - 24	–no gravel

PERCOLATION READINGS:

Time 12 in. of water to seep away: 2 minutes

Time 12 in. of water to seep away: 4.75 minutes

Check one:

X Percolation tests in sandy soils, recorded time intervals and water drop s at least every 10 minutes for at least 1 hour.

Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes record time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch

Time interval (min.)	Drop in inches	Time interval (min.)	Drop in inches
2.5	6	5.9	6
2.5	6	5.9	6
3.25	6		
5.13	6		

Percolation Rate (time/final water level drop): **0.98** minutes/inches

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Lawrence S. Shinsato

Engineer's Signature/Stamp
License Expires 04/30/2026



01/21/2025
Date

Article 11. Regulations Within Flood Hazard Districts and Developments Adjacent to Drainage Facilities

Sections:

16-11.1 Applicability.
16-11.2 Definitions.
16-11.3 Floodproofing requirements in certain areas.
16-11.4 Floodproofing methods.
16-11.5 Structural requirements.
16-11.6 Violations--Penalty.

Sec. 16-11.1 Applicability.

(a) General. The provisions contained herein are applicable to the construction of all new buildings and structures, relocation and major alterations, additions or reconstruction of existing buildings within the flood hazard districts as delineated on the flood boundary and floodway maps and flood insurance rate maps, and any amendments by the Federal Emergency Management Agency, on file with the department of land utilization, City and County of Honolulu.
These provisions shall also apply to developments adjacent to drainage facilities outside the flood hazard district which are determined to be within a floodway area or a flood fringe area in accordance with Section 21-9.10 9.

(b) Nonconforming Buildings. Any building or structure which was previously lawful prior to the effective date of this article but which is not in conformity with this article may be continued subject to the provisions of Section 21-9.10 12.

(c) Exemptions. The provisions contained herein shall not apply:
(1) To buildings and structures exempted from the flood hazard district provisions under Section 21-9.10 13;
(2) To buildings and structures which have been granted a flood hazard variance under provisions of Section 21-9.10 11.

(Sec 16-7.1, R.O. 1978 (1983 Ed.); Sec. 16-5.1, R.O. 1978 (1987 Supp. to 1983 Ed.); Am. Ord. 90-57)

Sec. 16-11.2 Definitions.

For the purpose of this article, the following terms are defined in Chapter 21, Article 10:
Coastal high hazard district;
Flood elevation;
Flood fringe;
Flood hazard district;
Floodproof;
Floodway;
Regulatory flood. (Sec. 16-7.2, R.O. 1978 (1983 Ed.); Sec. 16-5.2, R.O. 1978 (1987 Supp. to 1983 Ed.); Am. Ord. 90-57)

Sec. 16-11.3 Floodproofing requirements in certain areas.

(a) General. Building permit applications for structures which are required to be floodproofed under the provisions of Section 21-9.10 and this article shall be accompanied by a statement of a registered professional engineer or architect that to the best of such person's knowledge, information and belief, the floodproofing methods are adequate to resist the flood depths, pressures, velocities, impact and uplift forces, and other factors associated with the flood, including flood waters due to tsunamis in coastal high hazard districts.

(b) Floodproofing of Buildings above Regulatory Flood Elevation. All buildings and structures which are required to be elevated above the regulatory flood elevation shall be floodproofed by building on natural terrain above the regulatory flood elevation on natural undisturbed ground or by building on stilts or by building on fill (unless fill is specifically prohibited by Section 21-9.10, in the particular flood hazard district) or by other approved methods.

(c) Waterproofing of Buildings Below Regulatory Flood Elevation. Any building or portion thereof, not used for human habitation, and which is permitted to be below the regulatory flood elevation shall either have the space below the regulatory flood elevation free of obstructions or shall be designed and constructed so that below the regulatory flood elevation, the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy due to the regulatory flood. Compliance with the requirements of ASCE 24 shall be deemed to be in compliance with this section. Within coastal high hazard districts, however, any usable enclosed space below the regulatory flood elevation shall be constructed with breakaway walls intended to collapse under stress without jeopardizing the structural support of the building. Areas enclosed by such breakaway walls shall not be used for human habitation.

(Sec. 16-7.3, R.O. 1978 (1983 Ed.); Sec. 16-5.3 R.O. 1978 (1987 Supp. to 1983 Ed.); Am. Ord. 90-57, 12-34)

Sec. 16-11.4 Floodproofing methods.

(a) Natural Terrain. The following shall be applicable to buildings on natural terrain:
(1) Foundation design shall take into consideration the effects of soil saturation on the performance of the foundation.
(2) The effects of floodwaters on slope stability and erosion shall be investigated.
(3) All utility service lines shall be designed and constructed as provided in the plumbing and electrical codes.

(b) Building on Stilts. Where a building is to be constructed so that the lowest floor is to be elevated above the regulatory flood elevation, the building may be supported on columnar type members, such as columns, piers and in certain cases, walls. Clear spacing of support members, measured perpendicular to the general direction of flood flow shall not be less than eight feet apart at the closest point. The stilts shall, as far as practicable, be compact and free from unnecessary appendages which would tend to trap or restrict free passage of debris during a flood. Solid walls or walled-in columns are permissible if oriented with the longest dimension of the member parallel to the flow. Stilts shall be capable of resisting all applied loads as required by this code and all applicable flood related loads as required herein. Bracing, where used to provide

lateral stability, shall be of a type that causes the least obstruction to the flow and the least potential for trapping floating debris. Foundation supports for the stilts may be of any approved type capable of resisting all applied loads, such as spread footings, mats, piles and similar types. In all cases, the effect of submergence of the soil and additional floodwater related loads shall be recognized. The potential of surface scour around the stilts shall be recognized and protective measures provided, as required.

(c) Building on Fill.

(1) Except in districts where fill is specifically prohibited as structural support for buildings by Section 21-7.10, as amended, buildings may be constructed on fill material.

(2) The fill shall not adversely affect the capacity of the floodway or any tributary or any other drainage facility or system, and shall be performed in accordance with Chapter 14, ROH 1990, as amended.

(Sec. 16-7.4, R.O. 1978 (1983 Ed.); Sec. 16-5.4, R.O. 1978 (1987 Supp. to 1983 Ed.); Am. Ord. 90-57

Sec. 16-11.5 Structural requirements.

(a) General. All buildings and structures to be constructed under the provisions of this article shall be in accordance with ASCE 24 or this section.

(b) Stability.

(1) Overturning or Sliding. All buildings and structures to be constructed under the provisions of this article shall be designed and constructed to provide a minimum factor of safety of 1.50 against failure by sliding or overturning when subjected to combined loads as specified in subsection (d) of this section.

(2) Flotation. All buildings and structures to be constructed under the provisions of this article shall be designed and constructed to resist flotation from floodwater at the regulatory flood elevation with a safety factor of 1.33.

(c) Loads. The following loads shall be considered in the design and construction of buildings and structures subject to the provisions of this article:

(1) Hydrostatic loads;

(2) Hydrodynamic loads;

(3) Impact Loads. Assume concentrated load acting horizontally at the regulatory flood elevation or at any point below it, equal to the impact force produced by a 1,000-pound mass traveling at the velocity of the flood water and acting on a one-square foot surface of the structure;

(4) Soil Loads. Consideration shall be given to loads or pressures resulting from soils against or over the structure. Computation shall be in accordance with accepted engineering practice with proper consideration for effect of water on the soil. Special consideration shall be given in the design of structures when expansive soils are present;

(5) Tsunami. Structural design of buildings and structures subject to tsunamis shall be in accordance with subsection (f) of this section.

(d) Combined Loads. All loads stipulated in this chapter and all flood-related loads specified under subsection (c) of this section shall be applied on the structure and on structural components, alone and in combination, in such manner that the combined effect will result in maximum loads and stresses on the structure and members. Application of these loads shall be as follows:

(1) Dead Loads. Use at full intensity.

(2) Live Loads. Use at reduced intensity as provided in this chapter for design of columns, piers, walls, foundation, trusses, beams and flat slabs. Live loads on floors at or below the regulatory flood elevation and particularly in basement slabs, shall not be used if their omission results in greater loading or stresses on such floors. Similarly, for storage tanks, pools and other similar structures designed to contain and store materials, which may be full or empty when a flood occurs, both conditions shall be investigated in combination with flood related loads of the containing structure being full or empty.

(3) Wind Load. Use at full intensity as required in this chapter on areas of the building and structure above the regulatory flood elevation.

(4) Earthquake Load. Combined earthquake and flood related loads need not be considered.

(e) Allowable Soil Pressures. Under flood conditions, the bearing capacity of submerged soils is affected and reduced by the buoyancy effect of the water on the soil. For foundations of buildings and structures covered by this article, the bearing capacity of soils shall be evaluated by a recognized acceptable method. Expansive soils should be investigated with special care. Soils which lose all bearing capacity when saturated, or become "liquefied" shall not be used for supporting foundations.

(f) Coastal Flood Water Design.*

[*Reference is made to the January 31, 1980 report by Dames & Moore entitled “Design and Construction Standards for Residential Construction in Tsunami-Prone Areas in Hawaii” prepared for the Federal Emergency Management Agency for a more detailed study and analysis of tsunami wave forces.]

(1) Buildings or structures shall be designed to resist the effects of coastal floodwaters due to tsunamis. The regulatory flood elevation due to tsunamis is considered to result from a non-bore condition, except where a bore condition is shown on the flood insurance maps or in the flood study adopted for the county.

(2) Habitable space in building structures must be elevated above the regulatory flood elevation by such means as posts, piles, piers or shear walls parallel to the expected direction of flow of the tsunami wave. The forces and effects of floodwaters on the structure shall be fully considered in the design.

(3) Allowable stresses (or load factors in the case of ultimate strength or limit design) for the building materials used shall be the same as the building code provides for wind or earthquake loads combined with gravity loads, i.e., treat loads and stresses due to tsunamis in the same fashion as for earthquake loadings.

(4) The main building structure shall be adequately anchored and connected to the elevating substructure system to resist all lateral, uplift and downward forces. In wood construction, toenailing is not allowed.

(5) Scour of soil from around individual piles and piers shall be provided for in the design in the coastal flood hazard district. Shallow foundation types are not permitted unless the natural supporting soils are protected on

all sides against scour by a shore protection structure, preferably a bulkhead. Shallow foundations may be permitted beyond 300 feet from the shoreline, provided they are founded on natural soil and at least two feet below the anticipated depth of scour, and provided not more than three feet of scour is expected at the structure. The table below gives estimated minimum depths of soil scour below existing grade as a percentage of the depth (h) of water at the location.

Estimated Minimum Scour

	Distance from Shoreline	
	Up to 300 Feet[1]	**Greater than 300 Feet[2]**
Loose sand	80% h	60% h
Dense sand	50% h	35% h
Soft silt	50% h	25% h
Stiff silt	25% h	15% h
Soft clay	25% h	15% h
Stiff clay	10% h	5% h

[1] Values may be reduced by 40% if a substantial dune or berm higher than the regulatory flood elevation protects the building site.
[2] Values may be reduced 50% if the entire region is essentially flat.

(6) Forces which must be considered in the design of structures elevated to resist floodwaters include:
- (A) Buoyant forces -- uplift caused by partial or total submergence of a structure.
- (B) Surge forces -- caused by the leading edge of a surge of water impinging on a structure.
- (C) Drag forces -- caused by velocity of flow around an object.
- (D) Impact forces -- caused by debris such as driftwood, small boats, portions of houses, etc., carried in the flood currents and colliding with a structure.
- (E) Hydrostatic forces -- caused by an imbalance of pressure due to a differential water depth on opposite sides of a structure or structural member.

(7) Buoyant Force. The buoyant force on a structure or structural member subject to partial or total submergence will act vertically through the center of mass of the displaced volume and is calculated from the following equation:

$$F_B = pgV$$

where F_B = buoyant force acting vertically
p = density of water (2.0 lb s^2/ft^4 for salt water)
g = gravitational acceleration (32.2 ft/s^2)
V = displaced volume of water (ft^3)

(8) Surge Force. The total force per unit width on a vertical wall subjected to a surge from the leading edge of a tsunami which approaches the structure as a bore or bore-like wave is calculated from the equation below. The resultant force acts at a distance approximately h above the base of the wall. (Note: This equation is applicable for walls with heights equal to or greater than 3h. Walls whose heights are less than 3h require surge forces to be calculated using the appropriate combination of hydrostatic and drag force equations for the given situation.)

$$F_S = 4.5\ pgh^2$$

where F_S = total force per unit width of wall
p = density of water (2.0 lb s^2/ft4 for salt water)
g = gravitational acceleration (32.2 ft/s^2)
h = surge height (ft)

(9) Drag Force.

$$F_D = \frac{pC_dAu^2}{2}$$

where F_D = total drag force (lbs) acting in the direction of flow
p = density of water (2.0 lb s^2/ft^4 for salt water)
C_D = drag coefficient (nondimensional) (1.0 for circular piles, 2.0 for square piles, 1.5 for wall sections)
A = projected area of the body normal to the direction of flow (ft^2)
U = velocity of flow relative to body (ft/s) (estimated as equal in magnitude to depth in feet of water at the structure)

The flow is assumed to be uniform, so the resultant force will act at the centroid of the projected area immersed in the flow.

(10) Impact Force.

$$F_I = \frac{m dU_b}{dt}$$

where F_I = impact force (lb)
m = mass of the water displaced by the body impacting the structure (slugs)
U_b = velocity of the body (ft/s) (estimated as equal in magnitude to depth in feet of water at the structure)
t = time (s)
$\frac{dU_b}{dt}$ = acceleration (deceleration) of the body at (ft/s^2)

This single concentrated load acts horizontally at the regulatory flood elevation or at any point below it and is equal to the impact force produced by a 1000-pound weight of debris traveling at the velocity of the flood water and acting on a one square-foot surface of the structural material where impact is postulated to occur. The impact force is to be applied to the structural material at a most critical or vulnerable location determined by the designer. It is assumed that the velocity of the body goes from U_b to zero over some small finite time interval (Δt) so the following approximation can be made:

$$F_I = \frac{31 U_b}{\Delta t}$$

For structural material of wood construction, assume Δt, the time interval over which impact occurs, is one second. For structural material of reinforced concrete construction, use Δt of 0.1 second and for structural material of steel construction, use $\Delta t = 0.5$ second.

(11) Hydrostatic Force.

$$F_H = \frac{1}{2} pg \left\{ h + \frac{u_P^2}{2g} \right\}^2$$

where F_H = hydrostatic force (lb/ft) on a wall, per unit width of wall
p = density of water (2.0 lb s^2/ft^4 for salt water)
g = gravitational acceleration (32.2 ft/s^2)
h = water depth (ft)
u_p = component of velocity of flood flow perpendicular to the wall (ft/s) (total velocity, u, estimated as equal in magnitude to depth in feet of water at the structure)

The resultant force will act horizontally at a distance of

$$\frac{1}{3} \left\{ h + \frac{u_P^2}{2g} \right\}$$

above the base of the wall.

(Sec. 16-7.5, R.O. 1978 (1983 Ed.); Sec. 16-5.5, R.O. 1978 (1987 Supp. to 1983 Ed.); Am. Ord. 90-57, 12-34)

Sec. 16-11.6 Violations--Penalty.

For violation and penalty provisions of this article, see Article 10 of this chapter. (Added by Ord. 90-57)

APPENDIX B

Draft IWS Feasibility Report

Draft Final
Black Pot Beach Wastewater Feasibility Study

Weke Road
Hanalei, Hawaii 96714
TMK Nos. (4) 5-5-001:004, 002, 008, 011, 033, 034, 049

Prepared for:
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Prepared by:

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November 5, 2025

LAULEA
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Acronyms, Abbreviations and Definitions

ATU	Aerobic Treatment Unit
BOD	Biochemical Oxygen Demand
DOH	Department Of Health
GPD	Gallons Per Day
HAR §11-62	Hawaii Administrative Rules, Chapter 62 of Title 11
IWS	Individual Wastewater System
MPI	Minutes Per Inch
NSF/ANSI	National Science Foundation / American National Standards Institute
ROM	Rough Order of Magnitude
SF	Square Feet
SMA	Special Management Area
TMK	Tax Map Key
TSS	Total Suspended Solids
UV	Ultraviolet

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INTRODUCTION

This feasibility study serves to assess the engineering design, permitting, and implementation options for individual wastewater system (IWS) upgrades for Black Pot Beach Park to serve the new Medium Comfort Station. The site is located on the northern coast of the island of Kauai across multiple TMKs (listed below). The Black Pot Beach Master Plan dated May 2021 prepared by HHF Planners and provided by the County of Kauai Department of Parks and Recreation outlines both completed and ongoing improvements, laying out the future of the beach park. The Black Pot Beach Engineering Report dated April 2017, also produced by HHF Planners, provides a more in-depth analysis of the improvements previously mentioned.

- **Name of Property:** Black Pot Beach Park
- **Project Address**: Weke Road, Hanalei, Kauai
- **Tax Map Key(s):** (4) 5-5-001:002, 004, 008, 011, 033, 034, 049
- **Total Land Area**: 13.7 acres
- **Zoning**: OP
- **Special Management Area (SMA)**: Yes
- **Proposed Project Area**: See *Figure 1: Location Map from Black Pot Beach Master Plan*

The most feasible alternative will be determined by comparing ROM estimate costs, estimate IWS completion timeline, permitting efforts, and operation & maintenance efforts. All alternatives must meet both current and projected future demands while adhering to regulatory permitting requirements.

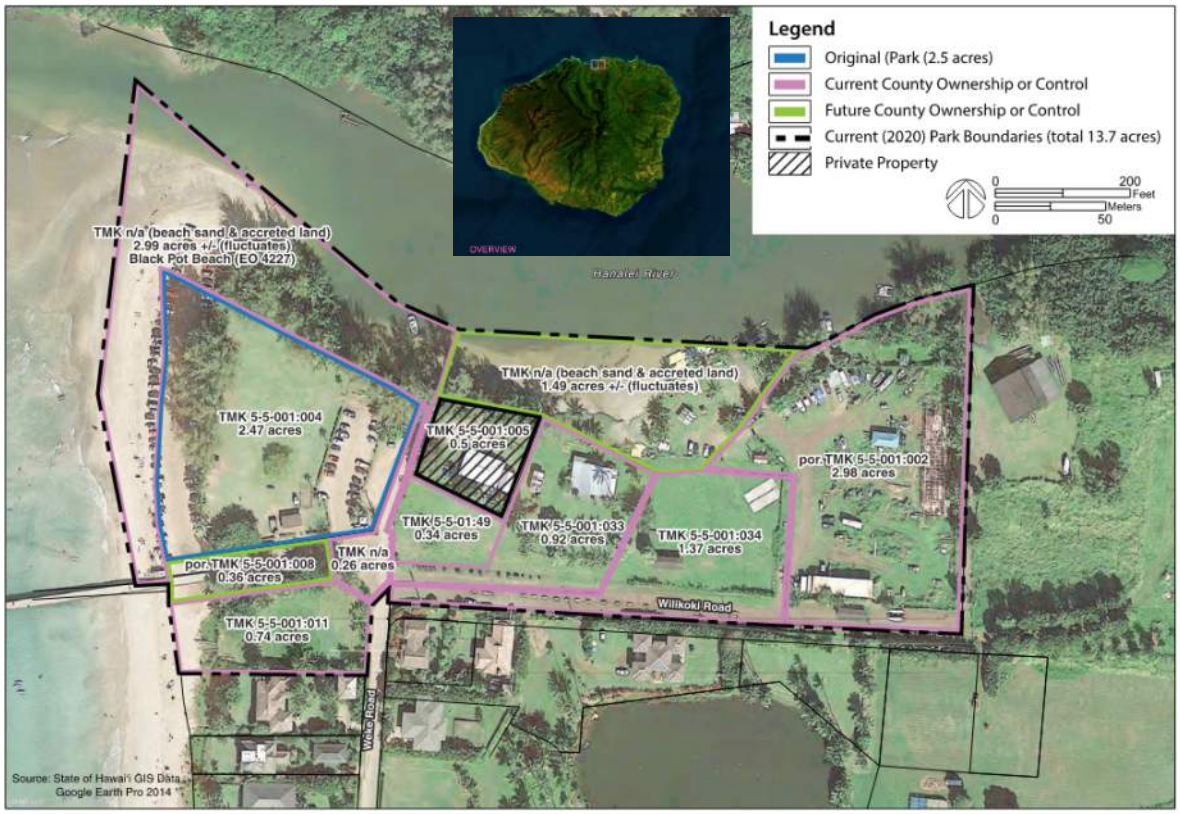


Figure 1: Location Map from Black Pot Beach Master Plan

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PROJECT DESCRIPTION

There are presently 4 IWSs serving Black Pot Beach Park with designated IWS permit numbers that are open in DOH's records. Additionally, there are 2 closed IWS permit numbers, Nos. 18468 and 39392 (shown in the table below), that are in DOH's records, which have been previously abandoned and reused, respectively. There is also 1 additional existing IWS that is not recorded in DOH's records that formerly served the abandoned canoe hale and was originally installed sans IWS permit (See *Figure 2: G70 Proposed Map with Existing IWSs and TMK Borders*).

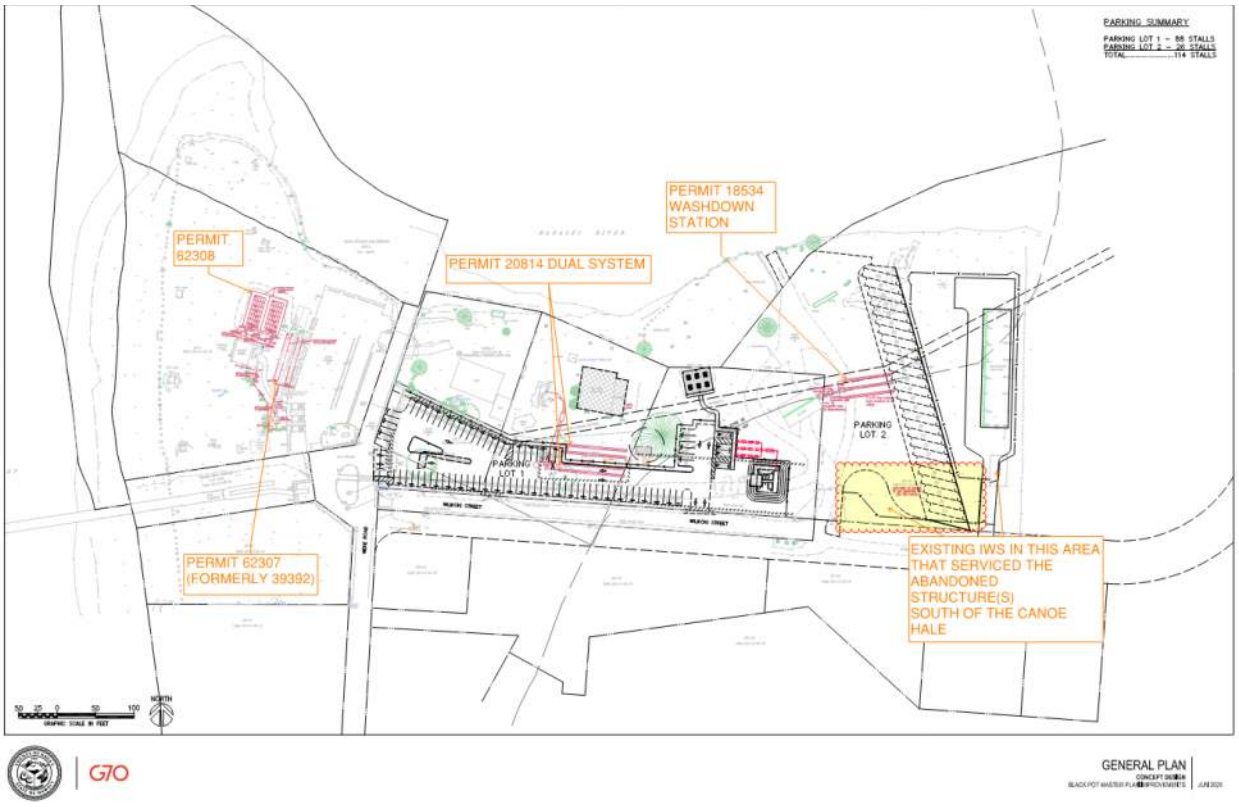


Figure 2: G70 Proposed Map with Existing IWSs and TMK Borders

Permit No.	Date	Services	IWS Status
62307	2019	Large Comfort Station Men's Restroom	In Operation
62308	2019	Large Comfort Station Women's Restroom	In Operation
18534	1992	Boat Washdown Separation	In Operation
20814*	2017	Park and Picnic Area	Inactive
18468	1990	None – abandoned	Closed
39392	2008	None – abandoned and leachfield reused for 62307	Closed

**This IWS is existing and active in DOH's records, but the buildings it served are abandoned.*

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The 2 active IWSs under approved permit numbers 62307 and 62308 will be protected-in-place as they are in satisfactory operation and were constructed fairly recently in 2019, built concurrently with the existing Large Comfort Station. These 2 active IWSs were previously designed and are currently permitted with DOH at design capacities per the flow rate calculations shown below.

- (62307) 300 Users per Day at 5 GPD = 1,500 GPD
- (62308) 300 Users per Day at 5 GPD = 1,500 GPD
- (18534) 1000 gallon per day runoff, 1.5 safety factor = 1,500 GPD design
- (20814) 300 Users per Day at 5 GPD = 1,500 GPD, Flow alternates between two 800 GPD systems.

WASTEWATER INFRASTRUCTURE UPGRADES

New Medium Comfort Station IWS Overview

The new Medium Comfort Station will be installed on the east side of the property near the parking lot entrance off Weke Road and the new proposed Wilikoki Street (per G70). The system capacity must adhere to the requirements of HAR §11-62, which specifies a maximum daily flow of 1,000 GPD per IWS. When applying 5 GPD for each user (specified in HAR §11-62 Appendix D Table I) the system can serve a maximum of 200 users per day, per IWS. Users are calculated based on estimated number of visitors entering the facility, but final calculations are subject to DOH approval and commentary. Using the maximum design capacity of 1,000 GPD, there are currently 4 possible IWS layout options which are as follows:

- Option 1: Install 1 new 1,000 GPD IWS with an ATU (200 users).
- Option 2: Install 1 new 1,000 GPD IWS with an ATU for the men's restroom (200 users) and 1 new 1,000 GPD IWS with an ATU for the women's restroom (200 users).
- Option 3: Reuse one of the existing inactive leachfields (under IWS Permit No. 20814) and install a new ATU for system capacity of 1,000 GPD (200 users), the secondary leachfield and unused septic tanks must be abandoned.
- Option 4: Reuse both of the existing leachfields (under IWS Permit No. 20814) and install 2 new ATUs, one for the men's restroom (200 users) and one for the women's restroom (200 users) with system capacity of 1,000 GPD each. Unused septic tanks must be abandoned.

The new Medium Comfort Station design features a unified floorplan with a shared lavatory; sewer flows generated will convey into one IWS (See *Figure 3: Medium Comfort Station*). The current layout is only able to be supported by Options 1 or 3 due to the shared lavatory. If the women's and men's sewer flows are separated, and a new individual plumbing line is connected so that each will have their own sewerline, they can be served by independent IWSs, i.e. Options 2 or 4.

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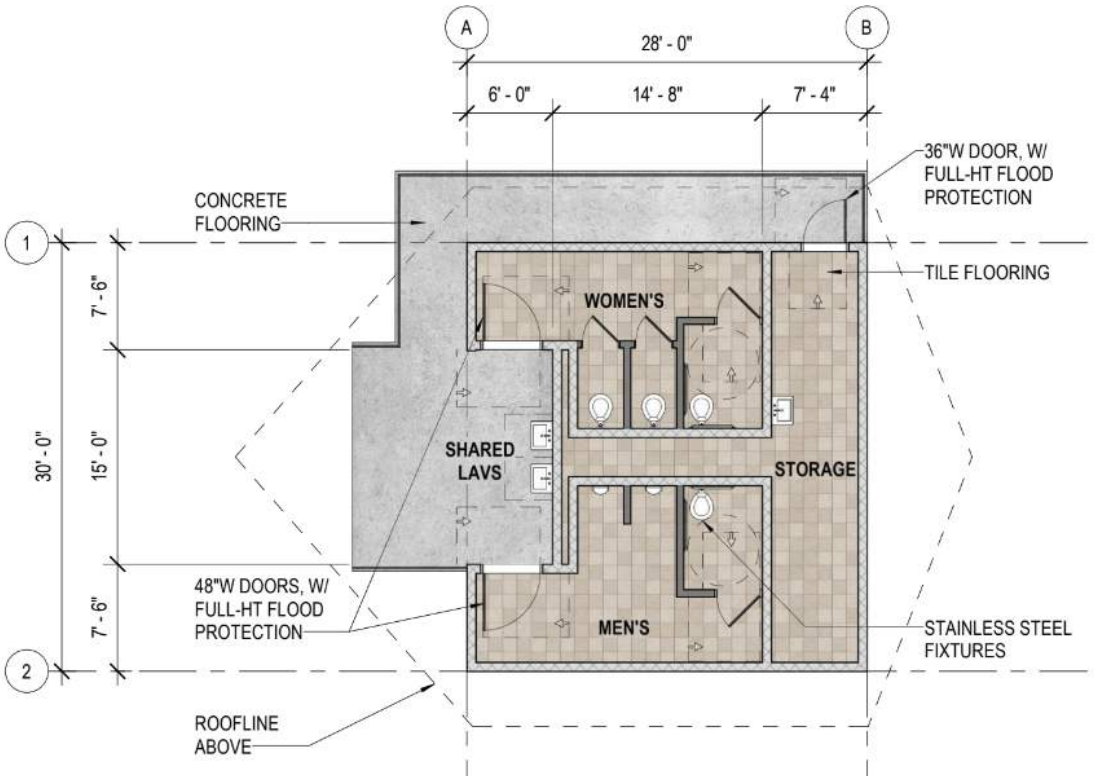


Figure 3: Medium Comfort Station

IWS DESIGN AND TECHNICAL INFORMATION

All of the presented options herein will require the full scope of work (design, permitting, and construction) for an IWS compliant to the DOH Wastewater Branch. This includes preparation of engineering plans in accordance with HAR §11-62, which must be signed and stamped by a Hawaii-licensed professional engineer (engineer of record). The submittal is reviewed by DOH, and an Approval to Construct (ATC) must be issued prior to construction. Construction must be performed by a contractor holding one of the DOH required license classifications: A (General Engineering), C-9 (Cesspool), C-37 (Plumbing), C-37a (Sewer & Drain Line), or C-43 (Sewer/Sewage Disposal/Drain & Pipe Laying). Upon completion, the engineer of record must provide limited construction observation and submit a Construction Inspection Report (CIR) along with other required documents to DOH to obtain a Certificate of Construction (aka the Approval to Use) allowing the IWS to commence operation.

IWS Components:

DOH and HAR §11-62 sets the minimum design requirements for wastewater treatment systems. Additional components or upgrades may be added at the discretion of the stamping engineer of record. Site specific requirements (e.g. high groundwater, intermittent flows, surge flows, high strength influent, etc.) will determine the need for additional treatment components to ensure a more effective and compliant design.

An Individual Wastewater System (IWS) has two main components: treatment and treated effluent disposal:

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- Treatment for an IWS usually involves a septic tank, which separates liquids from the solids, or an aerobic treatment unit (ATU), which provides biological treatment through aeration from blowers. These systems can be upgraded with components such as, but not limited to, a grease interceptor, preloader tank, UV disinfection, membrane filters, and sand filters.
- Treated effluent disposal for an IWS is typically performed through a leachfield, which is the method mostly used in design and submitted to DOH. Leachfields may be constructed using perforated pipe, chambered systems, or advanced leaching systems, which can provide passive treatment to meet criteria for NSF/ANSI 40 or 245 certification, or used to reduce the overall footprint, depending on the selected system. There are certain exceptions for disposal to be designed reusing or replacing a seepage pit/injection well depending on the site conditions and at the discretion and approval of DOH.

IWS Options 1 & 2 (New ATU + New Leachfield):

For a new leachfield, a soils replacement must be done beneath the chambers as the calculated percolation rate is less than 1 MPI. According to the geotechnical report done by Shinsato Engineering, groundwater was encountered at depths between 1.5 – 4.5 feet. Due to those recorded depths, the leachfield must either be mounded to maintain the required 3-foot vertical separation from groundwater, or a variance permit must be filed and approved through DOH. In the event that the leachfield design is mounded, a lift station or dosing tank must be installed after the treatment unit to pump treated effluent into the mounded leachfield, or alternatively, the treatment unit (septic tank or ATU) may also be mounded to allow sufficient gravity flow into the mounded leachfield. In the event that the leachfield design be installed and backfilled at grade (not mounded), a variance permit must be obtained and the IWS design must incorporate an NSF/ANSI Standard 245 DOH-approved ATU as the treatment unit and also incorporate a UV disinfection system prior to the treated effluent flowing into the leachfield at grade.

If the men's restroom and women's restroom are plumbed separately (Option 2), 2 IWSs will be needed (1 IWS per restroom), similar to the design of the existing large comfort station (IWS Permit Nos. 62307 and 62308) to serve a maximum IWS design capacity for 400 visitors per day. Design efforts will require coordination with the proposed master planning to ensure the visitor capacity meets the maximum IWS design capacity. Currently, the proposed G70 parking lot design includes 147 permanent parking stalls and 30 trailer parking stalls to control the number of visitors each day (parking barriers will also be installed to prevent additional parking and driving into the open field).

Timeline and Permitting for 1 IWS:

- Engineering Design:
  - 2 - 3 months, this includes client commentary and any edits that need to be made to the plans, and the submittal of all permit sets via the DOH Online Portal.
- Permitting:
  - 2 - 3 months for mounded IWS, this includes rounds of comments with DOH until ATC is received.
    - 5 - 9 months for IWS installed at grade with a variance permit. *Variance permit: the review process and approval will take an additional 3 - 6*

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months, and an NSF/ANSI 245 approved ATU and UV disinfection system must be added to the IWS design.

- Installation:
  - 3 - 4 months, this includes selection of a contractor, mobilization, and procurement of materials. If there is a shortage of materials and shipping delays, the estimate timeline will be extended.
- Total Timeline: 7 - 10 months (mounded IWS without variance permit)
  10 - 16 months (with variance permit).

Leachfield Sizing for 1 IWS:

- 5 GPD x 200 Persons per Day = 1,000 GPD
- 1 MPI at 70 SF/ 200 GPD required = 350 SF standard leachfield required
  - *17% reduction cannot be applied as system will not be installed on native soils (soil replacement required when percolation rate is <1 MPI)*
- Using Infiltrator Quick5's (H10 traffic rated) at 14.16 SF each, 5 rows x 5 units long = 25 chambers with disposal area of 354.2 SF total.

Operation and Maintenance for 1 IWS:

- Each system will need to be pumped an estimated 1x a year, for an estimated minimum $600 per 2,000 gallons each pump-out.
- A licensed operator must be contracted to maintain ATUs, pricing varies (minimum $650 per year) per operator and will be determined at a later time.

ROM Cost Estimate for IWS (design and construction):

- $265,000 – $405,000 for 1 IWS with 1 ATU.
- $415,000 – $630,000 for 2 IWSs with 2 ATUs.
- Additional components or line items that may be required are as follows: dosing tank, lift station, UV disinfection, preloader, variance.

IWS Options 3 & 4 (Reuse Existing Leachfields):

The 2 existing inactive IWSs (under IWS Permit No. 20814) consist of two 800 GPD systems operating in parallel, but altogether is permitted for 1,500 GPD. Options 3 & 4 will only be considering reusing the leachfields, not the septic tanks. Each leachfield is sized at 510 SF and based on the original percolation rate used at 2 MPI, has a maximum design capacity to each accommodate 1,200 GPD. However, DOH regulations prohibit IWSs with capacities exceeding 1,000 GPD, thus, the 2 existing IWSs cannot be reused in their current configuration. The existing septic tanks will need to be abandoned, but the 2 existing inactive leachfields may potentially be reused if they are deemed to be in satisfactory operational condition and re-permitted with the new ATU(s) as described previously in IWS Options 1 & 2 (New ATU + New Leachfield).

If the existing inactive leachfields under IWS Permit No. 20814 are reused to serve the new Medium Comfort Station, they must first undergo a thorough assessment due to the absence of thorough as-built drawings in DOH records. This assessment shall include partial excavation

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(which must be performed by a contractor with excavation equipment) to expose areas of the leachfields for investigation to determine if it is sufficient for reusing and if refurbishing is needed, determining groundwater depths adjacent to or beneath the leachfields, and conducting a percolation test(s) to confirm percolation rates in the soils beneath and surrounding the leachfields' area.

Since the existing inactive leachfields are located approximately 180 feet from the proposed Medium Comfort Station, the leachfields will require a lift station to convey treated effluent flows from the Medium Comfort Station as there will be insufficient pipe slope for gravity flows.

Additionally, the proposed new parking lot (See *Figure 2: G70 Proposed Map with Existing IWSs and TMK Borders*) is situated over the existing inactive leachfields. Per DOH records, both existing leachfields consist of perforated pipes surrounded with gravel bedding and backfill material, and which are not traffic rated for vehicular loads. Any parking lot pavement over the leachfields will require either 6" concrete or 9" asphalt concrete paved over the area of the existing leachfields to achieve a recommended H-20 traffic rating. Alternatively, the proposed new parking lot configuration will require adjusting to ensure no cars will drive across or park on top of the existing leachfields.

Timeline and Permitting:

- Engineering Design:
  - 2 - 3 months, this includes client commentary and any edits that need to be made to the plans, site investigation and assessment of the existing leachfields for reusing/refurbishing, and the submittal of all permit sets via the DOH Online Portal.
- Permitting:
  - 5 - 9 months, this includes rounds of comments with DOH until ATC is received, a variance permit will likely be required.
    - *A variance permit will likely be required if the existing leachfields are reused for treated effluent disposal from the Medium Comfort Station due to the approval to use showing the IWS constructed at grade (not mounded) and potentially not meeting the 3' vertical separation from groundwater. The treatment unit will be required to be an NSF/ANSI 245 approved ATU and include a UV disinfection system described previously in IWS Options 1 & 2 (New ATU + New Leachfield). The variance permit review process and approval will take an additional 3 - 6 months.*
- Installation:
  - 3 - 4 months, this includes selection of a contractor, mobilization, and procurement of materials. If there is a shortage of materials or extreme tariff changes the timeline will be extended.
- Total Timeline: 10 - 16 months (with variance permit).

Leachfield Sizing:

- 5 GPD x 200 Persons per Day = 1000 GPD

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- 1 MPI at 70 SF/ 200 GPD required = 350 SF minimum for 1 leachfield
    - Existing leachfields are 510 SF each.

Operation and Maintenance:

- Each system will need to be pumped an estimated 1x a year, for an estimated $600 per 2,000 gallons pump-out.
- A licensed operator must be contracted to maintain ATUs, pricing varies (minimum $600 per year) per operator and will be determined at a later time.

ROM Cost Estimate for IWS (design and construction):

- $235,000 – $355,000 for 1 IWS upgrade (1 ATU as the treatment unit, and 1 lift station).
- $365,000 – $555,000 for 2 IWS upgrade (2 ATU as the treatment unit, and 2 lift stations).

SUMMARY

All rough order of magnitude (ROM) estimates is based on engineering best estimate and government project pricing referenced between the years of 2019 to 2024.

IWS Option 1 (1 New ATU and 1 Leachfield)

- Percolation rate <1 MPI = soil replacement required beneath chambers.
- Groundwater recorded at 1.5 – 4.5 ft = must mound leachfield or obtain variance permit to maintain a minimum 3-ft vertical separation from groundwater.
    - Dosing tank may be required to convey flows into mounded leachfield.
    - If a variance permit is obtained, system can be traffic rated (H-20 traffic rating).
- Install 1 new IWS (using an ATU) to serve 1,000 GPD, equivalent to 200 visitors/day.
    - A preloader may be installed as well if surge flows are a concern.
    - Leachfield requires 12” of cover over top of chambers.
    - Deadman anchoring/concrete collars likely required.
- Leachfield sizing per HAR §11-62 = 350 SF (17% reduction factor not allowed for leachfield not on native soils).
- ROM cost estimate: $265,000 – $405,000.

IWS Option 2 (2 New ATUs and 2 Leachfields)

- Percolation rate <1 MPI = soil replacement required beneath chambers.
- Groundwater recorded at 1.5 – 4.5 ft = must mound leachfields or obtain variance permit to maintain a minimum 3-ft separation from groundwater.
    - Dosing tank may be required to convey flows into mounded leachfield.
    - If a variance permit is obtained, systems can be traffic rated (H-20 traffic rating).
- Install 2 new IWSs (using 2 ATUs) to serve a total of 2,000 GPD (1,000 GPD each IWS), equivalent to a total of 400 visitors/day (200 visitors/day each IWS).

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  - Preloaders may be installed as well if surge flows are a concern.
  - Deadman anchoring/concrete collars likely required.
  - Leachfields require 12" of cover over top of chambers.
- Leachfield sizing per HAR §11-62 = 350 SF each (17% reduction factor not allowed for leachfield not on native soils).
- ROM cost estimate: $415,000 – $630,000

IWS Option 3 (1 New ATU and Reuse 1 Existing Leachfield - IWS Permit No. 20814)

- Assessment required due to no thorough as-builts in DOH records, to include:
  - Partial excavation to verify construction details.
  - Groundwater depth measurement abut/adjacent to leachfield.
  - Percolation/infiltration testing.
- Existing IWS: 2 existing leachfields in parallel (total 1,500 GPD per DOH IWS Permit No. 20814), each 510 SF.
  - DOH prohibits IWS capacities >1,000 GPD; current configuration cannot be reused as is. One of the two existing leachfields will be reused, and one of the existing septic tanks, one existing leachfield, and existing lift station will be abandoned.
  - A variance will likely be required as the existing system is not shown as mounded in DOH's records.
- Install 1 new ATU with deadman anchoring/concrete collars to serve 1,000 GPD.
  - Lift station, UV disinfection, NSF/ANSI 245 rating likely to be required.
- ROM cost estimate: $235,000 – $355,000.

IWS Option 4 (2 New ATUs and Reuse 2 Existing Leachfields - IWS Permit No. 20814)

- Assessment required due to no thorough as-builts in DOH records, to include:
  - Partial excavation to verify construction details.
  - Groundwater depth measurement abut/adjacent to leachfield.
  - Percolation/infiltration testing.
- Existing IWS: 2 existing leachfields in parallel (total 1,500 GPD per DOH IWS Permit No. 20814), each 510 SF.
  - DOH prohibits IWS capacities >1,000 GPD; current configuration cannot be reused as is. The two existing leachfields will be reused, each as independent leachfields and each connected to a new ATU. The existing two septic tanks and existing lift station will be abandoned.
  - A variance permit will likely be required as the existing system is not shown as mounded in DOH's records
- Install 2 new ATUs with deadman anchoring/concrete collars to serve a total of 2,000 GPD (1,000 GPD each IWS).
  - Lift station, UV disinfection, NSF/ANSI 245 rating likely to be required.

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- ROM cost estimate: $365,000 – $555,000.

If Options 1 or 3 are selected, the current Medium Comfort Station conceptual design can be utilized. If Options 2 or 4 are selected, the Medium Comfort Station conceptual design must show clear separation of plumbing between the men's and women's restroom.

Boat Wash Facility IWS (Oil Separator)

The existing boat wash facility is served by a 2-compartment concrete oil separation tank and a 1-compartment polyethylene oil separation tank in series, and are connected to a 682 SF H-20 traffic rated leachfield IWS per DOH IWS Permit No. 18534 dated 5/5/1992. This IWS is permitted for a design capacity of 1,500 GPD, and is presently in operation. Should any renovations or upgrades to the boat wash facility be performed and will require a building permit, or the existing IWS requires replacing, a new IWS will likely be required by DOH and shall have a maximum capacity of 1,000 GPD per HAR §11-62 and DOH regulation. Should the boat wash facility remain as-is, continued use of the existing system is actively permitted and may remain in current operation, unless otherwise directed by DOH.

Appendix C

Biological Survey

Table 1. Species List

STATUS KEY:			ABUNDANCE KEY:		
A= Alien Species (Intoduced by man after the arrival of Capt. Cook in1778)	**E**= Endemic Species (Only found in Hawaii)		**1**= Low Occurrence <5 times in each site it was found in. Letters parentheses (ABC) tell which site the relative abundance refers to		
P= Polynesian Intro. (Introduced by Polynesians prior to 1778)	**I**= Indigenous Species (Native to Hawaii and elsewhere)		**2 -4**= Relatively Low to Abundant within each site it occurred. **5**= Dominant relative to all other species; found throughout site, ex. bottom to top of stairs.		

Family	*Species*	Hawaiian Name	Common Name	Status	Abundance
EUDICOTYLEDONES					
AMARYLLIDACEAE					
	Crinum asiaticum		Spider Lily	A	2
ANACARDIACEAE					
	Sapondias dulcis		Vi Apple	A	1
APOCYNACEAE					
	Plumeria sp.	Puamelia	Plumeria; Frangipan	A	1
ARIALACEAE					
	Schefflera actinophylla	He’e	Umbrella Plant; Octopus Tree	A	2
ASTERACEAE					
	Bidens pilosa	Kīnehe; Ko’oko’olau haole	Spanish Needle; Beggar’s Tick	A	2
	Conyza canadensis	Lani Wela	Horseweed	A	3
	Wedelia acapulcensis		Wedelia	A	2
	Xanthium strumarium		Rough Cocklebur	A	1
BIGNONIACEAE					
	Spathodea campanulata		African Tulip	A	2
BORAGINACEAE					
	Cordia subcordata	Kou	Sea Trumpet; Beach Cordia	I	1
BROMELIACEAE					
	Aechmea blanchetiana		Bromeliad	A	1
CACTACEAE					
	Opuntia ficus-indica	Panini	Prickly Pear	A	1
CANNABACEAE					
	Trema orientalis		Gunpoweder Tree	A	1
CASUARINACEAE					
	Casuarina equisetifolia		Ironwood Tree	A	3

CLUSIACEAE					
	Clusia rosea		Autograph Tree	A	1
COMBRETACEAE					
	Terminalia catappa	Kamani Haole	Tropical Almond	A	2
CONVOLVULACEAE					
	Ipomoea pes-caprae subspecies brasiliensis	Pōhuehue	Beach Morning Glory	I	2
	Ipomoea sp.		Small purple morning glory	A	2
EUPHORBIACEAE					
	Aleurites molucanna	Kukui	Candlenut Tree	P	1
	Euphorbia hirta		Hairy Spurge	A	3
	Ricinus communis	Pā'alai	Castor Bean	A	2
FABACEAE					
	Canavalia cathartica	Maunaloa		A	2
	Desmodium incanum	Ka'imi	Spanish clover	A	3
	Falcataria mollucana		Albizia; Moluccan Albizia	A	1
	Indigofera spicata		Creeping indigo	A	3
	Indigofera suffruticosa	'Iniko 'Inikoa, Kolū	Upright indigo	A	2
	Leucaena leucephalla	Koa Haole		A	1
	Mimosa pudica		Sleeping grass; Sensitive plant	A	3
	Mucuna gigantea	Ka'e'e'e	Sea Bean	I	1
	Neonotonia wightii		Glycine, tinaroo	A	3
	Senna surattensis		Scrambled Egg Plant	A	2
	Vigna marina	Nanea; Mōhihihi; Lemu Makili	Beach pea	I	2
GOODENACEAE					
	Scaevola taccada	Naupaka Kahakai		I	2
LAURACEAE					
	Persea americana	Pea	Avocado	A	1
MALVACEAE					
	Hibiscus tiliaceus	Hau	Sea Hibiscus	P	2
	Thespesia populifolia	Milo	Portia Tree; Sea Mallow	P	2
MORACEAE					
	Ficus microcarpa		Java Plum	A	2
MYRTACEAE					
	Syzigium cumini		Java Plum	A	2
NYCTANGINACEAE					
	Bouganvillea spectabilis		Paper Flower	A	1
PANDANACEAE					

	Pandanus tectorius	Hala; Pū Hala	Screw Pine	A	1
PLANTAGINACEAE					
	Plantago lanceolata		Narrow Leaved Plantain	A	3
	Plantago major		Broad Leaved Plantain	A	3
SCROPHULARIACEAE					
	Buddleja asiatica		Dog Tail	A	2
SOLANACEAE					
	Solanum americanum	Pōpolo, ʻOlohua, Polopolo, Pōpolohua	Glossy Nightshade	I	1
STERCULIACEAE					
	Waltheria indica	ʻUhaloa		I	4
VERBENACEAE					
	Stachytarpheta jamaicensis	Oī	Blue Rat Tail	A	2
MONOCTYLEDONES					
	Syngonium podophyllum		Arrowhead Plant	A	1
ARACEAE					
	Syngonium podophyllum		Arrowhead Plant	A	1
ARECACEAE					
	Adonidia merrillii		Manila Palm	A	1
	Cocos nucifera	Niu	Coconut	I	2
	Pritchardia hillebrandii Cultivated *ENDANGERED SPECIES*	Loulu lelo	Molokai Fan Palm	E	1
	Pritchardia remota Cultivated *ENDANGERED SPECIES*	Loulu	Nīhoa Fan Palm	E	1
	Washingtonia robusta		Mexican Fan Palm	A	1
ASPARAGACEAE					
	Cordyline fruticosa	Lā'ī	Ti; Ti Leaf	P	1
	Dracaena fragrans		Fragrant Dracaena	A	1
	Dracaena reflexa		Song of India	A	1
	Dracaena trifasciata		Mother-in-law's tongue	A	1
COMMELINACEAE					
	Tradescantia spathacea		Rhoeo	A	1
CYPERACEA					
	Cyperus alternifolius		Umbrella sedge	A	1
	Cyperus rotundus		Purple Nut Sedge	A	3
LILIACEAE					
	Crinum asiaticum		Slides Lily	A	2
MUSACEAE					

	Musa acuminata		Banana	A	1
PLANTAGINACEAE					
	Plantago lanceolata	Laukahi Haole	Slender Plantago	A	3
	Plantago major	Laukahi Haole	Broad leaf Plantago	A	3
POACEAE					
	Cenchrus echinatus		Sandbur	A	3
	Cynodon dactylon		Bermuda grass	A	3
	Digitaria spp.		CrabGrass	A	3
	Paspalum conjugatum		Hilo Grass	A	2
	Paspalum vaginatum		Seashore Paspalum	A	3
	Megathyrsus maximus		Guineagrass	A	5
	Stenotaphrum secundatum		St. Augustine Grass	A	4
Ferns					
	Phymatosorus grossus	Laua'e	Maile Scented Fern	A	2
Bees and Wasps					
APIDAE					
	Apis mellifera		European Honey Bee	A	2
	Xylocopa snoring		Sonoran Carpenter Bee	A	1
VESPIDAE					
	Paravespula vulgaris		Common Yellowjacket	A	1
Gastropods					
SPIRAXIDAE					
	Euglandina rosea		Rosey Wolf Snail	A	1
Birds					
ESTRILDIDAE					
	Lonchura punctulata		Nutmeg Mannikin	A	2
PHASIANIDAE					
	Gallus gallus subspecies domesticus	Moa	Domesticated Chicken	A	2
PASSERIDAE					
	Passer domesticus		House Sparrow	A	1
STURNIDAE					
	Acridotheres tristis		Common Myna	A	1

ZOSTEROPIDAE					
	Zosterops japonicus		Mejiro; Japanese White-ēhē	A	1
Mammals					
FELIDAE					
	Felis catus	Popoki	Cat	A	1
Reptiles					
DACTYLOIDAE					
	Anolis sangrei		Cuban Brown Anole	A	1
Fish					
CARANGIDAE					
	Carangoides ferdau	Pāpio	Barred Jack	I	1
CICHLIDAE					
	Sarotherodon melanotheron		Blackchin Tilapia	A	3
ELIOTRIDAE					
	Eliotris sandwicensis	‘O’opu Akupa	Flathead Stream Goby	E	1
KUHLIIDAE					
	Kuhlia xenura	Āholehole	Hawaiian Flagtail	E	3
MUGILIDAE					
	Mugil cephalus	‘Ama’ama	Striped Mullet	I	1
	Neomyxus leusiscus	Uouoa	Sharpnosed Mullet	I	2
OXUDEROCIDAE					
	Stenogobius hawaiiensis	O’opu Naniha	Molokai Fan Palm	E	1

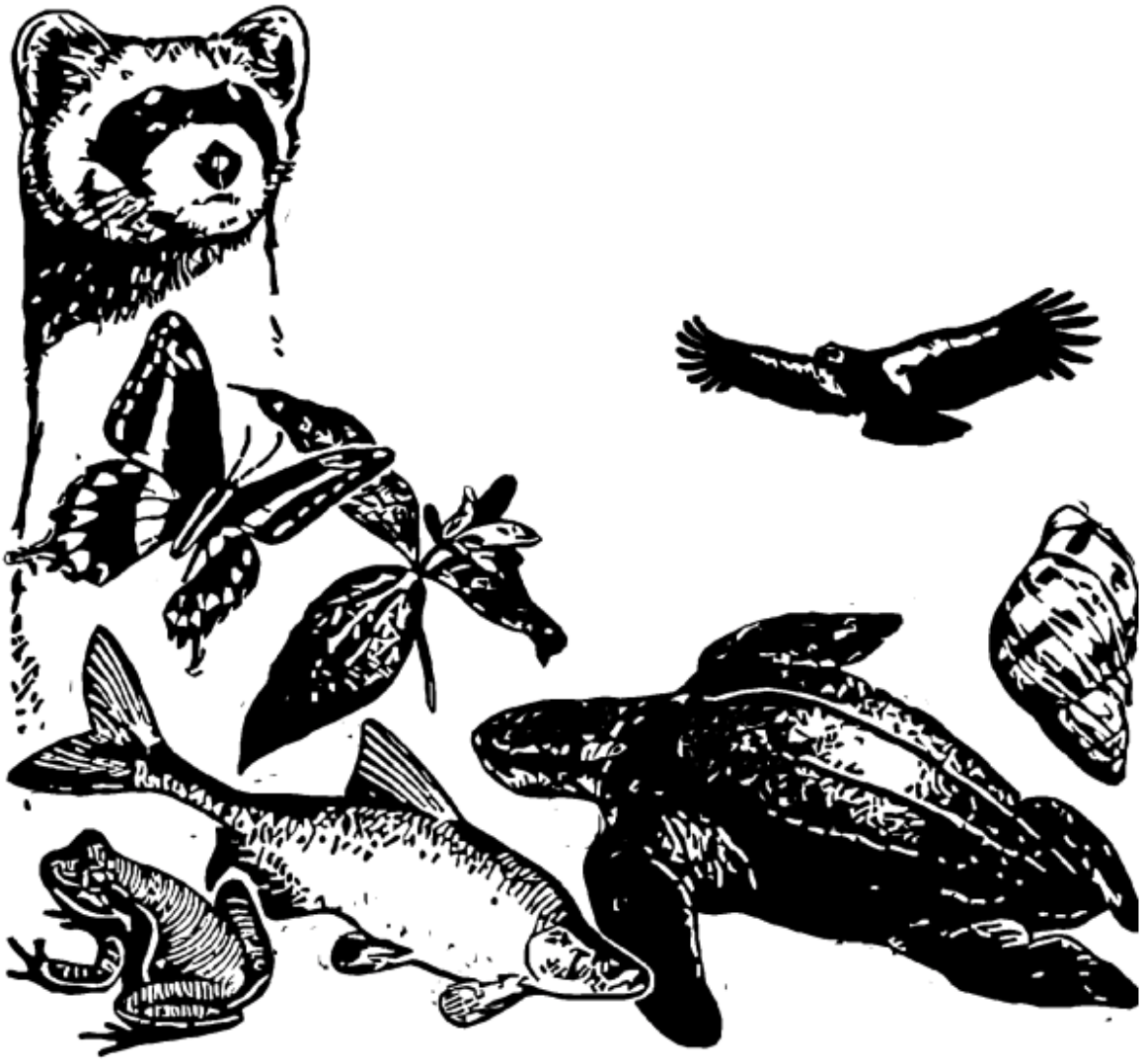
Appendix D

Information for Planning and Consultation

U.S. Fish & Wildlife Service

General Project Design Guidelines (10 Species)

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IPaC - Information for Planning and Consultation (https://ipac.ecosphere.fws.gov/): A project planning tool to help streamline the U.S. Fish and Wildlife Service environmental review process.

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Hawaiian Hoary Bat - Pacific Islands Fish And Wildlife Office 5
Green Sea Turtle - Pacific Islands Fish And Wildlife Office 6

Species Document Availability

Species with general design guidelines

- Band-rumped Storm-petrel *Hydrobates castro*
- Green Sea Turtle *Chelonia mydas*
- Hawaiian Common Gallinule *Gallinula galeata sandvicensis*
- Hawaiian Coot (alae Ke`oke`o) *Fulica alai*
- Hawaiian Duck *Anas wyvilliana*
- Hawaiian Goose *Branta (=Nesochen) sandvicensis*
- Hawaiian Hoary Bat *Lasiurus cinereus semotus*
- Hawaiian Petrel *Pterodroma sandwichensis*
- Hawaiian Stilt *Himantopus mexicanus knudseni*
- Newell"s Shearwater *Puffinus newelli*

Species without general design guidelines available

- Carter's Panicgrass *Panicum fauriei var. carteri*
- Cyperus pennatiformis
- Hawksbill Sea Turtle *Eretmochelys imbricata*
- Hilo Ischaemum *Ischaemum byrone*
- Ihi *Portulaca villosa*
- Makou *Peucedanum sandwicense*
- Microlepia strigosa var. mauiensis
- Santalum involutum
- Short-tailed Albatross *Phoebastria (=Diomedea) albatrus*

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General Project Design Guidelines - Hawaiian Common Gallinule, Pacific Islands Fish And Wildlife Office

https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6934.pdf

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General Project Design Guidelines - Hawaiian Goose, Pacific Islands Fish And Wildlife Office

https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6925.pdf

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General Project Design Guidelines - Band-rumped Storm-petrel, Pacific Islands Fish And Wildlife Office

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General Project Design Guidelines - Hawaiian Hoary Bat, Pacific Islands Fish And Wildlife Office

https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6477.pdf

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General Project Design Guidelines - Green Sea Turtle, Pacific Islands Fish And Wildlife Office

https://ecos.fws.gov/docs/tess/ipac_project_design_guidelines/doc6929.pdf

Appendix E

Archaeological Reports

November 6, 2024

Attn: Kawika McKeague & Kira Ramos of Group 70
111 S. King St., Suite 170
Honolulu, HI 96813

Letter Field Report
Black Pot Beach Park*, Hanalei, Halele'a, Kaua'i*

This letter report documents a field visit to Black Pot Beach Park by Dominique Cordy, Nohopapa, and Wayne "Palala" Harada, Kaua'i Island Burial Council (KIBC) to identify the location of an iwi kupuna reinterment site at the park. The reinterred iwi is a single bone fragment found during a 2016 Archaeological Inventory Survey (AIS) done by Cultural Surveys Hawai'i (CSH). The reinterment location was previously un-recorded.

The 2016 AIS (Kamai 2016: 55) found the iwi in Test Trench 2 during subsurface AIS testing at the park. Missy Kamai, an experienced local Kaua'i Island archaeologist concluded that the iwi fragment was in a disturbed layer, however it is associated with a local cultural soil layer, a "dark gray sandy loam consistent with the local A horizon" that was found in the area during testing. It is probable the iwi fragment is local and from previous grading, landscaping, flood or other ground disturbance. A map and excerpt from the 2016 AIS is attached as Enclosure C (Kamai, 2016" 60, 73-74), showing the location the iwi was found in 2016, a sample of the area soils it TU2, and a brief description of the remains.

The recent field visit was to record the location where the iwi kupuna was *re-interred*, for the purposes of appropriate protection and planning during the Black Pot Beach Park expansion. At the time of re-interment Mr. Harada, with the KIBC, was present. When he arrived, the iwi was placed in a paper bag in a depression near a stump just south (ma uka) of a mature false Kamani, and southeast off the corner of the old Hanalei Canoe Club building. This was prior to the recent gravelling and eastward expansion of the parking lot. He remembered, that because of concerns of flooding in the area (common spillover of the nearby pond into the river) the iwi was placed into a lauhala box and settled 2-3 feet deep just north, riverside, off the stump.

When Mr. Harada and I visited the site, the stump was gone and there was a gravel parking lot with two concrete barriers nearby. We located the stump site (it was removed and a gravel filled depression remained with a telephone pole wire pinned to a stake at its center (see photos Enclosure B), it was flanked on either side by the concrete barriers. The reinternment location is within TMK (4) 5-5-001:034. Based on the heavy area alteration and removal of the stump a precise location is unavailable; however, Mr. Harada was confident the general area was correct. See maps and sketch map in Enclosure A for details.

Mr. Harada suggested moving the two westernmost concrete blocks back (south) a couple feet to allow for a buffer, since they are currently in line w/ the removed stump. He asked if an area could be preserved from the false kamani tree (NNE) to the existing fence (west) to concrete barriers (south) to protect the existing iwi and as a location for any future re-interments, which, in his experience he though likely considering the current fragment and the history of the area. Ensuring cars cannot drive over the area and appropriate signage could be erected were also asks in design consideration.

Mālama,
Dominique

Dominique Leu Cordy, M.A.
Nohopapa Hawai'i, Principal
dominique@nohopapa.com

Enclosure A – Maps



Figure 1. Older Imagery (before parking lot expansion) with depictions of the reinterment area and notable surrounding features.



Figure 2. Map with more updated imagery showing the reinterment area in relation to current parking area. It is likely based on the site visit the general circle would shift south a bit more (due to imagery and gps offset).

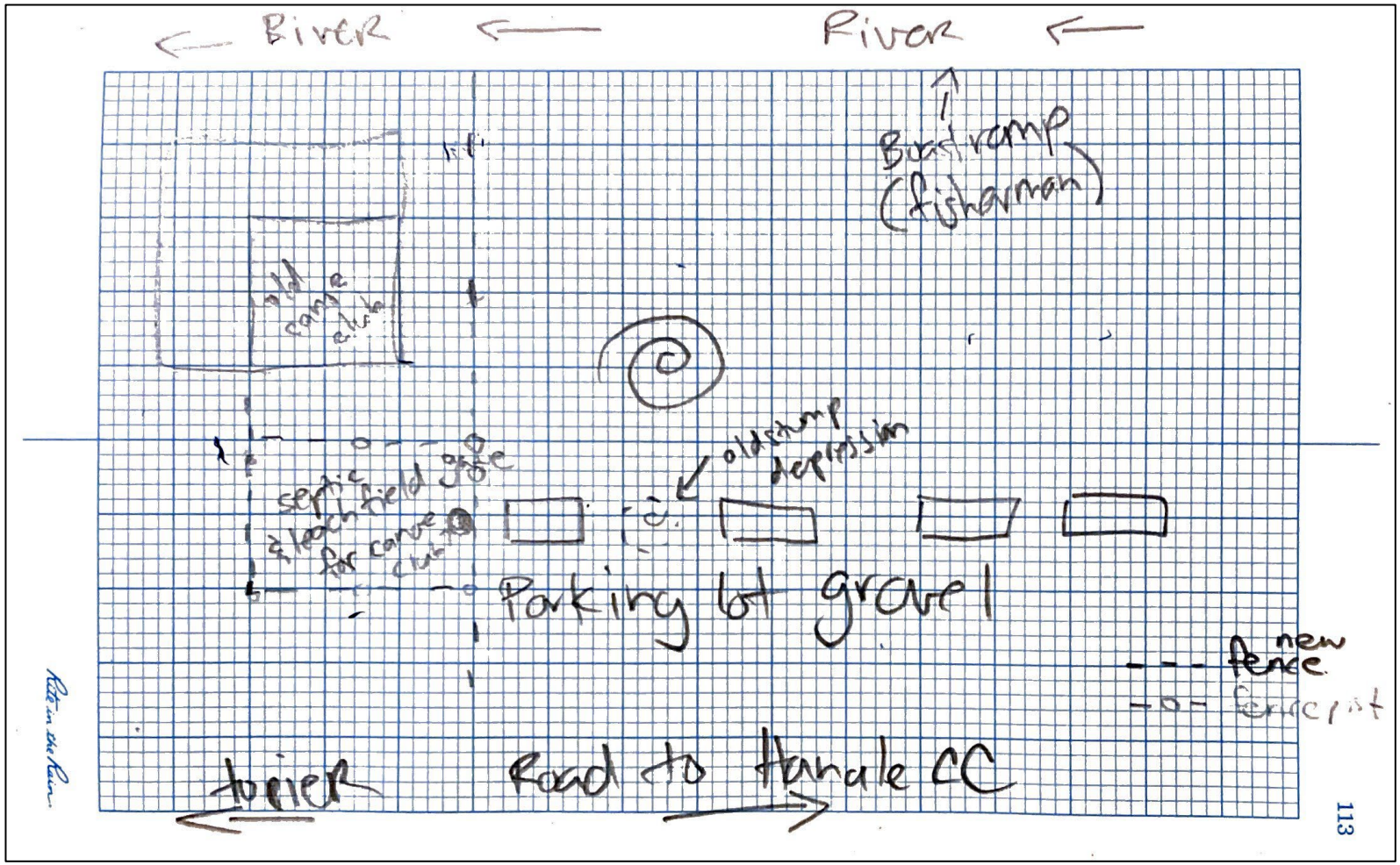


Figure 3. Sketch map of features described in site visit bounding iwi kupuna reinterment location. Reinterment area is north of stump, SW of tree and east of leach field and sceptic tank, just to the SSW of the old canoe club hale.

Enclosure B



Photograph 1. Facing north, riverside, standing in gravel parking lot. Old Hanalei Canoe Club is to the NW (left), false Kamani tree to the NE (right). Gate to septic tank and leach field center left. At center is the remains of the stump referenced by Mr. Harada, a metal pin w/ a wire connected to the telephone pole (off frame west, left). Concrete barriers marking north end of parking area and flanking old stump site visible.



Photograph 2. A copy of photo 1 with a blue circle around former stump location and yellow highlighting indicating the likely area of re-interment.

Enclosure C
Pages 60, 73-74 excerpted from:

Kamai, Nancine "Missy", William Folk, & Hallett Hammatt
2016 *Archaeological Inventory Survey Report for the Hanalei Black Pot Beach Park Expansion Project, Hanalei Ahupua'a, Hanalei District, Kaua'i, TMKs: [4] 5-5-001:004, 008, 011, 033, 034, 049 and North Extreme of Weke Road*. On file at Hawai'i State DLNR-SHPD, Kapolei, Hawai'i.

Section 6 Site Description

A single fragment of human remains was identified within Backhoe Trench 2 (T-2) in the current project area during this AIS. It is summarized in Table 10 and its placement is depicted on Figure 42.

Table 10. Historic Property Identified within the Current Project Area

SIHP #	Formal Type	Function
50-30-03-2277	Human Burial	Human Interment

6.1 SHIP # 50-30-03-2277

FORMAL TYPE:	Human burial
FUNCTION:	Human interment
NUMBER OF FEATURES:	0
AGE:	Indeterminate
TEST EXCAVATIONS:	T-2
TAX MAP KEY:	
LAND JURISDICTION:	Kaua‘i County
PREVIOUS DOCUMENTATION:	None

SIHP # -2277 consists of a single fragment of human remains identified during the subsurface testing of the AIS of the current project area. The skeletal fragment was discovered while excavating Backhoe Trench 2 (T-2). The fragment was discovered in the back dirt and displayed an association with the Stratum I layers of landscaping fill based on material adhering to the bone. No other human remains were identified during the trenching of T-3. The GPS location is 448992E/2456489N (UTM Zone 4N; NAD 83).

The disarticulated skeletal fragment was discovered 12 February 2015 and confirmed on 19 February 2015 by CSH’s Forensic and Biological Anthropologist Malina Reveal, M.Sc. The skeletal fragment was identified in the back dirt during subsurface testing within the current project area in T-2. T-2 measured 6.2 m (l) by 1.1 m (w) by 1.25 m (d). The skeletal fragment was identified as the left distal tibia fragment of an adult. It was determined that the fragment is likely Native Hawaiian based on archaeological sediment evidence and geographical location (Reveal 2015). See Appendix B for the Osteological Field Investigation Report.



Figure 42. Location of SIHP # -2277 in Backhoe Trench 2 (T-2) within the current project area (Google Earth 2013)



Figure 28. Photograph of T-2 east sidewall, view to south

Final

Archaeological Inventory Survey Report for the Hanalei Black Pot Beach Park Expansion Project, Hanalei Ahupua‘a, Hanalei District, Kaua‘i TMKs: [4] 5-5-001:004, 008, 011, 033, 034, 049 and North Extreme of Weke Road

Prepared for
HHF Planners

Prepared by
Nancine “Missy” Kamai, B.A.,
William H. Folk, B.A.,
and
Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: HANALEI 18)

August 2017

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Management Summary

Reference	Archaeological Inventory Survey Report for the Hanalei Black Pot Beach Park Expansion Project, Hanalei Ahupua‘a, Hanalei District, Kaua‘i, TMKs: [4] 5-5-001:004, 008, 011, 033, 034, 049, and North Extreme of Weke Road (Kamai et al. 2017)
Date	August 2017
Project Number(s)	Cultural Surveys Hawai‘i, Inc. (CSH) Job Code: HANALEI 18
Investigation Permit Number	CSH completed the archaeological inventory survey (AIS) fieldwork under archaeological fieldwork permit number 15-03, issued by the Hawai‘i State Historic Preservation Division (SHPD) per Hawai‘i Administrative Rules (HAR) §13-13-282.
Agencies	State: State of Hawai‘i Department of Land and Natural Resources, State Historic Preservation Division (SHPD) County: County of Kaua‘i, Parks Division
Land Jurisdiction	Owner, County of Kaua‘i, Parks Division
Project Proponent	HHF Planners
Project Funding	County of Kaua‘i
Project Location	The project area is located on the east side of Hanalei Bay at the north end of Weke Road just north of the Hanalei Pier and south of the Hanalei River mouth, in Hanalei Ahupua‘a, Hanalei District, Kaua‘i, TMKs: [4] 5-5-001:004, 008, 011, 033, 034, and 049. Planned areas for park expansion include other parcels as well as accreted land and beach sands that are not in the current AIS project area. The project area is depicted on a portion of the 1996 Hanalei U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle.
Project Description	The proposed project includes future development activities related to the expansion of the beach park. The exact nature and extent of development has yet to be determined.
Project Acreage	The project land area totals approximately 2.7 hectares (6.62-acres).
AIS Scopei	This AIS focused on archaeological historic properties and burial sites per the guidelines of HAR §13-276. The identification, documentation, and evaluation of in-use potential architectural historic properties, such as historic buildings and structures, was outside the scope of this AIS. Throughout this report the term “historic properties” is used and should be generally understood to refer to archaeological historic properties, unless otherwise stated.
Area of Potential Effect (APE)ii and Survey Area Acreage	Based on available information, the proposed beach park expansion project will impose effects to the known historic property. The Black Pot Beach Expansion APE is the same as the project area. The survey included the entire 2.7 hectare (6.62-acres) APE/project area, and the

	subsurface testing areas for the current investigation included areas of potential development.
Historic Preservation Regulatory Context[iii]	This AIS investigation fulfills the requirements of HAR §13-13-276 and was conducted to identify, document, and assess significance of any historic properties. This document is intended to support the proposed project's historic preservation review under Hawai‘i Revised Statutes (HRS) §6E-8 and HAR §13-13-275, as well as the project's environmental review under HRS §343. It is also intended to support any project-related historic preservation consultation with stakeholders, such as state and county agencies and interested Native Hawaiian Organizations (NHOs) and community groups. The identification and treatment of human skeletal remains discovered during this AIS investigation complied with Hawai‘i State burial law (HRS §6E-43 and HAR §13-13-300).
Fieldwork Effort	Fieldwork was accomplished on 11, 12, and 19 February 2015 by William Folk, B.A., Gerald Ida, B.A., Missy Kamai, B.A., and Malina Reveal, M.Sc., under the general supervision of Hallett H. Hammatt, Ph.D. This work required approximately 8 person-days to complete.
Historic Properties Identified and Historic Property Significance[iv]	One historic property was identified: State Inventory of Historic Places (SIHP) # 50-30-03-2277. SIHP # -2277, human skeletal fragment is assessed as significant per HAR §13-275-6 Criteria "d" and "e."
Effect Recommendation[v]	According to the conceptual plans, SIHP # -2277 will be affected if construction activities are conducted. Under Hawai‘i State historic preservation review legislation, CSH's project-specific effect determination is "Effect, with proposed mitigation commitments."
Mitigation Recommendations	CSH recommends project construction proceed under an archaeological monitoring program. CSH recommends the burial identified during this AIS (SIHP # -2277) be treated according to the provisions of burial treatment plan(s) to be prepared in accordance with HAR §13-300-33.

[i] An "archaeological inventory survey" is defined as "the process of identifying and documenting the archaeological historic properties and burial sites in a delineated area, gathering sufficient information to evaluate significance of the historic properties and burials, and compiling the information into a written report for review and acceptance by the department [SHPD]" (HAR §13-276-2). An archaeological inventory survey report must contain documentation, arguments and reasoning, and mitigation commitments to support the completion of historic preservation review steps one through four for archaeological historic properties.

[ii] "Project Area" is defined (HAR §13-284-2) as "the area the proposed project may potentially affect, either directly or indirectly. It includes not only the area where the proposed project will take place, but also the proposed project's area of potential effect." "Effects include, but are not limited to, partial or total destruction or alteration of the historic property, detrimental alteration of the properties' surrounding environment, detrimental visual, spatial, noise or atmospheric impingement, increasing access with the chances of resulting damage, and neglect resulting in deterioration" (HAR §13-284-7(b). Based on these definitions of "project area" and "effects" there is potential for project effects to historic properties to extend outside the footprint of project construction. Accordingly a definition and justification of the "project area" and "area of potential effect" employed in the AIS study is required.

[iii] The State of Hawai‘i historic preservation review process is designed to identify and mitigate a project's impacts to significant historic properties. Historic properties are defined as "any building, structure, object, district, area, or site, including *heiau* [temple] and underwater site, which is over fifty years old" (HAR §13-284-2). The six potential historic preservation review steps include the following: 1) identification and inventory, to determine if historic properties are present in the project's area and, if so, to identify and document (inventory) them; 2) evaluation of historic property significance; 3) determination of project effect (impact) on significant historic properties; 4) mitigation commitments that commit to acceptable forms of mitigation in order to properly handle or minimize impacts to significant historic properties; 5) detailed mitigation plan, scope of work to properly carry out the general mitigation commitments; and 6) verification of completion of detailed mitigation plan (HAR §13-284-3). A project's effect and potential mitigation measures are evaluated based on the project's potential impact to "significant" historic properties (those historic properties determined significant following their evaluation of significance [HAR §13-284-6]).

[iv] Once a historic property is identified, then an assessment of significance shall occur pursuant to HAR § 13-284-6. To be significant, a historic property shall possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following significance criteria: "a" be associated with events that have made an important contribution to the broad patterns of our history; "b" be associated with the lives of persons significant in our past; "c" embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master, or possess high artistic value; "d" have yielded, or is likely to yield, information important for research on prehistory or history; or "e" have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations being important to the group's history and cultural identity. By convention criterion "e" usually includes human skeletal remains and/or burials and religious sites.

[v] One of two effect determinations must be established: 1) "No historic properties affected," the project will have no effect on significant historic properties; or 2) "Effect, with agreed upon mitigation commitments," the project will affect one or more significant historic properties, and the effects will potentially be harmful. However, the agreed upon mitigation commitments involving one or more forms of mitigation will reasonably and acceptably mitigate the harmful effects (HAR § 13-284-7).

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Section 1 Introduction

1.1 Project Background

At the request of Ronald A. Sato of HHF Planners, Cultural Surveys Hawai‘i, Inc. (CSH) has prepared this archaeological inventory survey report (AISR) for the Hanalei Black Pot Expansion project, Hanalei Ahupua‘a, Hanalei District, Kaua‘i, TMKs: [4] 5-5-001:004, 008, 011, 033, 034, and 049. The project area is located on the east side of Hanalei Bay at the north end of Weke Road just north of the Hanalei Pier and south of the Hanalei River mouth. The project area is depicted on a portion of the 1996 Hanalei U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1), a tax map plat (Figure 2), a 2013 aerial photograph (Figure 3), and a client provided aerial photo (Figure 4).

The project area is owned in part and in acquisition by the County of Kaua‘i and the project land area totals approximately 6.62-acres. The proposed project includes some of the lands proposed for future expansion of the existing beach park. The exact nature and extent of development has yet to be determined.

1.2 Historic Preservation Regulatory Context and Document Purpose

This AIS investigation fulfills the requirements of HAR §13-13-276 and was conducted to identify, document, and make significance assessments of any historic properties. This document is intended to support the proposed project's historic preservation review under Hawai‘i Revised Statutes (HRS) §6E-8 and Hawai‘i Administrative Rules (HAR) §13-13-275, as well as the project's environmental review under HRS §343. It is also intended to support any project-related historic preservation consultation with stakeholders, such as state and county agencies and interested Native Hawaiian Organizations (NHOs) and community groups. In consultation with State Historic Preservation Division/Department of Land and Natural Resources (SHPD), the AIS investigation was designed to fulfill the State requirements for an AIS, per HAR §13-13-276.

The identification and treatment of human skeletal remains discovered during this AIS investigation complied with Hawai‘i State burial law (HRS §6E-43 and HAR §13-13-300).

1.3 Scope of Work

The following archaeological inventory survey scope of work is designed to satisfy the Hawai‘i State requirements for archaeological inventory surveys (HAR §13-276 and §13-275/284). The scope of this survey report is also in support of the identification of historic properties as a required step in the Section 106 Compliance. The scope of work tasks are as follows:

1) Historic and archaeological background research, including a search of historic maps, written records, Land Commission Award (LCA) documents, and reports from prior archaeological investigations. This research will focus on the specific project area's past land use, with general background on the pre-Contact and historic era settlement patterns of the ahupua‘a (traditional land division) and district. This background information will be used to compile a predictive model for the types and locations of historic properties that could be expected within the project area.

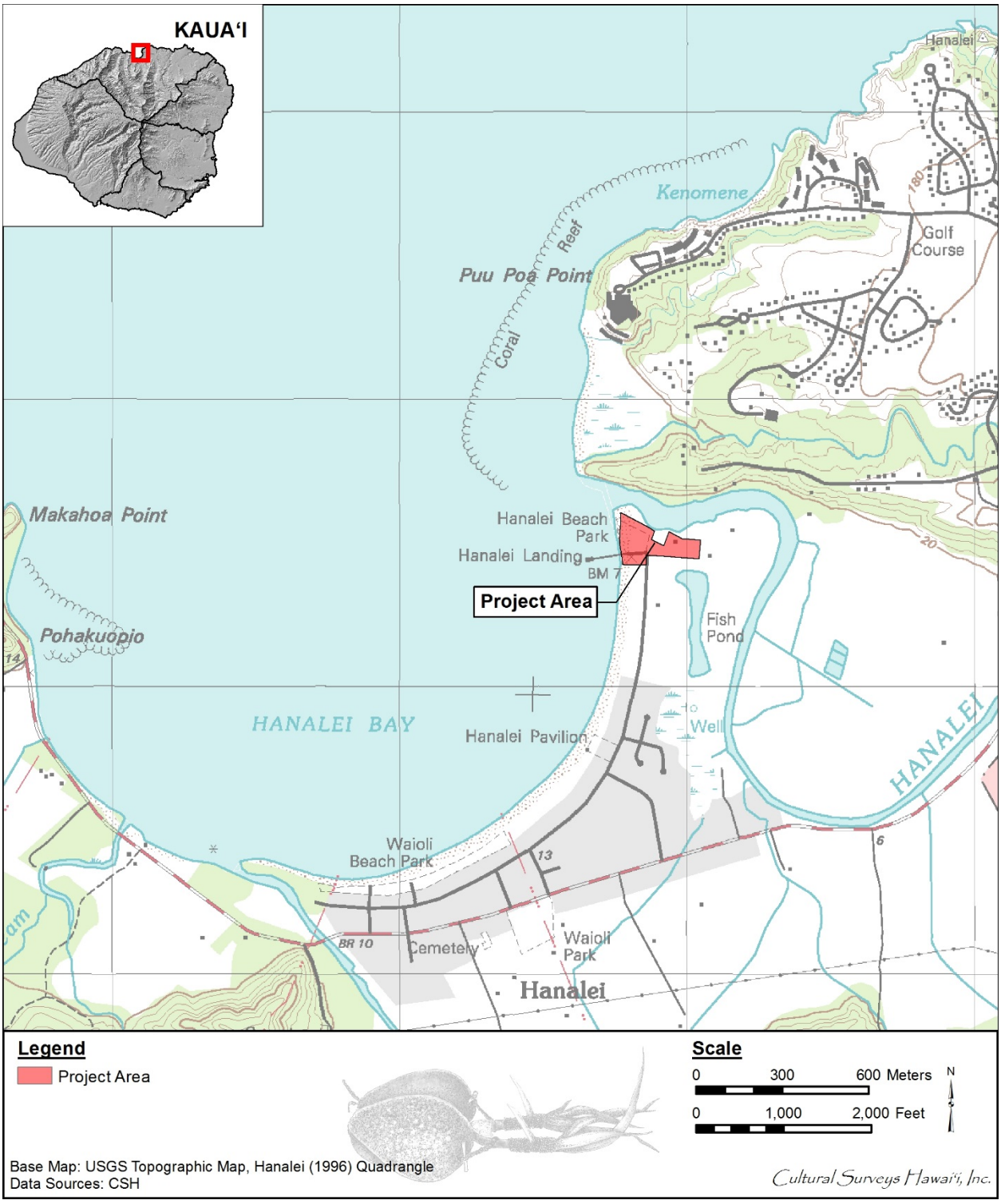


Figure 1. Portion of the 1996 USGS 7.5-minute topographic Hanalei quadrangle showing the location of the project area

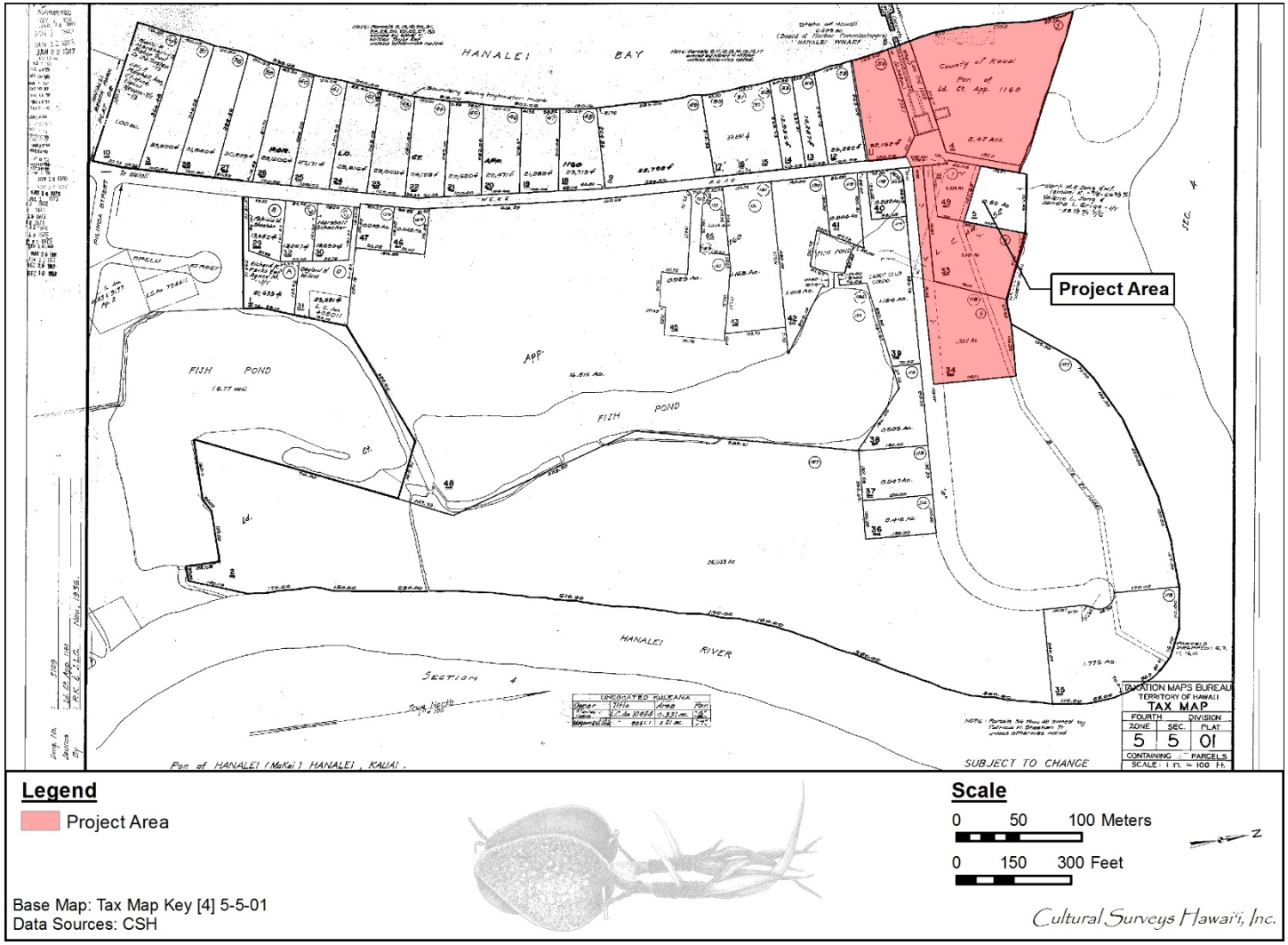


Figure 2. Tax Map Key (TMK) [4] 5-5-01 showing the project area (Hawai‘i TMK Service 2015)



Figure 3. Aerial photograph of the project area (Google Earth 2013)

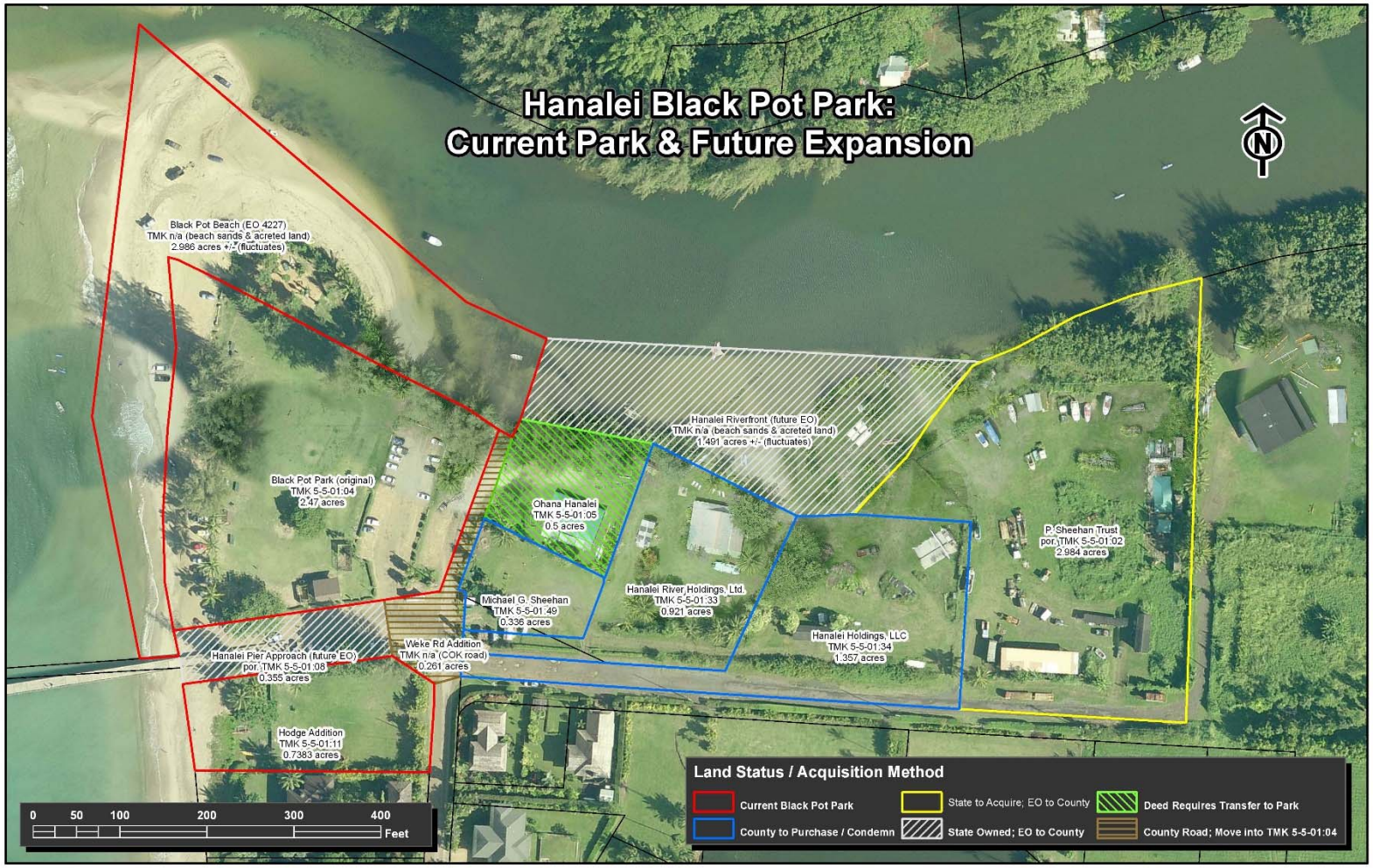


Figure 4. Client provided aerial photo showing existing beach park and proposed future expansion

2) A complete (100%) systematic pedestrian inspection of the project area to identify any potential surface historic properties. Surface historic properties will be recorded with an evaluation of age, function, interrelationships, and significance. Documentation will include photographs, scale drawings, and, if warranted, limited controlled excavation of select sites and/or features.

3) Based on the project area's environment and the results of the background research, subsurface testing with a combination of hand and backhoe excavation to identify and document subsurface historic properties that would not be located by surface pedestrian inspection may be appropriate. Appropriate samples from these excavations will be analyzed for cultural and chronological information. All subsurface historic properties identified will be documented to the furthest extent possible, including geographic extent, content, function/derivation, age, interrelationships, and significance.

4) As appropriate, laboratory work to process and gather relevant environmental and/or archaeological information from collected samples.

5) Preparation of an inventory survey report, which will include the following:

a) A project description;

b) A section of a USGS topographic map showing the project area boundaries and the location of all recorded historic properties;

c) Historical and archaeological background sections summarizing prehistoric and historic land use of the project area and its vicinity;

d) Descriptions of all historic properties, including selected photographs, scale drawings, and discussions of age, function, laboratory results, and significance, per the requirements of HAR §13-276. Each historic property will be assigned a Hawai‘i State Inventory of Historic Properties (SIHP) number;

e) A summary of historic property categories, integrity, and significance based upon the five State of Hawai‘i significance criteria;

f) A project effect recommendation;

g) Treatment recommendations to mitigate the project's adverse effect on any historic properties identified in the project area that are evaluated as significant;

h) If appropriate, a section concerning cultural consultations (per the requirements of HAR §13-276-5[g] and HAR §13-275/284-8[a][2]).

This scope of work also includes full coordination with the SHPD, and the county relating to archaeological matters. This coordination takes place following consent of the owner or representatives.

1.4 Environmental Setting

1.4.1 Natural Environment

Hanalei Ahupua‘a encompasses 68.5 sq km of land and is present between latitudes 22°13' north and 22°4'30" south and longitudes 159°27'30" east and 159°31' west. It is bounded on the west by Wai‘oli Ahupua‘a and on the east by Kalihikai Ahupua‘a. The ahupua‘a is amphitheater-shaped, defined by the ridges surrounding the Hanalei River. It extends from sea level, north at Hanalei Bay, to the top of Mt. Wai‘ale‘ale (5,148 ft) in the south. Three-quarters of the ahupua‘a lies in the Halele‘a Forest Reserve. This valley is a typical windward valley with one large perennial stream, the Hanalei River, fed by many tributaries. “Perhaps 9 km inland, the valley widens somewhat and the stream begins to meander. Here there are considerable alluvial deposits in the bends of the stream” (Earle 1978:34). Alluvial floodplains are located on both sides of the river as it meanders down to Hanalei Bay. The annual rainfall of Hanalei ranges from 75 inches to as much as 450 inches at the summit of Wai‘ale‘ale, which is considered one of the world’s rainiest areas (Foote et al. 1972:6).

Soils of Hanalei consist of the Jaucas-Mokuleia association in the coastal plains, the Hanalei-Kolokolo-Pakala association along the river bottoms and edges, as well as Rough mountainous land-Rough broken land-Rock outcrop association (Foote et al. 1972:3-6; Figure 5).

Earle (1978:29) classifies the vegetation of Hanalei according to three communities: “1) the coastal community, restricted to the sandy soils near the sea, 2) the lowland community, found on alluvial soils along the valley bottoms, and 3) the upland community, located on the rolling, heavily eroded upland soils.” Vegetation within the coastal community includes such species as ironwood (Casuarina equisetifolia) and naupaka kahakai (Scaevola sericea). Lowland community vegetation includes such species as hau (Hibiscus tiliaceous), kukui (Aleurites moloccana), java plum (Syzgium cuminii), mango (Mangifera indica), and various grasses. Upland community vegetation includes such species as ‘ōhi‘a lehua (Metrosideros polymorpha) and uluhe (Dicranopteris linearis).

Hanalei River is the largest stream system in the state (Federal Register 2002).

The present project area lies adjacent to the south side of the mouth of the Hanalei River. The approximately 6.62-acre project area extends in elevation from essentially sea level on the western end of the project area, rising up to approximately 6 ft on the eastern end of the project area. The project area is dominated by an east/west trending ridge known as Kaunu‘ōpua or alternatively as Kauakaniunu (Kikuchi 1992:3) that turns toward the mouth of the Hanalei River to the west.

Kaunu‘ōpua is a variation of the word kaulu which refers to high places such as a pali or cliff. In this case the word kaunu refers to a place high in the clouds. This would indicate it is one of the places in Papahulilani, where the heavens turn part of the Hawaiian universe. Papahulihonua is a power that turns phenomena associated with the earth, like the currents, volcanic eruptions, rivers, and streams. Therefore, Kaunu‘opua translates as that place in the heavens where clouds are formed. It is said that this is the realm of Keaomelemele, the maiden of the golden clouds or the keeper of all cloud forms. Keaomelemele is fascinated with cloud forms and has a deep love for them. Kauakaniunu is the name of a particular rain and a westerly wind which forms in the cloud

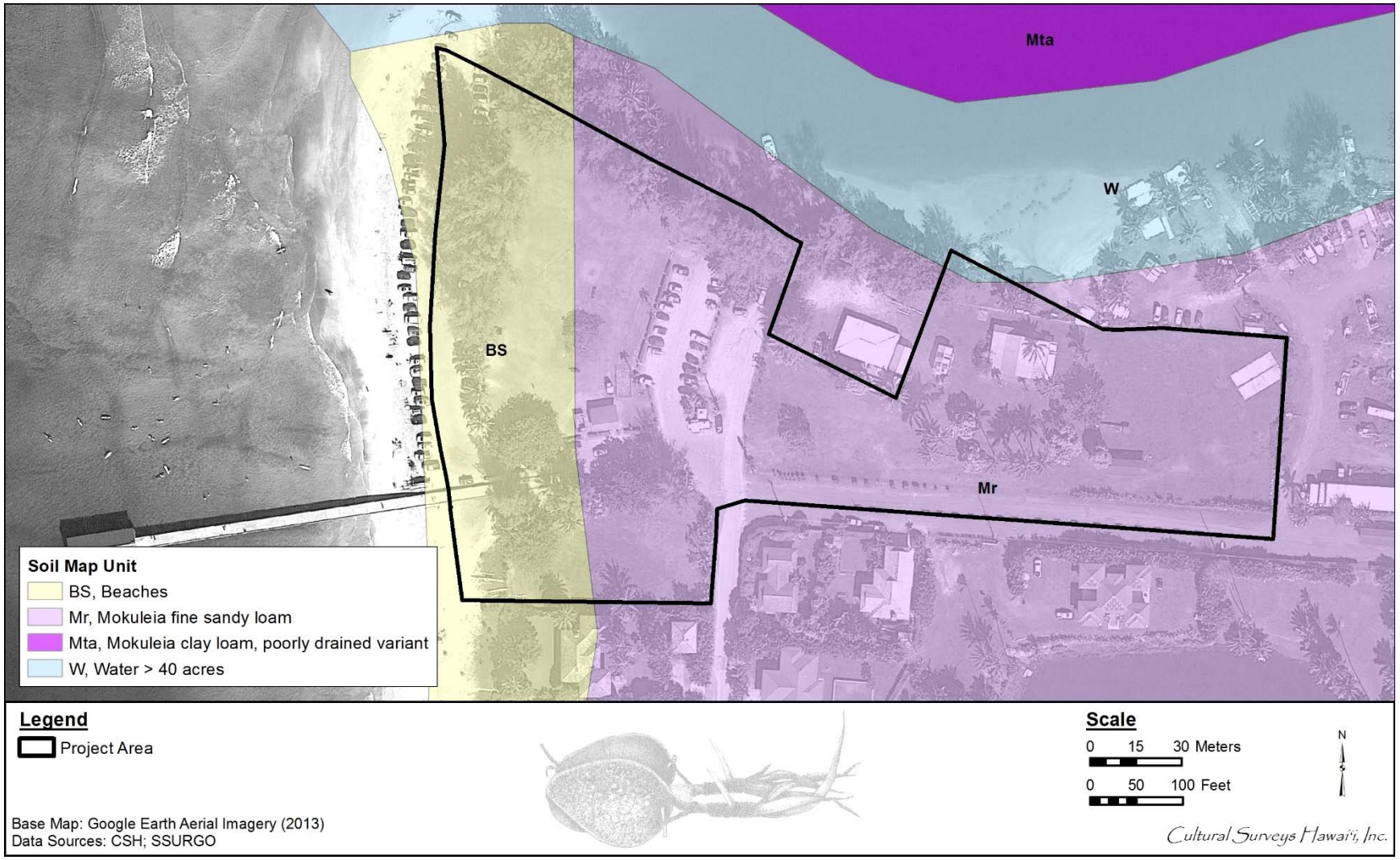


Figure 5. Overlay of Soil Survey of the State of Hawaii (Foote et al. 1972), indicating soil types within and surrounding the project area (U.S. Department of Agriculture Soils Survey Geographic Database [SSURGO] 2001)

space and falls upon this ridge. (This information was provided by Mr. Aulii Mitchell of CSH). There are other interpretations of the meaning dependent on variations in spelling.

According to the U.S. Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) database (2001) and soil survey data gathered by Foote et al. (1972), the project area's soils consist of Beaches (BS) on the west end of the project and the rest of the project area is Mokuleia Fine Sandy Loam (Mr) with just a tiny portion located in the water at the central northern end of the project area (see Figure 5). Beaches (BS) soils are described as follows:

> . . . sandy, gravelly, or cobbly areas on all the islands in the survey area. They are washed and rewashed by ocean waves. The beaches consist mainly of light-colored sands derived from coral and seashells. A few of the beaches, however, are dark colored because their sands are from basalt and andesite. [Foote et al. 1972:28]

Mokuleia Fine Sandy Loam (Mr) soils are described as follows:

> This soil occurs on the eastern and northern coastal plains of Kauai. It is nearly level. This soil has a profile like that of Mokuleia clay loam, except for the texture of the surface layer. Permeability is moderately rapid in the surface layer and rapid in the subsoil. Runoff is very slow, and the erosion hazard is slight. [Foote et al. 1972:95-96]

1.4.2 Built Environment

Presently, the project area's built environment includes portions of Weke Road along the southeastern boundary, Hanalei Beach Park on the west half of the project area, a small portion of Hanalei Wharf (Hanalei Pier) on the southwest corner, a modern but no longer used boat wash down area at the northeast corner of the project and three structures along the central north portion of the project area. The three structures consist of a large tent to the left, an open wooden structure on the right, and a bathroom in the middle. There is a small open shower area near the northwest corner of the wooden structure (see Figure 3).

Section 2 Methods

2.1 Field Methods

CSH completed the fieldwork component of this AIS under archaeological permit number 15-03, issued by the SHPD pursuant to HAR §13-13-282. Fieldwork was conducted on 11, 12, and 19 February 2015 by CSH archaeologists William Folk, B.A., Gerald Ida, B.A., Missy Kamai, B.A., and Malina Reveal, M.Sc. under the general supervision of Hallett H. Hammatt, Ph.D. This work required approximately 8 person-days to complete.

In general, fieldwork included 100% pedestrian inspection of the project (or survey) area, GPS data collection, and subsurface testing.

2.1.1 Pedestrian Survey

A 100%-coverage pedestrian inspection of the project area was undertaken for the purpose of historic property identification and documentation. The pedestrian survey was accomplished through systematic sweeps spaced 5 m apart.

2.1.2 Subsurface Testing

The subsurface testing program was backhoe assisted and involved six test excavations. In general, linear trenches measuring approximately 6 m (20 ft) long and 0.6 m (2 ft) wide were excavated within the project area focusing on the areas for proposed improvements.

A stratigraphic profile of each test excavation was drawn and photographed. The observed sediments were described using standard USDA soil description observations/terminology. Sediment descriptions included Munsell color; texture; consistence; structure; plasticity; cementation; origin of sediments; descriptions of any inclusions such as cultural material and/or roots; lower boundary distinctiveness and topography; and other general observations. Where stratigraphic anomalies or potential cultural deposits were exposed, these were carefully represented on test excavation profile maps.

Faunal remains, and diagnostic (identifiable or datable) artifacts were collected from several test excavations and were analyzed as described below.

2.2 Laboratory Methods

Materials collected during AIS fieldwork were identified and catalogued at CSH's laboratory facilities on Kaua‘i. Analysis of collected materials was undertaken using standard archaeological laboratory techniques. Materials were washed, sorted, measured, weighed, described, and/or photographed.

2.2.1 Artifact Analysis

In general, artifact analysis focused on establishing, to the greatest extent possible, material type, function, cultural affiliation, and age of manufacture. As applicable, artifacts were washed, sorted, measured, weighed, described, photographed, and catalogued. Diagnostic (dateable or identifiable) attributes of artifacts were researched.

2.2.2 Faunal Analysis

Faunal analysis will generally focus on species identification and evidence of food consumption. For collected invertebrate remains, shell midden was first separated from non-midden shell. Non-midden shell was then weighed as a bulk total with no additional analysis warranted. Shell midden was identified to the lowest possible taxa, weighed, and analyzed. Common shells were identified and analyzed using an in-house comparative collection and reference texts (e.g., Abbott and Dance 1990; Eisenberg 1981; Kay 1979; Titcomb 1979). Collected non-human vertebrate skeletal material was identified to the lowest possible taxa and analyzed using an in-house comparative collection and reference texts (e.g., Adams and Crabtree 2012; Olsen 1964; Schmid 1972; Sisson 1953). An expert in faunal analysis was used for the identification of large amounts of unidentified mammal. A catalogue of all collected material was prepared and is presented in Section 7 Results of Laboratory Analysis.

2.2.3 Disposition of Materials

Materials collected during the current AIS (excluding human remains and grave goods) will remain temporarily curated at the CSH office in Līhu‘e, Kaua‘i. CSH will make arrangements with the landowner regarding the disposition of this material. Should the landowner request different archiving of material, an archive location will be determined in consultation with the SHPD. All data generated during the course of the AIS are stored at the CSH offices.

2.2.4 Research Methods

Background research included a review of previous archaeological studies on file at the SHPD; review of documents at Hamilton Library of the University of Hawai‘i, the Hawai‘i State Archives, the Mission Houses Museum Library, the Hawai‘i Public Library, and the Bishop Museum Archives; study of historic photographs at the Hawai‘i State Archives and the Bishop Museum Archives; and study of historic maps at the Survey Office of the Department of Land and Natural Resources. Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona ‘Aina database (Waihona ‘Aina 2000).

This research provided the environmental, cultural, historic, and archaeological background for the project area. The sources studied were used to formulate a predictive model regarding the expected types and locations of historic properties in the project area.

Section 3 Background Research

The following section presents a summary of background research compiled from numerous resources. The background research provides a general narrative of traditional and historic land use within the ahupua‘a of Hanalei.

3.1 Traditional and Legendary Accounts

3.1.1 ‘Ōlelo No‘eau (Wise saying, traditional saying)

Not surprisingly, most proverbial sayings associated with Hanalei are references to the rains. One is simply Ka ua loku o Hanalei (“The pouring rain of Hanalei”) (Pukui 1983:170). Another is Lu‘ulu‘u Hanalei i ka ua nui; kaumaha i ka noe o Alaka‘i (“Heavily weighted is Hanalei in the pouring rain; laden down by the mist of Alaka‘i’) (Pukui 1983:170). Pukui (1983) explains the poetic meaning as “[a]n expression used in dirges and chants of woe to express the burden of sadness, the heaviness of grief, and tears pouring freely like rain. Rains and fogs of other localities may also be used.”

Pukui (1983:50) associates the poetical saying: Haehae ka manu, ke ‘ale nei ka wai (“Tear up the birds, the water is surging”) with Hanalei. She explains,

> Let us hurry, as there is no time for niceties. Kane‘alohi and his son lived near the lake of Halulu at Wai‘ale‘ale, Kaua‘i. They were catchers of ‘ua‘u birds. Someone falsely accused them of poaching on land belonging to the chief of Hanalei, who sent a large company of warriors to destroy them. The son noticed agitation in the water of Halulu and cried out a warning to his father, who tore the birds to hasten cooking. [Pukui 1983:50]

Wichman (1998:109) gives a very similar account (below) associated with a peak near the summit of Wai‘ale‘ale named Haehae-ka-manu-a-Kāne‘alohi-ke-ale-mai-nei-ka-wai.

A last poetic saying Me‘e u‘i o Hanalei (“The handsome hero of Hanalei”) “said of one who is attractive” (Pukui 1983:234) would seem to be a clear reference to Kauahoa (see Legends of Kawelo below).

Items particularly associated with Hanalei include the limu-kā-kanaka (limu-kā-kanaka-o-Manu‘akepa). Pukui and Elbert (1986:191) relate the following:

> A slimy blue-green algae (Nostoc commune), bright-green when fresh, growing on the shores of Hanalei, Kaua‘i, famous in song. In the wet season it covers the ground with a thin slippery layer. Lit. man-striking moss, so called because people are said to slip on it and fall. [Pukui and Elbert 1986:191]

3.1.2 The Story of Lonoikamakahiki

In the Story of Lonokamakahiki (Fornander 1919:4(2):284-285, 304-305) the ruling chief Lonokamakahiki and Kaikilani chant similar chants about various places in Hawai‘i nei including a reference to the rains of Hanalei:

O Hanalei kumu a ka ua	Hanalei, the source of the rains
I amo a haahaa	Made low from carrying such a burden

Kapaihiahilina also chants of his wanderings at Hanalei with Lonokamakahiki also focusing on the rains:

My companion of the tall pandanus . . .	He hoa i ka nahele lauhala lōloa,
The pandanus that had been partly eaten,	O ka hala i ‘āina kepaia,
Of Po‘okū in Hanalei	O Po‘okū i Hanalei-la
Thus did we two wander along, my companion,	Hala ia mao a ka ua, e ke hoa-e
Through the heavy and wind-blown rain,	He ua ka‘e‘e, ua makani,
The ceaseless and general rain.	Ua ho‘okinakina e puni e ka ua.
We drank of the ‘awa of Koukou,	Inu aku i ka ‘awa o Koukou
The fragrant leaved ‘awa of Māmalahoa.	I ka ‘awa lau hinano o Māmalahoa
Say, my companion!	E ke hoa-e!
A companion, a friend of Lono, a man,	He hoa, he ka‘upu e Lono, he kanaka
A companion of the deafening rains.	He hoa la ho‘i no ka ua, pā‘ia;
As the rain traveled in the uplands at	Hele ka ua mauka o
Hanalei iki,	Hanalei-iki
To Hanaleinui	A Hanalei-nui
One rain was from the highlands,	Mauka mai kekāhi ua
One rain was from the lowlands,	Makai mai kekāhi ua
One rain was from the east,	Ma na‘e mai kekāhi ua
One rain was from the west,	Malalo mai kekāhi ua
Along the pandanus cape of Pu‘upaoa.	Ma ka lae hala o Pu‘upaoa
It was there the rain fell on the sand,	Ilaila ka ua ho‘owalea i ke one
The sand, food of the kīna‘u,	I ke one ‘ai a ke kīna‘u,
The kīna‘u that ate of the ripe pandanus	Ke kīna‘u ‘ai hala pala
at Hanalei	I Hanalei

There is a reminiscence of when Lonoikamakahiki “ate of the ripe flowers of the pandanus of Po‘okū” (a ‘ai i ka pua pala o ka hala o Po‘okū) (Fornander 1919:4(2):360-361).

3.1.3 Legend of Kaipalaoa

In the “Legend of Kaipalaoa,” the word-smith child, the hero boy arrives at Hanalei by sea from Pōka‘ī, O‘ahu in the retinue of the ruling chief of Kaua‘i, Pueonuiokona (Fornander 1919:4(3):576-577). They meet two canoes of the chief returning with fish and the boy requests some; he chooses two relatively small insignificant fish (an Oililepa file-fish and a Kikakapu butterfly-fish) which later figure in his contest of wits at Wailua.

3.1.4 Kawelo and Hanalei

In the “Legend of Kawelo” the Kaua‘i hero was brought up with a certain kinsman, the giant Kauahoa of Hanalei who would become the most noted warrior of the ruling chief ‘Aikanaka (Fornander 1919:5(1):576-577). In a sidebar, while fishing from a canoe for uhu (parrotfish) at Ka‘ena, O‘ahu, Kawelo caught the demi-god Uhumakaikai in his net and was towed near Hanalei where his companion Ma‘akuakeke asked for that land. Kawelo returns to Kaua‘i to fight against the ruling chief ‘Aikanaka and the great warrior Kauahoa. The fighting breaks out at Wailua. Aloha for Kauahoa arose within Kawelo and he tried to avoid a fight with a kinsman (hoahānau) from his childhood days by trying to win over Kauahoa with a flowery chant, referring to Kauahoa repeatedly as “the pride of Hanalei” (ka ui o Hanalei). There are several references to Hanalei: “swollen and enlarged is the moss of Hanalei” (Pehu kaha ka limu o Hanalei) “Hanalei, the cold land, the wet land, the land where the end is” (Hanalei aina anuanu, aina koekoe, aina i ka pea i noho ai), and “Hanalei the land of rain” (O Hanalei aina ua). Kawelo appears to evoke images of the Hanalei landscape:

For the anger of Honokoa is reviling,	Maewa ana ka ukiukiu o Honokoa
At the cliff of Kalehuawehe	I ka pali o Kalehuawehe
Where the lama and wiliwili bloom,	Pua ka lama me ka wiliwili
Where the rain sweeps on the outside	O ka ua lele ma waho
of Mamalahoa	O Mamalahoa
Kauahoa the stalwart youth of Hanalei	O Kauahoa o ka meeui o Hanalei

(Fornander 1919:5(1):56-57)

Kauahoa rebuffs his overtures of peace and Kawelo then turns to one of his wives, Kanewahineikiaoha and chants:

Say, Kanewahineikiaoha	E Kanewahineikiaoha e;
your pīkoi (tripping club) throw it up	Ko pīkoi hoolei ia i luna
At Helelua, at Helelua	I Helelua, i Helelua
At the ridge-pole of Hanalei,	I kaupoku o Hanalei la.
Arise thou, Hanalei	E ala e Hanalei e
Until Kauahoa thou hast killed,	A make o Kauahoa ia oe,
When Hanalei thou shalt possess,	Ai ae ia Hanalei,
And the mats of Ni‘ihau thou shalt wear,	Aahu ae i ka pawehe o Ni‘ihau,
And the birds of Kaula thou shalt eat	Ai la oe i ka manu o Kaula

(Fornander 1919:5(1):56-57)

In another story of Kawelo (Fornander 1919:5(3):694-707), Kauahoa is actually the elder brother of Kawelo, born of the same parents, but was adopted by Haulili the great one of Hanalei (Haulii, ka mea nui o Hanalei), Kauahoa comes from Hanalei and is referred to as, “The champion of Hanalei” (Ke kamaeu o Hanalei).

In Pukui’s (1951:117-118, 122) account, following the killing of Kauahoa, Kawelo lived with his wife in Hanalei “quietly fishing and planting.”

Wichman (1998) relates the following:

> Hanalei was the home of Kauahoa, a warrior who lived about 1690. He was the last of the great giant kupua warriors, noted for his strength, size, and because he was handsome. He was born on the same day and in the same place as the future ruling chief, ‘Aikanaka, and his cousin Kaweloleimakua. In the war between these two, ‘Aikanaka did not immediately call upon Kauahoa, who angrily sat in the headwaters of the Hanalei River and dammed up the water for so long that the fish gasped in the dry bottom . . . Kauahoa is often referred to as Kame‘eu‘io Hanalei, ‘handsome hero of Hanalei,’ and this name was given to a headland in his memory. [Wichman 1998:111]

3.1.5 Legend of Palila

The Legend of Palila is a reference to a club fighting hero of Hanalei named Lupeakawaiowainiha (Fornander 1919:5(1):138-141). It was said that every time he urinated the land would be flooded.

3.1.6 Legend of Kapunohu

In the Legend of Kapunohu, the Kaua‘i hero became ruling chief of Kaua‘i by throwing his ihe spear from Kōloa through the ridge at Anahola leaving a perforation (puka), with it finally falling to earth at Hanalei (Fornander 1919:5(1):224-225).

3.1.7 Legend of Kamapua‘a

In the Legend of Kamapua‘a, the pig child delivers a chant in his anger describing the sea of Hanalei as tempestuous (kaiko‘o Hanalei e! Kaiko‘o) (Fornander 1919:5(2):350-351). Westervelt (1968) relates an account of Kamapua`a at Hanalei as follows:

> Courage came back to them [the people of Kaua‘i], and at Hanalei the people forced him [Kamapua‘a] into a corner, and, carrying stones, tried to fence him in, but he broke the walls down, tore his way through the people and fled. The high chief of Hanalei threw his magic spear at him as he rushed past, but missed him. The spear struck the mountainside near the summit and passed through, leaving a great hole through which the sky on the other side of the mountain can still be seen. [Westervelt 1968:266]

Skinner (1971) relates the following account of Kamapua‘a at Hanalei:

> So ill did he behave in Kaua‘i, assailing innocent people and destroying their taro patches, that they determined to dispatch him, and in order to have him under their advantage it was resolved to fence him in near Hanalei. The wall of mountain now existing there is the fence. Just before it was finished the prince in charge of the work sat to rest in a gap which admits the present road. He heard a harsh laugh, and looking up saw Kamapua‘a sitting on the top of Hoary Head. A running fight ensued, in which the outlaw escaped across the mountain, and the prince, hurling his spear, but missing his mark, sent the weapon through the crest of the peak,

making the remarkable window that is one of the sights of the island. [Skinner 1971:229]

3.1.8 Story of Halalii

In the story of Halalii, the king of the ghosts of O‘ahu, there was a time when O‘ahu was inhabited only by ghosts. The sole Kaua‘i survivor of an act of treachery by the O‘ahu ghosts sails to Hanalei and finds the ruling chief of Kaua‘i at that place. (Fornander 1919:5(2):432-433). With the aid of his kahuna, Namalokama they devise a plan to defeat the O‘ahu ghosts.

3.1.9 Story of the Ohelo

In the story of the Ohelo, the origin of the ‘ōhelo plant is traced to the daughter of a certain Maunakepa and the following couplet is offered (Fornander 1919:5(3):580-581):

The moss peoples the barren lands	Ka limu kaha kanaka
of Maunakepa	o Maunakepa
Spattering thereon is the rain	Kapekupeku i luna ka ua
from Hanalei, etc.	O Hanalei, a pela aku.

3.1.10 Legend of the Lovers Paalua and Kawelu

In the Legend of the Lovers Paalua and Kawelu, Pa‘alua regales the daughter of the ruling chief of O‘ahu with accounts of “the charms of his home in the vale of Hanalei”—by inference also the home of his father, the ruling chief of Kaua‘i (Thrum 1923:139). He makes specific reference to the kamani and olona that grow in the valley of Hanalei (Thrum 1923:140). Pukui’s account (1951:175) has Kawelu exclaim, “O Pa‘alua, take me to Hanalei.” They become the rulers of Kaua‘i and Ni‘ihau.

3.1.11 A Maiden from the Mu

In Pukui’s account (1951:72) of “A Maiden from the Mu” a young chief of Hanalei organizes a pig hunt in Wainiha in search of the daughter of a Hawaiian bird catcher and a Mu wahine (woman).

3.1.12 Legend of Kalelealuaka

In the Legend of Kalelealuaka, the hero of that name goes to Hanalei and defeats a resident chief of great strength in a contest of accuracy in throwing spears at a banana trunk (Thrum 1998:84).

3.1.13 Account of Kawelu

In Knudsen’s (1956:83) account of Kawelu, the Shark God, the man-eating demi-god of Wailua is said to also frequent Hanalei River.

3.1.14 Village Belle of Poki‘i

In Knudsen’s (1956:93) account of the “Village Belle of Poki‘i,” the beauty is betrothed to a man who lives in Hanalei Valley, “and is very rich, with large taro lands and many horses.”

3.1.15 Ka‘awakō Heiau

Regarding Ka‘awakō Heiau at the summit of Wai‘ale‘ale, Wichman (1998) relates the following account:

> The kilo i‘a (fish watcher) of the Mū would go to Ka‘awakō at the completion of an ‘o‘opu fish trap. Here he would make a shrine, present an offering of ‘awa, bananas and kumu taro. Then he would make a cup of olonā leaves and would chant. This completed the ritual over the fish trap, which he then would close and the fish would be caught. [Wichman 1998:109]

Regarding Haehae-ka-manu-a-Kāne‘alohi-ke-‘ale-mai-nei-ka-wai, a peak near the summit of Wai‘ale‘ale, Wichman (1998) relates the following account:

> Kāne‘alohi, a bird catcher, lived in this part of the mountains with his nephew Lauhaka. Their camp was on the cliff side of the Alaka‘i Swamp beside an open bit of water. The water of this pool rippled whenever anyone stepped into the swamp miles away. Inadvertently, they were breaking the new rules of Kalākānehina, the Waimea chief, who had forbidden the catching of ‘ua‘u birds, the dark-rumped petrel, which was good eating. Kalākānehina sent some warriors to kill the two birdcatchers, but they were warned by the rippling water as they broiled a petrel over the fire. Lauhaka called out to his uncle to tear the bird apart so they could eat it before the warriors reached them—hence the name. [Wichman 1998:109]

3.1.16 The Mo‘o Kamo‘ookamuliwai

Wichman (1998) relates an account of the mo‘o (fabulous lizard) Kamo‘ookamuliwai, “lizard of the river,” who

> was a mo‘o that guarded the river crossing. He refused to let Hi‘iaka cross the river on her way to Hā‘ena to get Lohi‘au for her sister Pele, and sent freshets of water to sweep her off her feet. Hi‘iaka struck him dead, and since that time it has not been difficult to cross the river. [Wichman 1998:111]

3.2 Pre-Contact and Early Contact Periods

The land and waters of Hanalei, at 68.5 sq km the largest ahupua‘a in the moku (district) of Halele‘a, had long afforded possibilities for agricultural and cultural development by the Hawaiians of Kaua‘i during the centuries before Euro-American contact. E.S. Craighill and Elizabeth Handy present the ahupua‘a resources that pre-Contact Hawaiians utilized and amplified:

> Hanalei is unique on Kauai in having a broad river flowing into a magnificent level seaward area . . . The flats had been the taro lo‘i of the Hawaiians, amply irrigated by ditches from the Hanalei River . . .
>
> Because of an abundance of foods of all sorts, Hanalei was, and still is, one of the most attractive dwelling places in the islands. In addition to its rich lands and water resources, and its beautiful beach, it was close enough to the rich deep-sea fishing grounds off the Nāpali coast to supply its people with plenty of fish. [Handy and Handy 1972:420–421]

Confirmation of abundance within Hanalei beyond the agricultural is given in a document of the latter nineteenth century. On 14 July 1873, Kealohanui—a Hawaiian living in Hanalei "since I was very little"—testified before the Commission of Boundaries for the Island of Kaua‘i on the boundaries of the ahupua‘a. As transcribed in the commission's proceedings, notable among the place names and landmarks along the western boundary of the ahupua‘a that Kealohanui recalled are the following:

Kaunaapi	residing place of chiefs Kauanohi & Hula house
Kaunuaholea	a starting place for races to the beach
Kapaka	stone place of worship (Heau [sic])

Apparently, the memory of places associated with the formerly rich cultural life within the ahupua‘a was sustained well into the nineteenth century.

Elsie H. Wilcox, a descendant of missionaries to Kaua‘i, writing in 1917, further characterizes Hawaiian settlement in Hanalei in the early decades of the nineteenth century:

> The settlement then extended along the beach, where the climate was drier and where fishing was available, and the grass-thatched houses were set in the midst of gardens of fruit-trees, vegetables and flowers. Bananas, breadfruit, coffee, sugar-cane, cocoanuts, sweet-potatoes, yams, squashes, pia, and taro were cultivated, and chickens and pigs raised. On account of the sandy soil and lack of water 'makai', most of the taro-patches were further up the valley, the farmer going up daily to 'mahiai' and returning at night to his home on the beach. The banks of both rivers were lined with taro-patches which, following the water-courses, extended far up into the valleys. Terraced remains of these patches are still to be seen far above present habitations, their extent indicating a goodly population at that time. The stretch of land between the two rivers, now used as rice-land (i.e. 1917), was then an undrained swamp, not available for cultivation. [Wilcox 1917:5]

3.1 The Russian Enterprise at Hanalei

The nineteenth century would see the landscape transformed by the interventions of newly arrived Euro-American missionaries, entrepreneurs, settlers and adventurers.

Early in the century, a short-lived scheme to establish the Russian Empire in the Hawaiian Islands would unfold on Kaua‘i and involve Hanalei. During a gale in the early morning hours of 31 January 1815, the Behring, a 210-ton three-master owned by the Russian-American Company, was beached at Waimea Bay on the south coast of Kaua‘i. The Behring was loaded with seal skins heading to the company's headquarters at Sitka, the capital of Russian America. Kaumuali‘i, the king of Kaua‘i, took possession of the vessel and its cargo, maintaining that anything brought to land upon Kaua‘i became the king's property.

Alexander Andreievich Baranov, the Russian-American Company's manager at Sitka, chose Georg Anton Schäffer, a German adventurer, to lead a mission to recover the cargo. Schäffer arrived on the island of Hawai‘i in November 1815, but it was not until May 1816 that he sailed for Kaua‘i aboard the company's 300-ton vessel, the Otkrytie, supported by an armed crew. Arms, however, were not needed; Schäffer found Kaumuali‘i willing to return the Behring's cargo and eager for an alliance with the Russian Empire.

Over the next few months a busy Schäffer established the Russian presence on Kaua‘i, intending to make the island a launching point for control of the entire Hawaiian chain. In September 1816, Schäffer began construction at Waimea Bay of a lava-rock walled fort to be named after the Russian Empress Elizabeth. He then gave orders for the creation of two earthen-work forts at Hanalei: one named after the Russian General Barclay de Tolly, the other constructed on a plateau overlooking Hanalei Bay on the grounds of the present Princeville Hotel, named after the Emperor Alexander. At the same time, Kaumuali‘i deeded Hanalei to Schäffer, who renamed the ahupua‘a “Schäfferthal.”

By spring 1817, Kaumuali‘i had lost confidence in Schäffer. Hearing a false report that Russia and the United States were at war, Kaumuali‘i became anxious that he had allied himself with the weaker of the two powers in the Pacific. On the morning of 8 May 1817 Kaumuali‘i, accompanied by “a thousand men” (according to Schäffer) at Waimea, ordered the Russian emissary and his compatriots off the island immediately. Aboard two company ships, they fled to Hanalei where Schäffer intended to make a stand; he wrote in his journal:

> I took possession of the island of Kauai in the name of His Majesty, the Great Emperor of Russia Alexander Pavlovich, ordered the Russian flag raised on Fort Alexander, fired three canon shots, and declared myself chief of Hanalei Valley. [Pierce 1965:202-203]

But Schäffer and the others soon realized their predicament was hopeless. In June 1817 they sailed away from Hanalei Bay and concluded the Russian venture on Kaua‘i.

3.2 Fort Barclay and Russian Enterprise at the Coast

Of particular interest to the present study area is the “lost” Russian Fort Barclay and other Russian infrastructure constructed on the coast. Little is known of Fort Barclay. On 15 November 1816 Schäffer records, “until now I have worked energetically on Forts Alexander and Barclay. Platov [Ka‘umuali‘i’s deputy, a Kaua‘i chief also known as Obana Tupigea that Schäffer named after a Russian hero] . . . works daily with his Indians on constructions of the fortifications” (Pierce 1965:186). On 25 November 1816 Schäffer wrote to Alexander Baranov, “I now have almost ready here one fortress of stone [Fort Elizabeth in Waimea] and two fortifications of earth, with palisades” [in reference to forts Alexander and Barclay at Hanalei.] (Pierce 1965:82). On 1 April 1817 Schäffer reported, “I visited the fortifications and found Forts Alexander and Barclay both nearly finished” (Pierce 1965:198). Pierce (1965) provides the following:

> Sheffer accepted the province of Hanalei and started to build two fortresses there, one [Fort Barclay] on the right side of the river Hanalei at the mouth of the harbor and another [Fort Elizabeth] on the same side of the river but much higher, at the harbor itself. Both fortresses were built of earth; however both remained unfinished. The work was being done by promyshlenniks [hunter/trappers working for the Russian American Company], with the aid of the in habitants of the province, without any aid from the king. [Pierce 1965:128]

Mills (2002:26) comments that, “These two forts [Fort Alexander and Fort Barclay], built primarily with Russian-American company labor, had low earthenwork walls, possibly with palisades.”

Samuel Whitney (1838:50) referred to one, or both of them, as a “slight breastwork,” where a few cannon were mounted.

In addition to Fort Barclay, it appears there was other Russian infrastructure on the coast as referred to in a letter from George Young (and four other Russians) to Schäffer dated 29 December 1816 reporting the murder of an Aleut working as a watchman for the Russians and the arson of a “winery” at Hanalei excerpted below:

> The boat with your messenger Fedor Leshchinskii was ready, as was the boat loaded with chalk and clay. Mr. George Young was then on the beach about to send off a letter to you. The natives left their houses and went somewhere near our buildings, which include a winery, by the lake, with [──] and masses of calabashes. They took two butts of wine and a large quantity of roots used in making alcohol. We, Mr. Young, myself, and Bologov, decided that we needed a watchman so no one, whether an Aleut, a Russian, or a kanaka, would dare to steal or rob [us of] anything. We thought we could avoid trouble that way, but just as we handed the sealed envelope to Leshchinskii, suddenly we heard a gunshot from the guard posted in the kanaka [──]. We—Captain Young, myself, Bologov, and Leshchinskii—rushed from the room. We found two men from Mr. Young’s boat whom we sent to inquire as to the cause of the shooting. We followed them ourselves and started to run along the shore; before we had covered half of the distance we met the returning men, who told us that the watchman was dead. As soon as we heard that, we saw the building burning on all sides, although there was not one Sandwich Islander to be seen. In ten minutes this unusual fire was over. The grass was burned out and we could see the dead body. Using water brought from the lake in calabashes, Mr. Young, I and the others put out the rest of the fire. We examined the body of the dead man in the presence of a large crowd. We found the cause of death—a large wound in the chest and two more in [──]. We brought the body to the house . . . [Pierce 1965:83-84]

The geography referred to is less than certain, but it appears there was a company house quite close to the mouth of Hanalei River and that a different structure, the “winery, by the lake” (evidently a thatched structure), was to the north near the present marsh. The assertion that the fire was put out “using water brought from the lake” indicates the “winery” was closer to the lake than to the coast or the Hanalei River. Notably there is no reference to Fort Barclay in the account.

3.3 The 1820s

Into the early 1820s, the Russian episode in Hanalei was apparently past remembrance. Rev. Hiram Bingham, describing a visit to Hanalei in 1821 with Kaumuali‘i and King Liholiho, makes no mention of the former Russian presence but gives details of Hawaiian culture:

> The people in their original state, treated us with such as they had. One ascended a coca-nut tree and threw down a nut. Another tore off with his teeth, the thick, fibrous husk, then cracked the shell with a stone, to give us a drink. The head man gave us a coarse dinner. A pig, baked with heated stones covered in the ground, was set before us on a large, shallow, wooden tray. Kalo, baked in the same manner, and beaten, was laid on large green leaves instead of plates, on the ground . . . Water

> was given us in a tumbler consisting of the neck of a gourd-shell, and bananas, ripe, rich, and yellow, were put into our hands singly. [Bingham 1847:143]

Three years later, in 1824, Bingham witnessed at Hanalei an example of the concerted human effort that could still be evoked by the ali‘i. The brig Pride of Hawaii, owned by Liholiho, ran aground in Hanalei Bay. Bingham proclaimed the effort by a great crowd of Hawaiians to salvage the disabled yacht as “one of the best specimens of the physical force of the people, which I ever had opportunity to observe for more than twenty years among them—indeed the most striking which I ever saw made by unaided human muscles” (Bingham 1847:221).

> The chief Kiaimakani of Waipouli passed up and down through the different ranks, and from place to place, repeatedly sung out with prolonged notes, and trumpet tongue . . . ‘be quiet—shut up the voice.’ To which the people responded . . . ‘say nothing,’ as a continuance of the prohibition to which they were ready to assent when they should come to the tug. Between the trumpet notes, the old chieftain, with the natural tones and inflections, instructed them to grasp the ropes firmly, rise together at the signal, and leaning inland, to look and draw straight forward, without looking backwards toward the vessel. They being thus marshalled and instructed remained quiet for some minutes, upon their hams. [Bingham 1847:221]

The salvage efforts ultimately failed and the brig was lost. The grounding of the Pride of Hawaii at Hanalei Bay in 1824 indicates the perils of navigation by western ships within the bay and the rest of the northern Kaua‘i coast where wind and sea conditions made impossible any secure anchorage. During subsequent decades of the nineteenth century, as increasing numbers of traders, ranchers and settlers moved into Hanalei, the bay could serve only as one, “among the many outposts (in the Hawaiian Islands) supplying provisions to the whaling fleet” (Thomas 1983:23). “Hanalei was visited by an occasional whaler and by inter-island ships, since there was some cargo to be carried out, but it was a dangerous harbor, especially when winter winds and rain blew down from the north” (Joesting 1984:141).

3.4 1830s to 1850

When the Sulphur, an English vessel on a chart-making voyage, visited Hanalei in 1838, its Captain, Edward Belcher, noted the following:

> Hanalae [sic], besides beef and vegetables of the finest quality, furnishes fruits, poultry, turkeys, &c., cheap and in abundance . . . Our object in coming hither was to embark bullocks, which, we were assured, were better and cheaper than at Oahu; and we were fully repaid for the trouble; we obtained noble animals, and meat as fine as in England. [Belcher 1843:61]

“Charltons Farm,” identified on the map of Hanalei drawn after the expedition, overlooked the northeast side of the valley. It provided much of these foodstuffs, along with butter and cheese (Fitzpatrick 1986:68). Richard Charlton, the British Consul in Honolulu from 1825 to 1846, was among the first Europeans who, in the 1830s, originated schemes to develop new enterprises in Hanalei Valley.

> In 1831 (Charlton) leased from Kaikioewa, the Governor of Kaua‘i, a stretch of land at Hanalei to be used as a cattle ranch. Its extent was not defined by any

> boundaries, it being generally termed Hanalei, and the cattle were allowed to range without absolute limit, except they were not to encroach on the cultivated lands adjacent. The lease was for twenty years from August 27, 1831. [Wilcox 1917:3]

In 1834, Governor Kaikioewa granted Hanalei land to Joel Deadman for the planting of sugar cane. Deadman's later testimony, recorded in 1844 at the time of the Māhele, reveals the precariousness of early land ventures in Hanalei and the informality of these transactions. Kaikeoewa, "agreed to cause [the Hanalei land] to be cultivated & planted with sugar cane and [to] find the materials for a mill and labor." In exchange, Kaikeowea was to be paid "one half of the sugar & Molasses produced." Deadman, "remained there 6 months at considerable loss & expense and had even work made for the mill" but the plantation never materialized. Deadman further testified that Kaikeoewa "was taken sick & soon after went to Oahu [but] on his last visit to Hanalei before he left Kauai he told me that if he did not look after [the land] himself the natives would not do anything properly, so he gave it up, but he told me then and repeatedly afterwards both at Kauai & Oahu to keep the land, that it was my own." In 1842, Deadman sold the land to Dr. T.C.B. Rooke, father of the future Queen Emma.

One enterprise that developed in Hanalei during the 1830s was silk making. Charles Titcomb, an American sailor, started a silk plantation which, by the early 1840s, comprised four varieties of mulberry trees and was reported to have produced excellent silk (Wilcox 1917:7). Titcomb also established a sugar plantation at Kōloa.

During the 1830s, the Protestant American Board of Commissioners for Foreign Missions (ABCFM) established a mission station at Hanalei Bay in the neighboring ahupua‘a of Waioli. "The Waioli valley seemed the best place on the north shore of Kauai to build a church, school and the necessary domestic buildings which together made up a mission station. Hawaiians there were enthusiastic" (Riznik 1987:5).

The first missionary assigned to the station was William Patterson Alexander who, along with his wife and son, arrived at Hanalei Bay in 1834. The Alexanders remained at Waioli until 1843.

Censuses taken by the missionaries throughout the Hawaiian Islands, beginning in 1831, provide the first record of the native population after the first decades of Western Contact. According to the 1834-1835 census of Kaua‘i, a total of 1,505 Hawaiians, adults and children, were then living in the moku (district) of Halele‘a (Schmitt 1973:26). Of that total, 522 Hawaiians, or fully one-third, resided in Hanalei Ahupua‘a.

During the 1840s, a new agricultural pursuit, coffee growing, transformed Hanalei. Charles Titcomb' silk plantation at Koloa had been wiped out in 1840 by a drought "bringing in its train insect pests, aphids and spiders" and by heavy winds, "trade and kona, whipping off the mulberry leaves" (Kuykendall 1938:183). The Hanalei plantation escaped this disaster but "finally encountered financial and other troubles" and Titcomb abandoned the silk-making enterprise in 1844; he is reported to have lost $15,000 in his Kaua‘i venture (Kuykendall 1938:183).

Despite his losses, Titcomb was able to replant his Hanalei fields in coffee with seed procured from Kona. Coffee growing had been introduced to Hanalei in 1842 when John Bernard and Godfrey Rhodes established the Hanalei Coffee Plantation on two land parcels leased from the Government—"one on the east side of the Hanalei River containing ninety acres and one on the west side containing sixty acres" (Wilcox 1917:8)—with "plants and seeds . . . secured from

Governor Boki’s land in Manoa Valley [on O‘ahu]” (Wilcox 1917:9). While coffee had already been grown on O‘ahu and Hawai‘i islands, the fields at Hanalei represented the “first extensive coffee plantations” in the Hawaiian islands (Kuykendall 1938:316) and in 1844 the plantations of Titcomb and of Bernard and Rhodes comprised “upward of 100,000 trees” (Wilcox 1917:9).

> Capt. Rhodes has a fine coffee plantation. It contains upwards of 100 acres. It is in very fine cultivation. He had also banana, & orange trees, & a very fine grove of bamboo. I was much interested in observing the operation of the coffee mill. As in a sugar mill, a mule turns a perpendicular post. To the top of this is fitted a large horizontal cog wheel. This sets in motion a fly wheel which is connected to the rest of the machinery by bands. There are 3 or 4 mills which perform different stages of the operations. The noise which they made was most deafening. [Alexander 1991:127–128]

The Titcomb coffee plantation is characterized as “flourishing” though “not as large as Mr. Rhodes’, nor is the coffee as luxuriant” (Alexander 1991:128). John Bernard, the partner of Godfrey Rhodes, had died at sea off Hanalei Bay in 1845; Rhodes and other investors continued the coffee operation, now renamed the Rhodes & Company Coffee Plantation, which in 1846 comprised 750 of the 1,000 acres of Hanalei land then under coffee cultivation (Wilcox 1917:9–10).

The first Roman Catholic Church in Hanalei was not established until 1864. The Catholic Chapel was built on the western bank of the Hanalei River near the river mouth (Damon 1931:340). Behind the Chapel was Hanalei’s first trading store, called Hubertson’s Store, run by an Englishman named Hubertson who arrived in the 1840s with a shipload of goods. The Catholic Chapel was built on land purchased on October 10, 1849 by Frenchman John Brosseau, who secured a grant for the land from King Kamehameha III (Kauikeaouli).

Brosseau died at Moloa‘a on January 21, 1850, and the land was bought by Henry Rhodes, who then willed it to his brother, sea captain Godfrey Rhodes. Godfrey and his wife Anna Louisa then deeded the Hanalei land to Father Maudet in 1860 for the Catholic chapel (Damon 1931:341).

Hanalei’s first Catholic Chapel was blessed on the site near the Hanalei River on 3 October 1864. The chapel was dedicated to Saint Maxime, the Patron Saint of a friend of the Rhodes family, M. Desnoyers, who was the French consul at Honolulu and also a friend of the Rhodes’. The Chapel and a Rectory, a small house for the priest, were built by Brother Arsene Bernat and blessed by Father Maudet (Damon 1931:340-341) (Figure 6).

3.5 Mid-Nineteenth Century: Māhele Documentation

The middle nineteenth century brought great changes to Hanalei Ahupua‘a, including private and public land ownership laws known as the Māhele (literally, “to divide” or “to section”). The Kuleana Act of 1850 allowed maka‘āinana (Native Hawaiian commoners), in principle, to own land parcels at which they were currently and actively cultivating and/or residing.

As a result of the Māhele, Land Commission Awards (LCA) were claimed in five distinct clusters within Hanalei Ahupua‘a: the shoreline, the Maha‘ana (taro fields adjacent to Waioli Ahupua‘a), Puapuahoi-Limanui (the bottom lands of the Hanalei River), ‘Anini (on the coast northeast of Hanalei Bay), and Kīloa (inland and adjacent to Limanui).



Figure 6. Photo (date unknown) of the Roman Catholic Church within the project area (courtesy of the Hawaii State Archives Digital Collections)

Seventy claims were filed for Hanalei (some filed the same property under two numbers) and 49 were awarded. These claims, both awarded and not awarded, detail land usage referred to here as land use components. These components (204) comprise more than 124 taro patches or mo‘o (one or more taro patches in a mo‘o) (61.1%), 44 house lots (21.7%), 18 kula (garden/pasture) (8.9%), more than eight orange and more than one lemon trees (4.9%), five loko (ponds) (2.5%) a noni and banana patch, 400 head of cattle and 160 acres of coffee, and a wharf (misc. 1%).

There is one LCA in the project area and a total of six LCAs that are nearest to the project area; six are located on the north side of the Hanalei River near to the base of Kaunu‘ōpua Ridge. The seven LCAs are presented in Table 1 and depicted on Figure 7, a portion of the 1996 Hanalei USGS topographic quadrangle and Figure 8, an 1893 map by W.A. Wall. Complete LCA documentation on each of the seven LCA parcels is presented in Appendix A.

Table 1. LCA in and near (approximately 100 m south) the Current Project Area and LCAs on Kaunu‘ōpua Ridge (north side of Hanalei Valley)

LCA No.	Awardee	Comments
00052	John Brousseau	Awarded “Opukahi”; (one ‘āpana [lot]; 1 acre 3 roods 6 rods)
1027 (also referenced as Grant 100)	John Kellet	Awarded “Kamomailai”; five houses, some enclosed—four native houses and Kellet’s home; six kalo patches (one ‘āpana; 1 acre 6 rods)
4081	Kalawakea	House lot (1 ‘āpana; 1 rood)
4083	Kealaiki	‘Āpana two; House lot in “Kaunuopua” (one ‘āpana; 37 rods)
9078	Kalakala	R.P. 2919; no testimony or description (four ‘āpana; 2 acres 37 rods). However, LCA 4073 provides details—‘āpana 1 “is a house lot in ‘Kaapiki’ with two orange trees”
10646	Puupoa	Not awarded; however, claimed and awarded LCA 3819; ‘āpana one is a “house lot in Kaunuopua, Hanaleiiki.” (2 ‘āpana; 1 acre 1 rood 28 rods)
10648	Paaiki	Not awarded; however, claimed and awarded LCA 3816; ‘āpana one is a house lot in “Kaunaopua” (one ‘āpana 2 roods 4 rods)

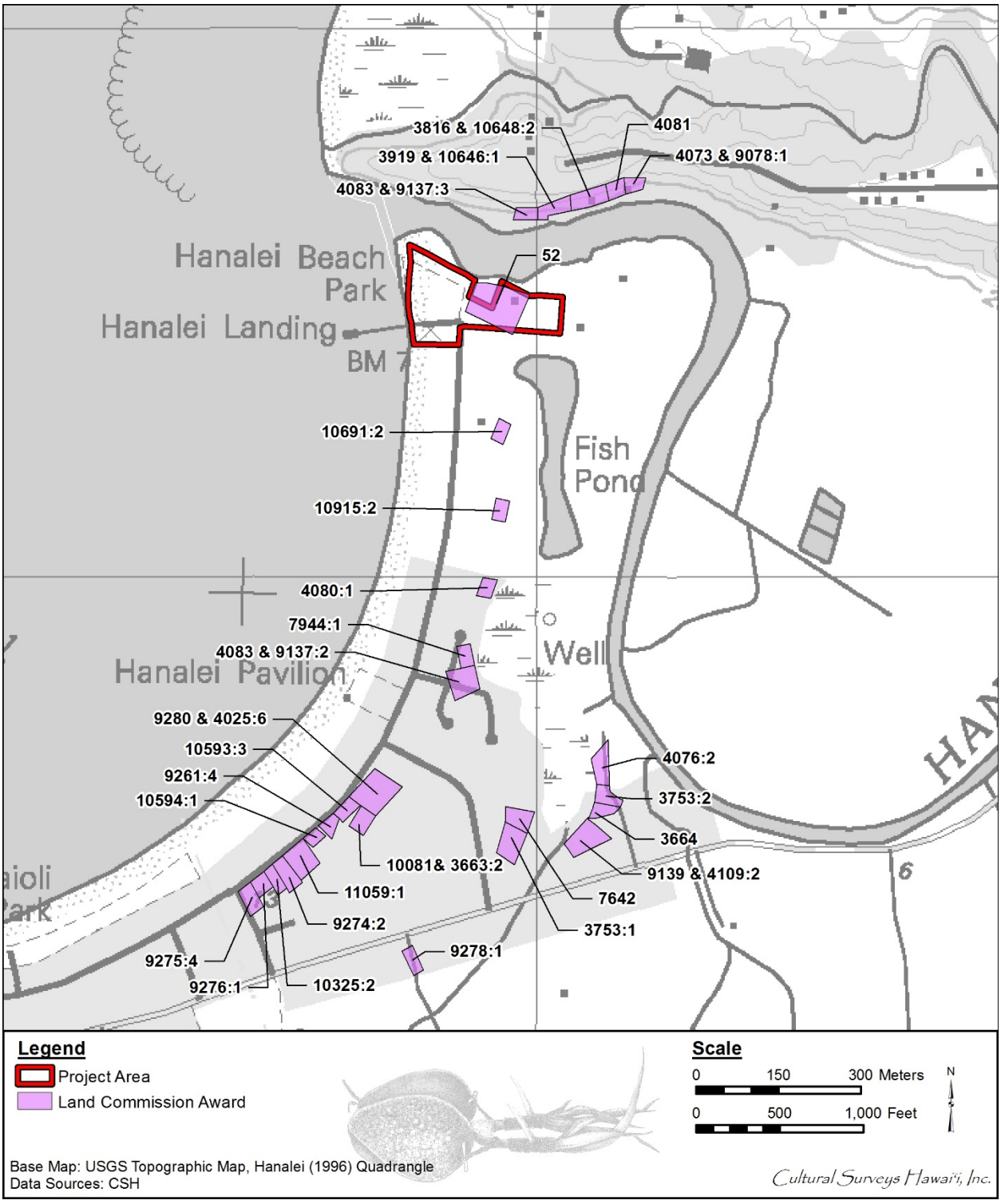


Figure 7. Portion of the 1996 Hanalei USGS 7.5-minute topographic quadrangle showing the location of LCAs in and north of Hanalei River near the base of Kaunu‘ōpua Ridge

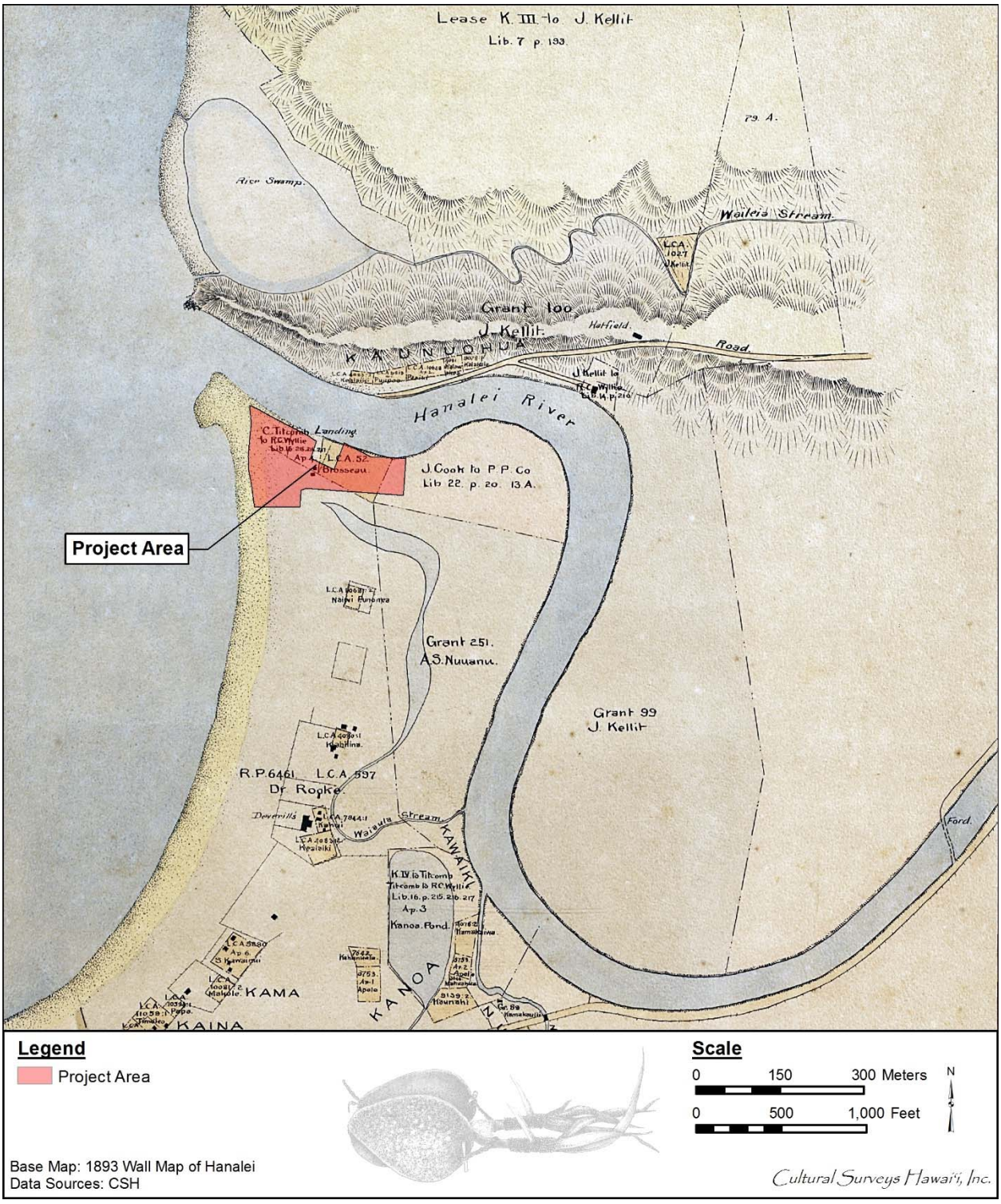


Figure 8. A portion of the 1893 Walter A. Wall “Map of Hanalei Makai, Kaua‘i” showing LCA 00052 (John Brousseau) in the project area

3.6 1850s to 1900

According to records of the Royal Hawaiian Agricultural Society—organized in 1850—in Honolulu, “for the twelve months from July, 1850, to June, 1851 . . . Hanalei exported (to Honolulu) 21,298 pounds of coffee, 39 barrels of Irish potatoes, and 20 head of cattle, at a total value of $2,744.08” (Damon 1931:334). Coffee-growing continued to dominate Hanalei, apparently established firmly within the landscape. However, the plantation owners were apprehensive; they foresaw an eventual lack of manpower in their fields as production increased. They also feared a growing intransigence among the Hawaiian workers: “Mr. Rhodes stated (in an 1851 report) that laborers were demanding one dollar a day . . . and that some had refused to work even at four dollars a day” (Damon 1931:351). Many of the Hawaiian laborers had already left the island to work in the gold mines of California. The Hanalei planters thus welcomed the Agricultural Society plan to import “Chinese coolie laborers under contracts based on the indentures used in employing seamen” for the various plantations throughout the Hawaiian Islands (Damon 1931:351). In 1852, the first Chinese laborers arrived at Hanalei to work on the coffee plantations. By the next year the Chinese were fully integrated into the labor system. Rhodes’ 1853 report on Hanalei to the Agricultural Society noted the following:

> Mr. Titcomb’s Coffee Plantation is in fine order, and he expects a large crop, of perhaps 80 to 100 M. lbs. He has lately cleared more land for planting: his plantation is compact, and well managed. I believe he is satisfied with his coolies. He has a number of natives engaged, but has difficulty in making them fulfill their agreements. Our own plantation is thriving, although a number of years must elapse before it re-attains the prosperous state it was in 1849 and 1850, when our natives all left us, smitten with the California fever. I am very well satisfied with the coolies, and much prefer them as laborers. [Damon 1931:352–353]

Whatever comforts the coffee planters of Hanalei may have obtained from the newly available labor force, they were vulnerable—in the 1850s—to natural forces beyond their control. That vulnerability had been foreshadowed earlier when a torrential rain in 1847 flooded the valley, severely damaging the coffee trees. In 1851 and 1852 the Hawaiian Islands suffered through a severe drought. A subsequent blight ravaged coffee trees at Hanalei and on all the islands. While the plantations were able to continue production for a few more years, by the end of the 1850s, the Hanalei plantations were devastated. A visitor in 1860 contrasted the current destruction with the flourishing scene of three years earlier:

> The coffee blight has entirely covered the two Hanalei plantations which in the spring of 1857 we saw in full and successful culture, yielding 200,000 pounds of excellent coffee. It was sad to witness the contrast. Then scores of women and children were busy picking the ripe berries, and depositing their gatherings at night at the overseer’s office, but now all was silent. Not a gatherer was abroad, and we saw laborers bringing in coffee trees upon their shoulders, to heat the fires under the sugar boilers of Mr. Titcomb. [Damon 1931:351]

The “sugar boilers of Mr. Titcomb” the visitor noted were evidence of an unflagging resilience; Titcomb, who had earlier converted his fields from silk to coffee, turned his energies to sugar growing during the latter 1850s.

Godfrey Rhodes, the other Hanalei coffee grower, had already sold his coffee plantation: “on March 14, 1853 the land occupied by the Rhodes Coffee Plantation was bought from the Government for $1,300 and on Sept. 13, 1855 Rhodes sold out his interest in the plantation for $8,000” (Wilcox 1917:13). Robert Crichton Wyllie, the Hawaiian Kingdom’s Minister of Foreign Affairs purchased the land and plantation.

Wyllie, a Scotsman who had made his fortune as a merchant in South America, arrived in the Hawaiian Islands in 1844. Though Wyllie had not intended to settle in Hawai‘i, in 1845 he accepted an appointment by King Kamehameha III as Minister of Foreign Affairs and served in that office until his death 20 years later.

As Foreign Minister, Wyllie’s great ambition was the recognition of the Hawaiian Kingdom as a sovereign nation by the world’s powers. A personal aspiration also captivated Wyllie: to build a manor at Hanalei that rivaled any he had known in Scotland. Toward this effort, in 1853 he began acquiring tracts of Hanalei land—beginning with the Rhodes Coffee Plantation—that within a few years would comprise an estate and plantation. Wyllie attempted to save the coffee plantation: “For ten years (Wyllie) doggedly fought against [the] blight which gradually withered the trees. Finally facing reality, he pulled out the dead trees and planted a new crop, sugar” (Hackler 1982:66).

By 1862, Wyllie had “constructed an extensive sugar factory and other buildings at the eastern end of the Valley, along the river, importing much of the machinery from Scotland” (1000 Friends of Kauai 1987:32) and in 1863 he bought Titcomb’s lands:

> On Feb. 5, 1863, Mr. Titcomb sold out to Mr. Wyllie . . . In all, four pieces of land passed to Wyllie, 750 acres at Emmasville, 1 acre at the landing, Kanoa Pond, 10 A., and Kukia on the opposite side of the river. Wyllie had before this, on April 17, 1862, bought the Ahupuaa of Kalihikai, this being the property of A. Keliiahonui, grandfather of Levi Halelea, given to Keliiahonui by an old alii. On Oct. 5, 1862, Wyllie bought at public auction from J.W. Austin and Chas. Kanaina (Guardians of W.C. Lunalilo) the Ahupuaa of Kalihiwai. [Wilcox 1917:14]

Wyllie’s land purchases and substantial investment in the development of his sugar operation reflected the brilliant future he envisioned for his estate. He intended to name as heir to his lands the young “Prince of Hawaii” (Ka Haku o Hawaii) Albert Edward Kauikeaouli Leiopapa a Kamehameha, who had been born in 1858, the son of King Kamehameha IV and Queen Emma. It was after a visit by the royal family to Hanalei in 1860 that Wyllie named the estate “Princeville.” He resolved to petition the king to proclaim the estate the “Barony of Princeville”—making it a fit legacy for the prince. His plans were undone in 1862 when Albert died at the age of four; Wyllie died three years later. The estate and plantation were discovered to be deeply in debt and in 1867 Wyllie’s lands were auctioned and sold for $40,051.50 to Elisha Hunt Allen who, like Wyllie, was an official of the Hawaiian government.

The Princeville Plantation continued in operation—in 1872 “the average crop was 400 tons, capacity of the mill, 1,000 tons” (Wilcox 1917:18)—under changing ownership until the 1890s. A Hawaiian Government survey map of 1878 indicates sugar cane growing on both sides of the Hanalei River, extending makai near its mouth at Hanalei Bay (Figure 9).

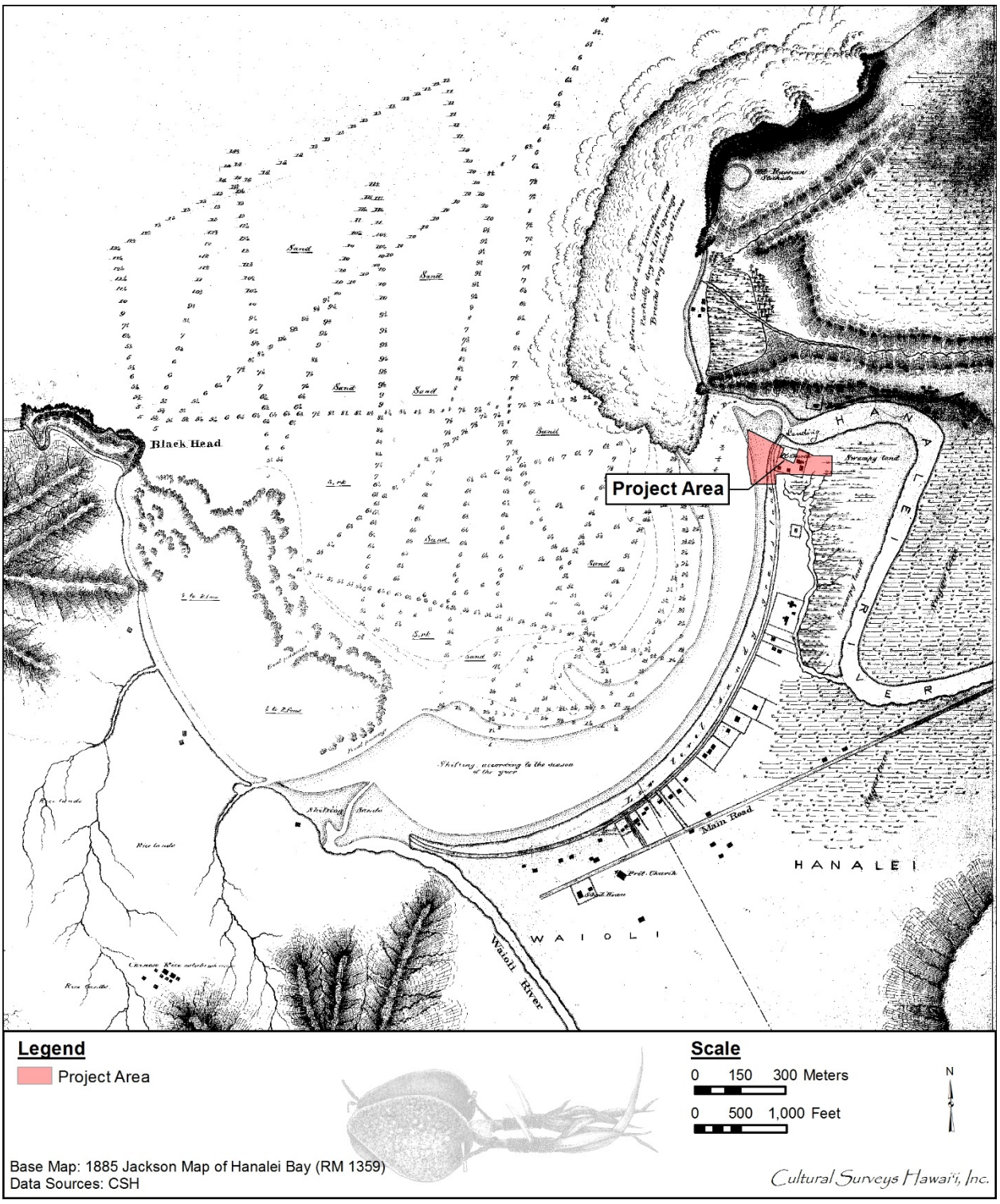


Figure 9. 1885 Jackson Map of Hanalei Bay showing project area

By the last decade of the nineteenth century, the difficulties of growing sugar cane at Hanalei were insurmountable: “[T]he cane had never done well in that cool, wet climate. Much of it rotted in the lower fields; the upper fields were, it is said, not plowed deeply enough and at times there was not water enough to flume the cane down to the mill” (Wilcox 1917:18–19).

The company failed; the last crop was harvested in 1893. By 1899, Albert S. Wilcox had secured control of the entire plantation: “The lower lands were rented out to Chinese rice-planters, and the upper lands between Hanalei and Kalihiwai were planted to imported grasses and turned into a cattle-ranch” (Wilcox 1917:19). Wilcox (1917:19) sold the land to Lihue Plantation Company and W.F. Sanborn in 1916.

Eric A. Knudsen recounts a trip around Kaua‘i in 1895, presenting a very different view of Hanalei. As his party approached from Kalihiwai Ahupua‘a:

> We . . . were glad when we reached the great valley of Hanalei. The road in those early days almost dived straight down to the bridge. It was steep and in wet weather very slippery . . .
>
> About half way down, the valley began to open up. Rice fields and taro patches covered the flat bottom lands as far as the eye could see . . . the view to our right, the winding river with a barge loaded with rice slowly drifting down on its placid surface, and beyond the great sweep of sandy beach, were a truly inspiring sight. [Knudsen 1991:153]

A bridge Knudsen describes that spanned Hanalei River from the government road was a recent development. Until the 1880s, as noted in a tourist guide of that decade, the river crossing was a “ferry opposite the Princeville Plantation, where passengers, cattle, teams, etc., can pass the river free of charge, the ferry being supported by the Government and the Princeville Plantation, jointly” (1000 Friends of Kauai 1987:58–59; Figure 10).

3.6.1 Rice Cultivation

During the decades of declining sugar cultivation, rice fields had been expanding. A number of the immigrant Chinese laborers remained in Hanalei upon completion of their contracts with the plantation. Many of the former labors became merchants or rice farmers, since the existing taro lo‘i provided a ready foundation for conversion to rice paddies (Figure 11).

The Hawaiian Islands were well-positioned for rice cultivation. A market for rice in California had developed as increasing numbers of Chinese laborers immigrated there beginning in the mid-nineteenth century. Similarly, as Chinese immigration to the Islands also accelerated, a domestic market developed. William T. Brigham, a visitor to the Halele‘a District in 1865, noted the conversion of some Kalihiwai Ahupua‘a lands just south of Hanalei. “The numerous kalo-patches would make good rice land, and indeed a few Chinese are now raising their favorite food” (Lydgate 1991:137). Within Hanalei itself, the Princeville Plantation Company began leasing out their land for rice farming in the 1870s. In a report of 22 December 1879, William Allen, president of the plantation company, noted the following:

> We have leased forty two acres of land, part of the Titcomb lot to some Chinamen for ten years for fifteen dollars per acre, per annum . . . The Chinamen [have] spent



Figure 10. Photograph of the hand-pulled ferry used, ca. mid-1800s, before the Hanalei Bridge was built (Harrington 2008:86, Kaua‘i Museum Archives)

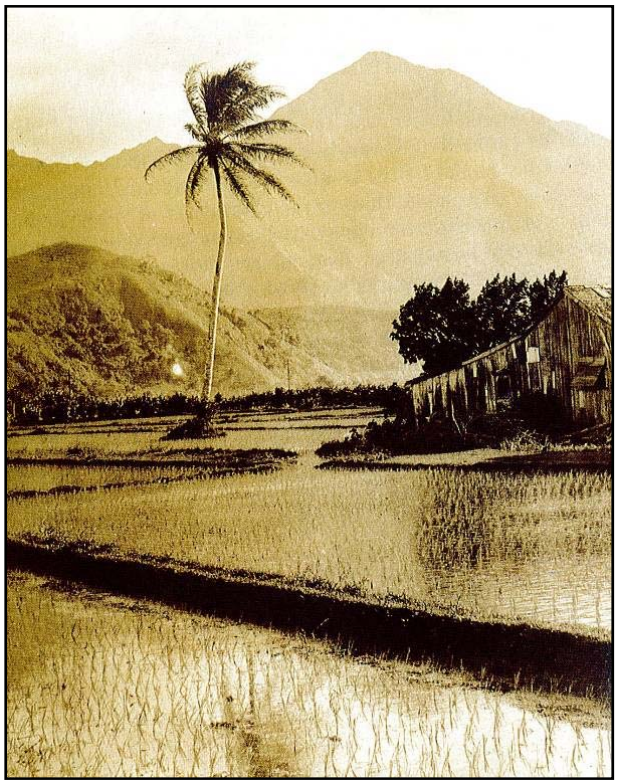


Figure 11. Photograph of the Hanalei rice fields on Charles Titcomb’s former silk plantation ca. 1840 (Harrington 2008:50, Kaua‘i Museum Archives)

> a lot of money putting up buildings and preparing rice patches, and as this was land we did not wish to put in cane we thought best to lease it. [Hackler 1982:79]

Early the following year, Allen was projecting further leases after a Chinese firm had proposed to rent all of the plantation's land in the valley; he wrote on 31 January 1880:

> If we can lease 700 acres the rental will be $10,500 per annum, almost 9% on our capital stock. If we do this I think we can reduce our expenses a good deal. Now we have a force of 190 men, and if we give up cultivating the valley, we can reduce to 150 and produce the same amount of sugar. [Hackler 1982:79–80]

The plantation eventually leased 300 acres to Chulan and Company at $20 per acre, per year (Hackler 1982:80). By 1892, 750 acres of Hanalei Valley were under rice cultivation, comprising the largest single rice-producing locality in the Hawaiian Islands (1000 Friends of Kauai 1987:116).

The transformation of Hanalei Valley from sugar to rice growing during the second half of the nineteenth century reflected the increasing Chinese population at Hanalei. Government censuses at Hanalei recorded 164 Chinese in 1866, 132 in 1872, 265 in 1878, 459 in 1884, and 689 in 1896 (1000 Friends of Kauai 1987:116). Government censuses also documented the declining Native Hawaiian population of Hanalei during the second half of the nineteenth century. There were 1,926 Hawaiians in 1853, 1,600 in 1860, 1,949 in 1866, 1,403 in 1872, 578 in 1878, 795 in 1884, 860 in 1890, and 679 in 1896 (1000 Friends of Kauai 1987:121). Presumably some of those Hawaiians in the 1890s continued to farm the remaining taro lo‘i that Eric Knudsen noticed amidst the rice fields in 1895.

3.7 1900 to the Present

During the first decade of the twentieth century, rice farming by the Chinese continued to be the focus of large-scale economic activity in Hanalei.

Two significant structures that still exist were constructed at Hanalei in 1912: the pier at the mouth of Hanalei River and the bridge spanning the river (Figure 12 and Figure 13). The pier is described, in an application for placement on the National Register of Historic Places (NRHP), as a "wooden deck . . . built during a period of economic prosperity in the area, primarily the result of a thriving rice industry" that "replaced an earlier shorter pier and primarily was employed for the shipment of rice."

While the new pier reflected the flourishing rice-based economy of the valley, the construction of the bridge—replacing the wood bridge Eric Knudsen had crossed in 1895—provided an impetus for further change within Hanalei. The bridge, described in an application for placement on the NRHP, is a "106-foot, single span, steel through-truss (Pratt Truss) bridge built on reinforced concrete abutments, with a 17-foot roadway deck made of timber planks." The application also notes that the construction of such substantial steel structures, replacing older, timber bridges "helped stimulate the economic and social growth of the then relatively isolated North Shore" of Kaua‘i. The facilitated access in and out of the valley likely accelerated late nineteenth century development in the area of

> . . . vacation houses along the Hanalei beach to take advantage of the pleasant breezes and spectacular water views . . . There appears to be a connection between



Figure 12. Aerial photo ca. 1924 of Hanalei Bay and Hanalei River showing the pier (Hawai‘i State Archives Digital Collections)

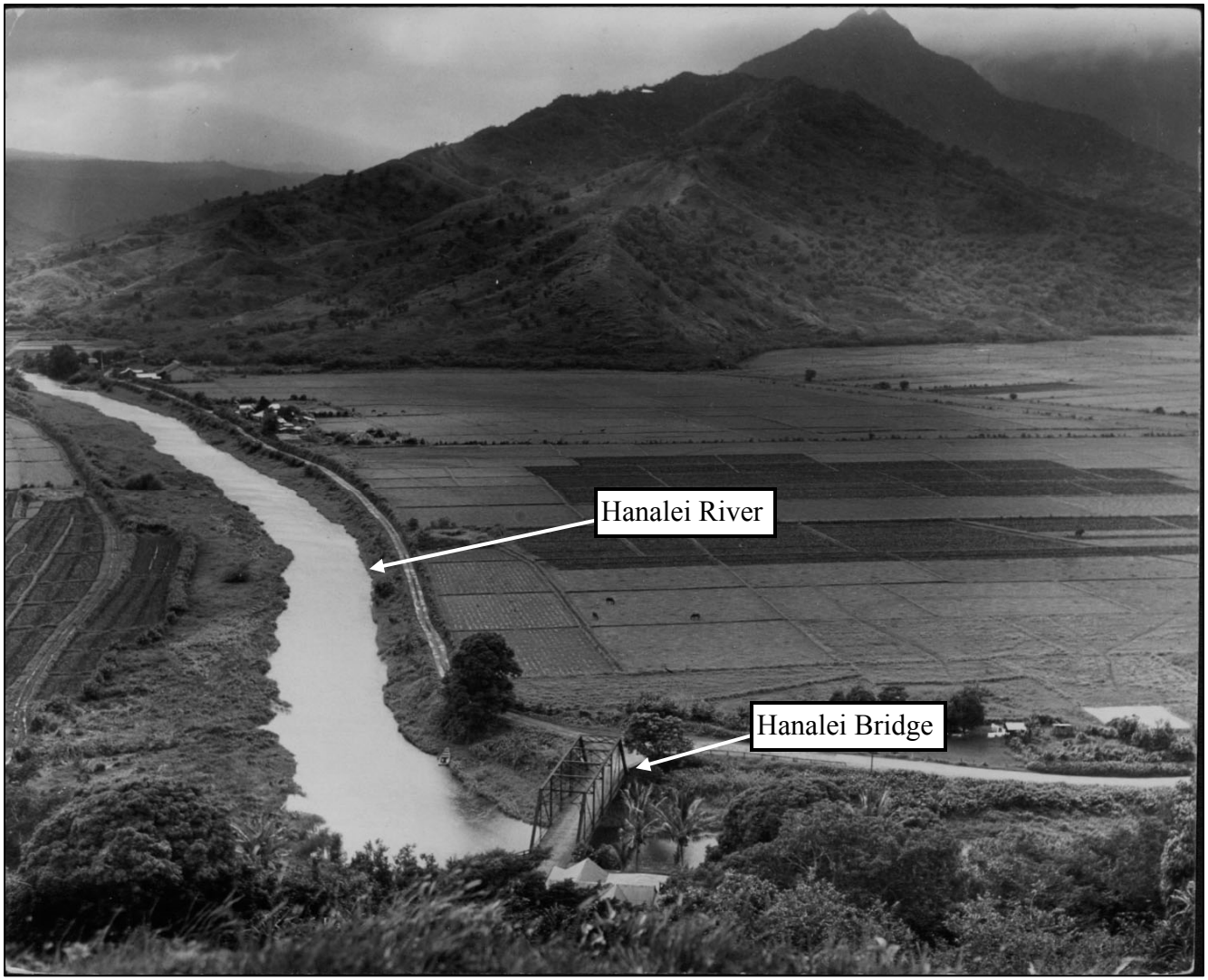


Figure 13. Photo (date unknown) of Hanalei Bridge crossing over the Hanalei River (Hawaii State Archives Digital Collections)

> the 1912 construction date for the existing Hanalei Bridge and the construction dates of most of the beach houses since the majority of the beach houses were built following that date. [1000 Friends of Kauai 1987:62]

A 1916 article in the Garden Island characterized Hanalei's attractions by the second decade of the twentieth century:

> Hanalei has been a popular and populous community of late, a sort of suburb of Lihue since there were many Lihue people summering there, the various beach houses being full to overflowing. Morning, noon, and night the wharf has been alive with enthusiastic but 'green' fishermen, mostly of a tender age, and the sands dappled with figures in proper costume and the waters flecked with tumbling swimmers who mostly couldn't swim. [1000 Friends of Kauai 1987:63]

Clearly foreshadowed is the future development of Hanalei and Princeville as a resort destination.

Rice farming declined sharply throughout the Hawaiian Islands after the first decades of the twentieth century as lower-priced rice grown in California inundated the market; total acreage in the Islands dropped from a high of 9,425 acres in 1909 to 1,130 acres in 1935. By the end of the 1930s, the rice industry had ceased entirely on the islands of Hawai‘i, Maui, and Moloka‘i (Coulter and Chun 1937:62). Rice cultivation that survived at Hanalei was of a different character—Chinese rice growers at Hanalei and elsewhere had begun selling their fields to immigrant Japanese rice growers. In 1916, 16% of the rice lands in the then Territory of Hawai‘i were controlled by Japanese growers. By 1932, a survey showed that 62% of the Hawai‘i-grown rice was being cultivated by Japanese. At first the Japanese sold their paddy to Chinese-owned rice mills; then, gradually, they took over the mills, too (Glick 1980:59).

This was the pattern that evolved at Hanalei as increasing numbers of Japanese moved into Hanalei to reside and work the rice fields, while the original Chinese rice growers moved on to other commercial pursuits. Typical was the Haraguchi family that began leasing rice land at Hanalei from the Man Sing family and subsequently purchased the Man Sing mill in 1924. The family cultivated 75 acres in the valley. When the original Man Sing mill was destroyed by fire in 1930, the Haraguchi family built the still extant mill presently listed on the NRHP. The documentation for the mill's placement on the Register notes that the Japanese rice growers replaced the Chinese variety of rice with a shorter grain rice that the Japanese preferred.

In the 1930s, the Agricultural Extension Service of the University of Hawai‘i began a program to increase rice production at Hanalei, resulting in a brief "resurgence in rice cultivation." Acreage in Hanalei increased from "759 in 1933 to 1058 in 1934," and by 1936 Hanalei "produced over two-thirds of all rice in Hawaii, almost all of it for consumption within the Territory" (1000 Friends of Kauai 1987:117–118). It is this rice-dominated Hanalei landscape that E.S. Craighill Handy, in his 1940 study of planting areas throughout the Hawaiian Islands, describes as it appeared in the 1930s. Handy's account is especially valuable and merits citation at length as he notes both present usages based on his field observations and former usages based on information from native informants:

> The swampy land below the hills at the west end of Hanalei next to Waioli is unused. The land between the highway and the bay on the west side of the river,

> much of which used to be terraces, is now given over to pasture and home sites. The land named Paele in the great bend of the river east of the bay, which used to be in rice or taro, is now used for pasture. The broad area inland from the river, named Kahanawai, is now planted with rice, except for the flats adjoining the base of the hill. According to Sheriff Lota, this area was only partly developed in terraces in ancient times. In the 1880s, the land just above the highway was planted in sugar cane, which gradually extended far up Hanalei Valley. Subsequently much of this land, which had not previously been in terraces, was cut up by the Chinese into paddy fields. It was only in the flats of Hanalei Valley proper that terraces were continuous in the old days. At present, rice paddies are continuous for 1.3 miles from the highway bridge where the Hanalei River turns east; another sizable rice patch lies four tenths of a mile beyond, the land between being neglected. Beyond this farthest rice plantation the Hawaiian homesteads commence. A few Hawaiians and other homesteaders plant a little taro for home consumption. It is said that there are numerous areas of abandoned small terraces farther in the interior. In lower eastern Hanalei, Mr. Sanborn is successfully growing taro in flats that have been used for rice for over 30 years. [Handy 1940:72]

Handy's description indicates that by the 1930s, Hanalei Valley comprised a patchwork of mutating idle and active agricultural fields and pastures that reflected the vagaries of decades of shifting economic pressures.

While Handy asserts that taro farming survived in the 1930s only as a subsistence crop for a "few Hawaiians and other homesteaders" other sources indicate the taro-growing area at Hanalei was somewhat more expansive. A 1939 U.S. Department of Commerce agriculture census documented 108 acres in taro at Hanalei, comprising fully one-fifth of the total 529 acres in taro throughout Hawai‘i (1000 Friends of Kauai 1987:118).

According to NRHP documentation on the Haraguchi rice mill, by the "early 1950s there were about 50 growers cultivating 170 acres of rice on Kauai" with Hanalei holding 90 of those acres, a precipitous drop from the 1,058 acres recorded in 1934. Clearly, rice farming at Hanalei was no longer viable due to inexpensive rice imported into the Territory. The last rice mill, operated by the Haraguchi family, ceased production in the early 1960s.

As the Japanese farmers phased out rice production in the 1950s and 1960s, they converted their fields to taro lo‘i. By the late 1980s, taro-growing—which once dominated the traditional Hawaiian landscape—was firmly reestablished within Hanalei, farmed in two areas of the valley:

> . . . 195 active taro lo‘i cover 140 acres within the Hanalei National Wildlife Refuge. These terraces range in size from 40 ft. by 70 ft., to 220 ft. by 400 ft., although taro lo‘i are characteristically not regular in shape. The smallest taro patch recorded within the refuge was one-twentieth of an acre, while the largest was over two acres in size . . .
>
> Currently [in 1987], there are 201 active taro patches covering 93 acres mauka of Kuhio Highway, across from Hanalei town . . . These range in size from 30 by 90 ft., to 160 by 130 ft. The smallest taro patch within this area is one-fifteenth of an acre, while the largest is one-half an acre in size. [1000 Friends of Kauai 1987:27–28]

As taro-farming secured its place in Hanalei during the second half of this century, contemporary developments—entrepreneurial and governmental—within the ahupua‘a would further redefine the character of Hanalei. Beginning in the 1950s, the Princeville area began its conversion, which continues at present, from agricultural cultivation to a major resort and condominium complex destination. At the same time,

> . . . the Federal government became a partner in shaping land use in the Hanalei Valley . . . by working with the Princeville Development Corporation to acquire land for the U.S. Fish and Wildlife waterbird refuge. The refuge has a supportive policy of continued taro production and the maintenance of the irrigation system and existing houses and farm outbuildings. ([000 Friends of Kauai 1987:10l]

The Hanalei National Wildlife Refuge was established in 1972 to provide feeding and nesting areas for endangered Hawaiian water birds, including the ‘alae ke‘oke‘o (coot), ae‘o (stilt), gallinule, koloa maoli (duck), and nēnē (goose). It encompassed 917 acres of Hanalei Valley, including 70 acres of ponds, 600 acres of forest and mountain areas, and in 1993, 125 acres of commercial taro fields.

Severe hurricanes—“Iwa” in 1982 and “Iniki” in 1992—have demonstrated the precariousness of human development within the Hanalei environment, just as natural disasters thwarted the efforts of the newly arrived nineteenth century entrepreneurs. Figure 14 through Figure 19 depict development changes within and around the project area. However, the endurance of taro through the changes documented above—and its flourishing today—may preserve the memory of the pre-Contact Hanalei with its heiau, hula house, and starting places for races to the beach.

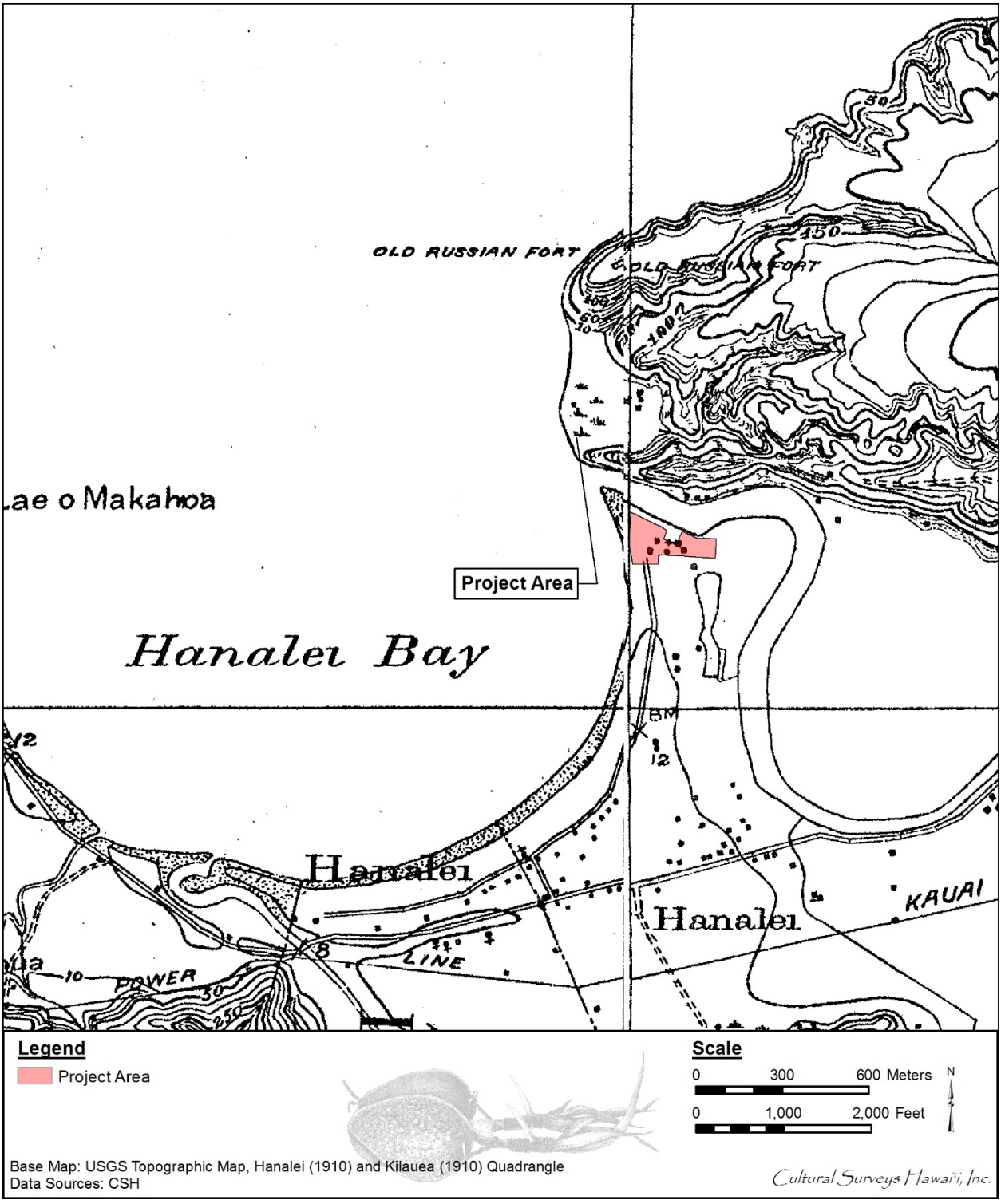


Figure 14. Portions of 1910 Hanalei and Kilauea USGS topographic quadrangles showing the project area and the Hanalei Bay area

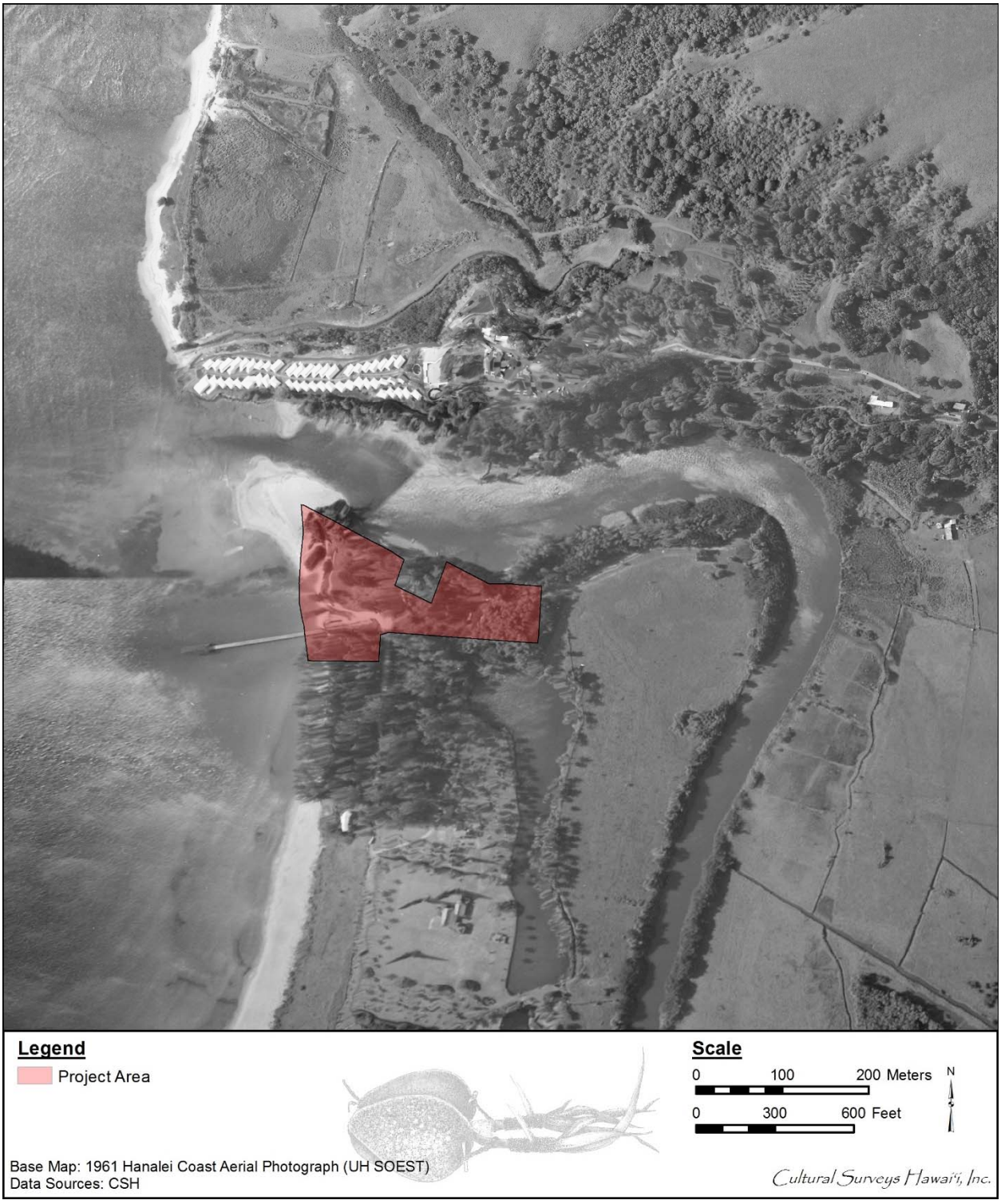


Figure 15. A 1961 aerial photo of the project area and the vicinity



Figure 16. A portion of the 1963 Hanalei USGS topographic quadrangle of the Hanalei Bay area



Figure 17. A 1975 aerial photo of the project area and the vicinity



Figure 18. Portion of 1978 orthophoto of Hanalei Quadrangle with project area and the Hanalei Bay area



Figure 19. A 1989 aerial photo (RM Towill) of the project area and the vicinity

Section 4 Previous Archaeological Research

This section is intended as an orientation to the archaeological potential of the project area based on previous archaeological studies conducted within the project area. No previous archaeological studies have been conducted in the current project area. Numerous archaeological studies have been conducted near the vicinity of the project area. Since the project area is located along the coastal area of Hanalei Bay, previous archaeological studies are focused along the same coastal area. Table 2 outlines previous archaeological studies, while the locations of the archaeological studies involving fieldwork are depicted in Figure 20. Table 3 lists the archaeological sites (cultural resources) documented through previous archaeological studies; their locations are depicted on Figure 21. A brief description of Hammatt et al. 1997, a previous archaeological study just south and the nearest to the current project area, follows the tables and figures.

Table 2. Previous Archaeological Studies in the Vicinity of the Project Area

Reference	Type of Study	Location	Results
McCoy 1973	Mapping and test excavations	Fort Alexander (constructed in 1816-1817 on Pu‘u Poa Point)	Found “fort was never completed”
Earle 1978	Study of irrigation systems and pond fields	Hanalei	Six modern irrigation systems; Kamo‘omaika‘i Fishpond and an irrigation site
Athens 1981	Archaeological survey	Beach fronting Hanalei Bay Resort	D10-33, an alignment or possible platform, D10-34, a stacked-stone wall, and D10-35, an agricultural field
Hammatt et al. 1981	Archaeolgical and ethnohistorical survey	Kamo‘omaika‘i Fishponds, Hanalei	Confirmed previously identified sites D10-33, an alignment, and D10-34, a stacked-stone wall, during surface survey; no subsurface cultural materials identified during limited subsurface testing (hand auger coring)
McMahon 1989	Returned human mandible fragment	Princeville, TMK: [4] 5-4-011	SIHP # 50-30-03-1807, human humans; no provenience
Pantaleo 1989	Archaeological inventory survey	Princeville Resort	No historic properties or cultural materials identified
Pietrusewsky 1989	Human remains	Princeville Sheraton Mirage	Right half of a mandible (SIHP # 50-30-03-1807)
Bordner 1991	Archaeological reconnaissance	Hanalei Garden Farms	No historic properties or cultural materials identified

Reference	Type of Study	Location	Results
Kennedy 1991	Data recovery and subsurface testing	Hanalei Town, TMK: [4] 5-5-009:008	Two historic properties documented (SIHP #s 50-30-10-400 and -401); SIHP # -400 is a buried agricultural layer and SIHP # -401 is an ‘auwai
Kikuchi 1992	Palynological analysis	Kamo‘omaika‘i Fishpond	Fishpond “probably not successful”
Spear 1992	Archaeological inventory survey	25,000 sq ft portion of St. Williams Church property, TMK: [4] 5-5-002:037	SIHP # 50-30-03-1877, pre- and post-Contact deposits
Benson 1993 (Field Notes)	Archaeological monitoring	TMK: [4] 5-5-010:072	SIHP #s 50-30-03-6012 and -6029, two burials
Denham et al. 1993	Inventory survey with subsurface testing	Hanalei Town, TMK: [4] 5-5-002:046 (4th Div)	Three historic properties documented (SIHP #s 50-30-03-548, -549, and -550): SIHP # -548 fire pit; SIHP # -549 burial area consisting of at least 13 individuals; SIHP # -550 historic site consisting of a mill drainage pond (Feat. A), and a rice husk dump (Feat. B)
Athens 1994	Paleoenvironmental core	Hanalei Center parking lot	Minimal finds
Benson 1994 (Field Notes)	Inadvertent burial	TMK: [4] 5-5-001:002	One historic property documented, SIHP # 50-30-03-865, human remains
Bordner 1994	Archaeological reconnaissance survey	Hanalei Garden Farms Unit, TMKs: [4] 5-4-004:009, 5-4-004:010)	Early twentieth century mill foundation and a possible agricultural feature
McMahon 1995	Inadvertent burial find	5-5496C Kūhiō Hwy, TMK: [4] 5-5-006:012	SIHP # -1982, human remains
Hammatt et al. 1996	Archaeological inventory survey	20-acre property along bend on east side of Hanalei River	Pre-Contact marsh deposits

Reference	Type of Study	Location	Results
Hammatt et al. 1997	Archaeological inventory survey	1.23-acre property in Hanalei, TMK: [4] 5-5-001:014–017	No historic properties or cultural materials identified
McEldowney & Dagher 1997	Recovery of inadvertently discovered human remains	Princeville, TMK: [4] 5-4-004:001	SIHP # 50-30-03-1983, two burials
Fong et al. 2006	Archaeological monitoring	10-mile stretch of Kūhiō Hwy, Shoulder Improvements project, Princeville to Hā‘ena	No historic properties or cultural materials identified
Runyon et al. 2014	Archaeological inventory survey	Proposed 23-acre Halele‘a Village Shops, TMKs: [4] 5-5-010:066, 068, 069, and 081	Documented one previously identified historic property (SIHP # 50-30-03-452) and three newly identified historic properties (SIHP #s 50-30-03-8082, -8084, and -8085); SIHP # -452 consists of Kanoa Pond; SIHP # -8082 is an agricultural complex of an irrigation ditch, a spillway and sluice gates; SIHP # -8084 is a historic cultural layer dating to early twentieth century; SIHP # -8085 is a historic pit feature

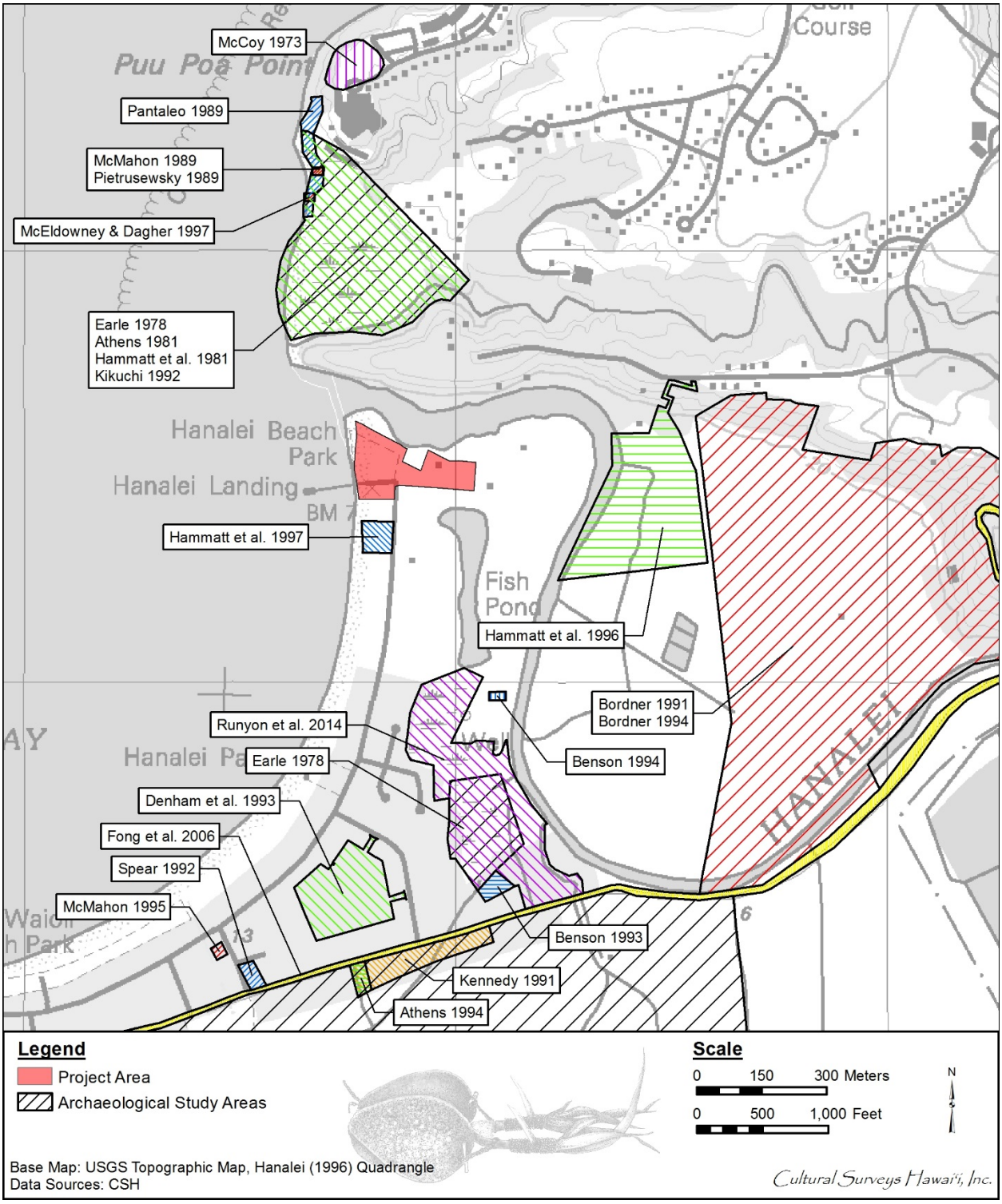


Figure 20. A portion of the 1996 Hanalei USGS topographic quadrangle, showing locations of previous archaeological studies in the vicinity of the current project area

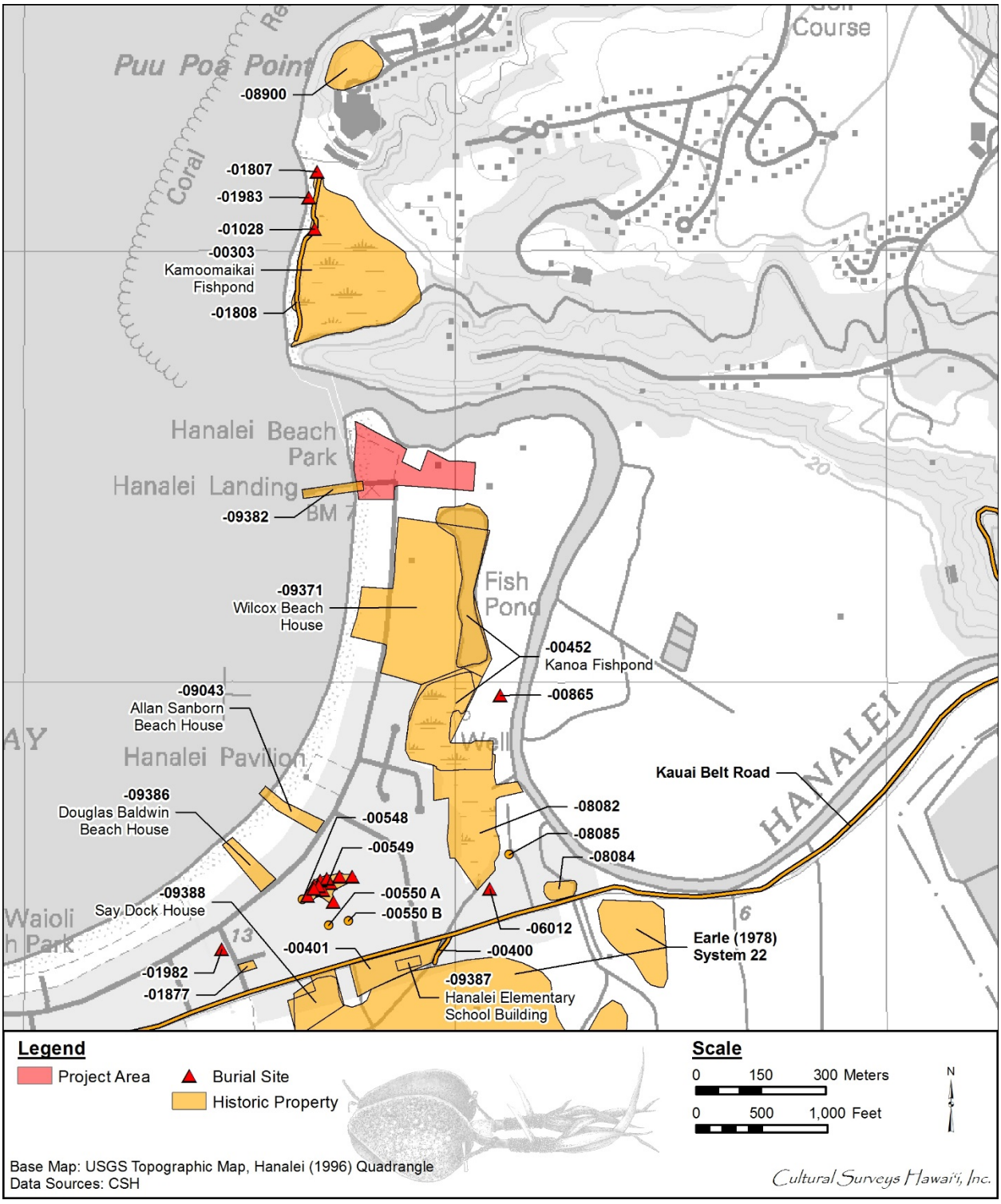


Figure 21. A portion of the 1996 Hanalei USGS topographic quadrangle, showing locations of previously identified historic and archaeological sites around the current project area

Table 3. Previously Identified Archaeological Sites near the Project Area

SIHP #	Site Type	Reference
50-30-03-00303 (Site Ka-D10-9)	Kamo‘omaika‘i Fishopnd	Earle 1978; Athens 1981; Hammatt et al. 1981; Kikuchi 1992
50-30-03-00400	‘Auwai	Kennedy 1991
50-30-03-00401	Buried cultural layer	Kennedy 1991
50-30-03-00452	Kanoa Fishpond	Earle 1978; Runyon et al. 2014
50-30-03-00548	Fire pit	Denham et al. 1993
50-30-03-00549	Burial area consisting of at least 13 individuals	Denham et al. 1993
50-30-03-00550	Historic site consisting of a mill drainage pond (Feature A) and a rice husk dump (Feature B)	Denham et al. 1993
50-30-03-00865	Burial	Benson 1994
50-30-03-01807	Right half of a human mandible	Pietrusewsky 1989; McMahon 1989
50-30-03-01808	Irrigation system	Earle 1978
50-30-03-01877	Pre- and post-Contact deposits	Spear 1992
50-30-03-01982	Inadvertent burial	McMahon 1995
50-30-03-01983	Two burials	McEldowney and Dagher 1997
50-30-03-06012	Burial	Benson 1993
50-30-03-08082	Agricultural complex consisting of an irrigation ditch, a spillway, and sluice gates	Runyon et al. 2014
50-30-03-08084	Cultural layer containing scattered historic materials dating to early twentieth century	Runyon et al. 2014
50-30-03-08085	Historic pit feature	Runyon et al. 2014
50-30-03-08900	Fort Alexander	McCoy 1973
50-30-03-09371	Wilcox Beach House	Historic Hawaii Foundation
50-30-03-09382	Hanalei Wharf (Pier)	Historic Hawaii Foundation
50-30-03-09386	Douglas Baldwin Beach House	Historic Hawaii Foundation
50-30-03-09387	Hanalei Elementary School Building	Historic Hawaii Foundation
50-30-03-09388	Say Dock House	Historic Hawaii Foundation

SIHP #	Site Type	Reference
50-30-03-09396	Kauai Belt Road	Fong 2006; Historic Hawaii Foundation; Runyon et al. 2014
System 22	Irrigation system	Earle 1978

4.1 Previous Archaeological Study Nearest to the Current Project Area

In 1997, CSH (Hammatt et al.) conducted an archaeological inventory survey on a 1.23-acre property approximately 100 m south of the current project area along the west side of Weke Road (see Figure 20). During the inventory survey, surface survey and subsurface testing was performed. A total of 12 backhoe-assisted trenches were excavated. No historic properties or cultural materials were identified during this study. Hammatt et al. (1997) concluded that the absence of cultural materials and historic properties was “at least in part due to its exposed location which has been susceptible to storm surf and tsunamis which have periodically scoured living surfaces.”(Hammatt et al. 1997:41).

4.2 Background Summary and Predictive Model

Background research indicates continuous use of lands throughout the Hanalei area from pre-Contact through to modern times. Located at the mouth of the Hanalei River, this area would seem optimal for habitation because of its proximity to available resources. LCA documentation supports and early historic accounts indicate the presence of cultivated lo‘i fields and other agricultural pursuits in close proximity, but LCA 52 in the project area claims is for a house lot.

The archaeological exploration in the project area shows the presence of a modern A horizon in some areas, but contains no evidence of pre-Contact Hawaiian use of the area. Historic use is indicated by few ceramic and bottle glass fragments that are predominantly of twentieth century age, the oldest possibly dating to the 1880s but also in production into the 1910s. While the A horizon matrix is mostly silty sand that is probably native to the sand bar, it appears mixed with fill material imported for the purpose of landscaping around the former twentieth century commercial establishments here as well as construction of the existing park facilities. The dynamic interaction of the ocean and river currents are evident in a natural undisturbed state of deposition in the sediments below the modern A horizon to the water table.

The nineteenth century saw the Hawaiian-evolved landscape transformed by the interventions of newly arrived Euro-American missionaries, entrepreneurs, settlers, and adventurers. Early historic accounts and photos (Damon 1931) indicate the current project was the location of the first Roman Catholic Church in Hanalei. The Catholic Chapel was built on land purchased 10 October 1849 by Frenchman John Brosseau, who secured a grant for the land from King Kamehameha III (Kauikeaouli). When Brosseau died at Moloa‘a on 21 January 1850, the land was bought by Henry Rhodes, who then willed it to his brother, sea captain Godfrey Rhodes. Godfrey and his wife Anna Louisa then deeded the Hanalei land to Father Maudet in 1860 for the Catholic chapel (Damon 1931:341).

Land use in the vicinity of the project area in the twentieth century ranged from rice and taro production to tourism. The project area became the focus of tourism while elsewhere in wetlands rice cultivation was undertaken beginning in the late 1800s and continued into the 1930s with some success. Taro production was also a gainful enterprise in the first half of the twentieth century and was cultivated alongside rice in the fields.

Early maps show several LCAs in the near vicinity as well and a single LCA within the project area awarded to John Brosseau. The fragmented piece of human bone and the predominantly twentieth-century artifacts in the A-horizon indicate a very modern mixed cultural layer is present in the project area. However unlikely the prospect of finding pre-Contact cultural resources due to the dynamic nature of sediment deposition in the project area and the heavy historic use imposed by modern tourism and park infrastructure, pockets of traditional use could still be present. Subsurface material such as midden features, trash pits, and/or burials, as well as the remnants of historical housing and infrastructure, are likely to exist within the project area.

Section 5 Results of Fieldwork

All fieldwork for this project was conducted under CSH's annual archaeological permit number 12-04 issued by SHPD per HAR §13-282, and also under the general supervision of Hallett H. Hammatt, Ph.D. (principal investigator).

On 11 February 2015, CSH archaeologists William Folk, B.A., Gerald Ida, B.A., and Missy Kamai, B.A. surveyed the current project area and started conducting subsurface testing. Subsurface testing consisted of backhoe-assisted trenches. The subsurface testing was concluded 12 February 2015 by CSH archaeologists Gerald Ida, B.A. and Missy Kamai, B.A.

During the subsurface testing, an unidentified mammal bone was discovered in the back dirt. CSH brought in a qualified osteologist to determine whether the unidentified bone was animal or human. CSH Osteologist Malina Reveal, M.Sc., determined the bone was human. See Appendix B for Osteological Field Investigation Report.

5.1 Archaeological Survey Findings

No historic properties were identified during the surface survey portion of this archaeological inventory survey. It should be noted that there were structures in the current project area but all of the structures were modern. The structures observed include a large tent, an open wooden structure (Figure 22), and a bathroom (Figure 23). There is a small open shower (see Figure 23) and a modern but no longer used boat wash-down area at the northeast corner of the project area (Figure 24).



Figure 22. Photo of open modern wooden structure in the current project area, view to north



Figure 23. Photo of bathroom, not in use (left) and open shower, not in use (right of small white sign) in project area, view to north



Figure 24. Photo of excavation of T-1 (foreground) and boat wash-down area (not in use, background) at the northeast corner of current project area, view to northeast

5.2 Subsurface Testing Results

This section provides an overview of the stratigraphy observed within the six test trenches excavated in the project area (Figure 25). For detailed information regarding each of the excavated trenches, please refer to the test excavation profiles, sediment descriptions, and photographs that follow this summary discussion. In general, the stratigraphy observed in T-1 through T-3 remained consistent, basically consisting of four strata and sub-designated alphabetically (a–z) when necessary. The stratigraphy observed in T-4 through T-6 shows signs of disturbance from possible previous construction as seen in T-6 and weathering phenomenon as seen in the micro-layering of sediments seen in T-4 and T-5.

During the course of fieldwork within the project area, one newly identified historic property, SIHP # 50-30-03-2277, a human skeletal fragment, was identified during the subsurface testing of T-2. An osteological report is appended (Appendix B). The bone fragment is part of the distal end of a left tibia with old fractures that are worn. Based on the dark gray sandy loam adhering to the bone, it appears to have been moved from its original location by grading of the old historic A horizon and mixing with the modern landscaping fill introduced to the project area in the twentieth century.

Artifacts, discussed in greater detail in Section 7, were found in three of the test excavations. These consist of a bottle and bottle glass fragments, ceramic sherds and a clay brick fragment, metal objects, and plastic items. The bottle has a plastic screw on top (probably 1950s production) while the datable pieces of bottle glass also suggest twentieth century age (post-1903 to 1908). An identifiable ceramic sherd pottery mark dates to 1883-1913 for manufacture. The plastic and metal artifacts are certainly twentieth century in age.

The artifacts recovered from test excavation trench T-5 were within the upper level fill and graded layer Stratum Ib. These objects may have come in with the landscaping fill or be local and moved about in grading of the area for recent commercial activities. Artifacts from T-6 at the west extreme of the project area in the parking lot adjacent to the bath house are within a deep trash pit fill (Stratum II). These are clearly modern, dumped and buried as a means of disposal.

5.3 Backhoe Trench Documentation

The location of test trenches are within the likely area of potential improvements for the project area (Figure 25). The westernmost portion of the project area is located within the shoreline set back and will not be developed so no test trenches were placed in that area. All test trenches measured 20 ft (approximately 6.0 m) in length by 3 ft (approximately 1.0 m) wide with depths ranging from 120 cmbs (T-4) to 180 cmbs (T-6). The entire length of the trenches was documented.

5.3.1 Backhoe Trench 1 (T-1)

T-1, located along the eastern portion of the current project area (Figure 25) runs in a north/south direction. The profile was recorded along the east side with a maximum depth of 128 cmbs. The stratigraphy observed at the location of T-1 consisted of fill material (Strata Ia and Ib), heavily disturbed sandy silt material mixed with sand (Stratum II), bedded olivine sand (Stratum III), and bedded mixture of basalt and coral sand (Stratum IV). The water table was observed at 124 cmbs. No cultural deposits were observed in this trench (Figure 26, Figure 27, and Table 4).

5.3.2 Backhoe Trench 2 (T-2)

T-2, located approximately 15 m northwest of T-1 (Figure 25) runs in a north/south direction. The profile was recorded along the eastern sidewall with a maximum depth of 125 cmbs. The stratigraphy observed at the location of T-2 consisted of fill material with modern trash (Strata Ia and Ib), a buried A horizon of sandy silt material (Stratum II), olivine sand (Stratum III), and bedded and micro layered sand (Strata IVa and IVb). The water table was observed at 110 cmbs. A pit feature was observed at the northern end of the trench with Strata III, IVa, and IVb. Cultural materials observed within the east sidewall of the trench consist of pig skull fragments and an in situ cat burial in Stratum II. The cat burial pit was observed intruded from Statum II into Strata III and IVb (Figure 28, Figure 29, and Table 5). A large triton shell fragment was observed and collected with Stratum III's back dirt. While excavating the central area of T-2, a human skeletal fragment was discovered in the back dirt. Work was stopped immediately to determine if other skeletal remains were also uncovered. The single human skeletal fragment was the only human remains found within the back dirt and trench. CSH's osteological determination was that the human skeletal fragment is an adult distal tibia fragment. See Appendix B for Osteological Field Investigation Report.



Figure 25. Location of test excavation trenches within the current project area (Google Earth 2013)



Figure 26. Photograph of T-1 east sidewall, view to north

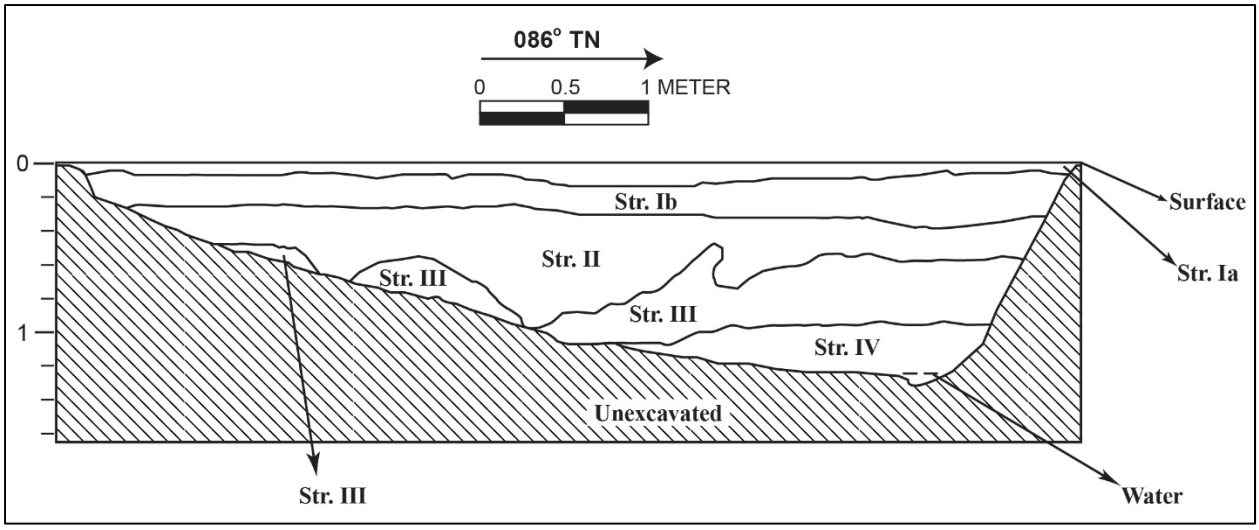


Figure 27. Profile of T-1 east sidewall

Table 4. T-1 Stratigraphic Description

Stratum	Depth (cmbs)	Description of Sediment
Ia	0–13	Fill; 10YR 3/3, dark brown; sandy silt; weak grade, fine size, granular type; moist, loose consistence; weak cementation; slightly plastic; mixed origin; clear, smooth lower boundary; many, very fine to fine roots; landscape fill
Ib	3–36	Fill; clear, smooth lower boundary; fine, common roots; quarry gravel fill
II	26–95	A horizon; 10YR 2/2, very dark brown; sandy silt, weak grade, fine size, granular type; moist, very friable consistence; weak cementation; slightly plastic; mixed origin; clear, wavy lower boundary; few, fine roots; mixed, disturbed (mottled) layer with Str. III material
III	47–103	B horizon; 2.5Y 3/3, dark olive brown; structureless (single-grain) fine sand; moist, very friable consistence; weak cementation; non-plastic; mixed origin; abrupt, smooth lower boundary; few, medium to coarse roots; olivine sand bedded
IV	95–128+	C horizon; 10YR 2/2, very dark brown; structureless (single-grain) fine sand; moist, very friable consistence; non-plastic; mixed origin; few, fine roots; basalt and coral sand bedded (micro layered)



Figure 28. Photograph of T-2 east sidewall, view to south

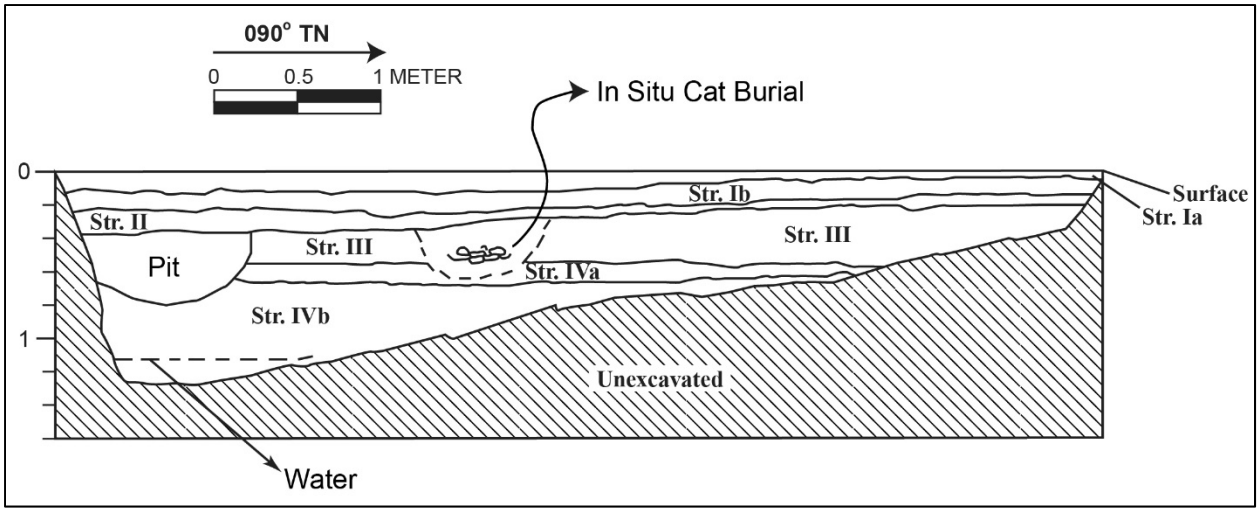


Figure 29. Profile of T-2 east sidewall

Table 5. T-2 Stratigraphic Description

Stratum	Depth (cmbs)	Description of Sediment
Ia	0–12	Fill; 10YR 3/3, dark brown; sandy clay; weak grade, medium size, granular type; moist, loose consistence; weak cementation; slightly plastic; mixed origin; clear, smooth lower boundary; many, very fine to fine roots; modern trash (aluminum can) observed; landscape fill
Ib	3–28	Fill; 10YR 3/2, very dark grayish brown; structureless (single-grain) silty sand; moist, very friable consistence; weak cementation; non-plastic; mixed origin; clear, smooth lower boundary; common, fine roots
II	15–37	A horizon; 10YR 2/2, very dark brown; sandy silt; weak grade, fine size, granular type; moist, very friable consistence; weak cementation; non-plastic; mixed origin; abrupt, smooth lower boundary; few, medium roots; mixed, buried A horizon
III	25–60	B horizon; 2.5Y 3/3, dark olive brown; structureless (single-grain) fine sand; moist, very friable consistence; weak cementation; non-plastic; mixed origin; abrupt, smooth lower boundary; few, medium to coarse roots; complete cat burial observed intruded from Stratum II; olivine sand
IVa	53–68	10YR 3/1, very dark gray; structureless (single-grain) medium sand; moist, very friable consistence; weak cementation; non-plastic; mixed origin; clear, smooth lower boundary; few, fine roots; mostly basalt sand with olivine and coral; possible event related, in weathering
IVb	62–125+	C horizon; 10YR 2/2, very dark brown; structureless (single-grain) fine sand; moist, very friable consistence; weak cementation; non-plastic; mixed origin; few, fine roots; bedded, micro layered

5.3.3 Backhoe Trench 3 (T-3)

T-3, located just south of the large green building (see Figure 25) runs in a rough northwest/southeast direction. The profile was recorded along the south sidewall with a maximum depth of 150 cmbs. The stratigraphy observed at the location of T-3 consisted of landscape fill with modern trash (Stratum I), a buried A horizon of sandy silt material (Stratum II), bedded and micro-layered olivine fine sand (Stratum III), and grayish brown bedded sand material, C horizon (Stratum IV). The water table was observed at 145 cmbs. No cultural deposits were observed in this trench (Figure 30, Figure 31, and Table 6).

5.3.4 Backhoe Trench 4 (T-4)

T-4, located approximately 20 m southwest of T-1 along the southeastern portion of the project area, just north of the fence line and a dirt road (see Figure 25) runs in an east/west direction. The profile was recorded along the north sidewall with a maximum depth of 120 cmbs. The stratigraphy observed at the location of T-4 consisted of various types of fill and disturbed layers, landscape fill with quarry gravel (Stratum Ia), fill material with no gravel (Stratum Ib), a disturbed layer of Stratum II with Ib material (Stratum Ic), and various uniformed bedding and micro-layered sand: basalt sand; coral sand; olivine; and feldspar, C horizon (Stratum II). The water table was observed at 110 cmbs. No cultural deposits were observed in this trench (Figure 32, Figure 33, and Table 7).

5.3.5 Backhoe Trench 5 (T-5)

T-5, located along the south central portion of the project area, just north of the fence line and a dirt road (see Figure 25), runs in an east/west direction. The profile was recorded along the south sidewall with a maximum depth of 128 cmbs. The stratigraphy observed at the location of T-5 consisted of landscape fill with quarry gravel (Stratum Ia), landscape fill with no gravel but containing modern trash (Stratum Ib), and C horizon, coarse bedded and micro-layered sand (Stratum II). The water table was observed at 120 cmbs. Modern trash observed in Stratum Ib includes bottle glass fragments, ceramic shards, a red brick, pig bone confirmed by CSH Osteologist Malina Reveal, M.Sc., and marine midden (*Charonia* sp. fragment and *Nerita polita*) (Figure 34, Figure 35, and Table 8).

5.3.6 Backhoe Trench 6 (T-6)

T-6, located in the east dirt parking lot of the project area, just northeast of the existing comfort station (see Figure 25), runs in a rough northeast/southwest direction. The profile was recorded along the east sidewall with a maximum depth of 180 cmbs. The stratigraphy observed at the location of T-6 consisted of windblown sand with micro shell fragments disturbed by the parking lot surface (Stratum I), sand with clay material, boulders (Figure 38 and Figure 39) and modern trash (Stratum II), and grayish brown sand containing less than 1% charcoal, C horizon (Stratum III). Modern trash observed in Stratum II includes bottle glass, cane slag, and two pieces of a motor (axel) (Figure 36, Figure 37, Table 9, and Figure 38 through Figure 41).



Figure 30. Photograph of T-3 south sidewall, view to southeast

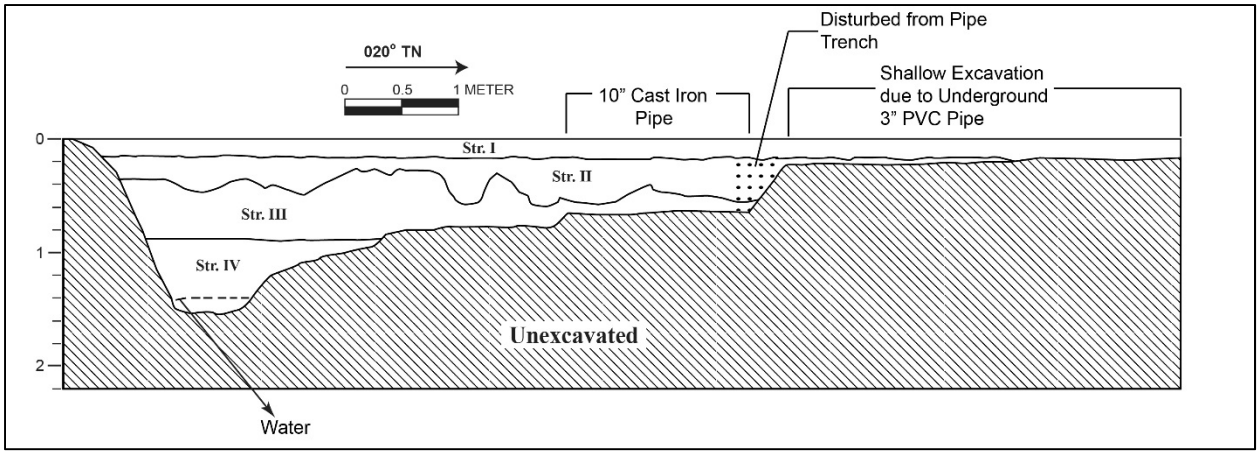


Figure 31. Profile of T-3 south sidewall

Table 6. T-3 Stratigraphic Description

Stratum	Depth (cmbs)	Description of Sediment
I	0–15	Fill; 10YR 3/2, very dark grayish brown; structureless (single-grain) silty sand; moist, friable consistence; weak cementation; non-plastic; mixed origin; clear, smooth lower boundary; many, fine to medium roots; modern trash (plastic fork, green bottle glass) observed; landscape fill
II	15–55	A horizon; 10YR 2/2, very dark brown; sandy silt; weak grade, fine size, granular type; moist, very friable consistence; weak cementation; non-plastic; mixed origin; abrupt, wavy lower boundary; common, medium to coarse roots; charcoal flecks observed, buried A horizon
III	27–87	B horizon; 2.5Y 3/3, dark olive brown; structureless (single-grain) fine sand; moist, very friable consistence; weak cementation; non-plastic; mixed origin; abrupt, smooth lower boundary; few, coarse roots; 80% olivine sand, bedded and micro layered near bottom of strata
IV	82–150+	C horizon; 10YR 5/2, grayish brown; structureless (single-grain) medium sand; moist, very friable and wet, non-sticky consistence; weak cementation; non-plastic; marine origin; few, coarse roots; top of strata is bedded, micro-layered



Figure 32. Photograph of T-4 north sidewall, view to east

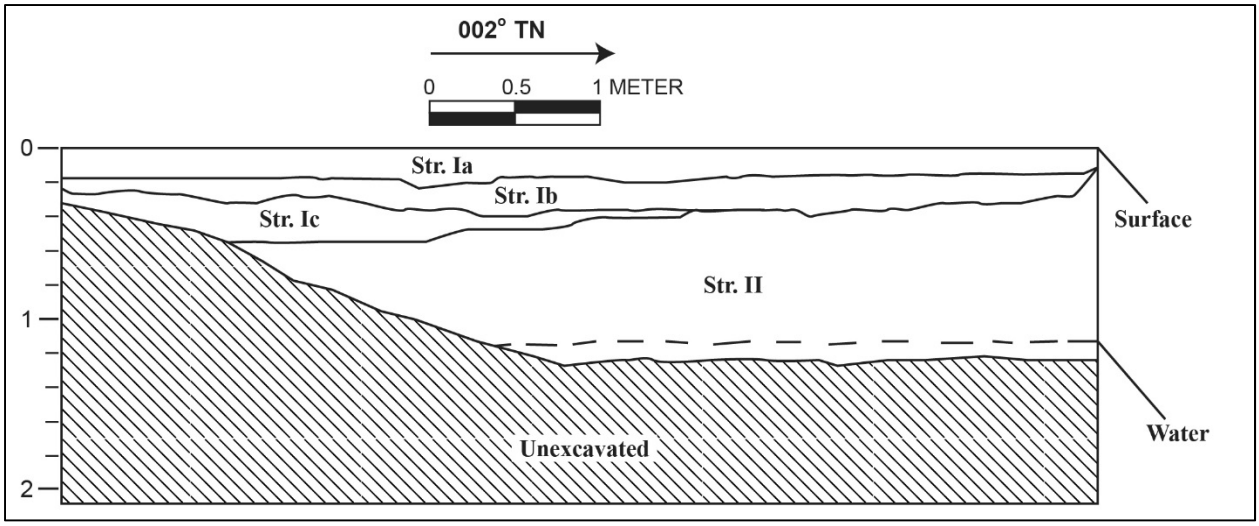


Figure 33. Profile of T-4 north sidewall

Table 7. T-4 Stratigraphic Description

Stratum	Depth (cmbs)	Description of Sediment
Ia	0–19	Fill; 10YR 3/2, very dark grayish brown; structureless (single-grain) silty sand; moist, friable consistence; weak cementation; non-plastic; mixed origin; clear, smooth lower boundary; many, fine to medium roots; contains 50% quarry gravel; landscape fill
Ib	11–39	Fill; 10YR 2/2, very dark brown; clay loam; weak grade, medium size, blocky type; moist, friable consistence; weak cementation; plastic; terrigenous origin; clear, wavy lower boundary; common, fine to medium roots; micro crystalist and small land snails, less than 5%
Ic	21–50	10YR 3/3, dark brown; silt loam; weak grade, fine size, blocky type; moist, very friable and wet, slightly sticky consistence; weak cementation; slightly plastic; terrigenous origin; very abrupt, wavy lower boundary; few, medium roots; disturbed layer of Stratum II with Stratum Ib, discontinuous lenses observed
II	31–120	C horizon; 10YR 2/1, black with mottling of 10YR 7/1, light gray; structureless (single-grain) very fine to medium sand; moist, loose and wet, non-sticky consistence; weak cementation; non-plastic; marine origin; uniform bedding of various types of sand, basalt sand, coral sand, olivine, and feldspar; basalt and coral sand at water level



Figure 34. Photograph of T-5 south sidewall, view to southeast

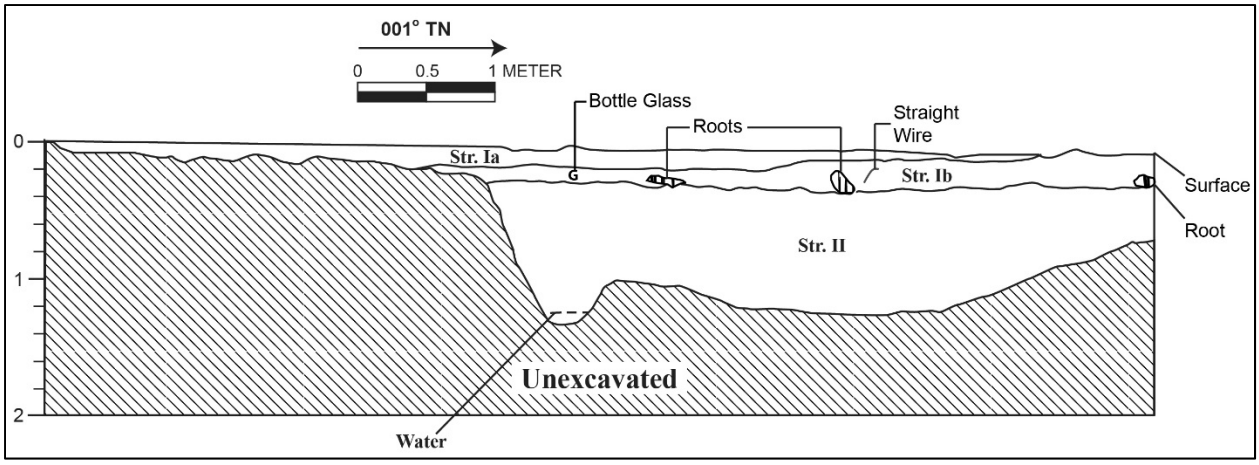


Figure 35. Profile of T-5 south sidewall

Table 8. T-5 Stratigraphic Description

Stratum	Depth (cmbs)	Description of Sediment
Ia	0–15	Fill; 10YR 3/2, very dark grayish brown; structureless (single-grain) silty sand; moist, friable consistence; weak cementation; non-plastic; mixed origin; clear, smooth lower boundary; many, fine roots; contains more than 50% quarry gravel; landscape fill
Ib	0–30	10YR 3/2, very dark grayish brown; structureless (single-grain) silty sand; moist, friable consistence; weak cementation; non-plastic; mixed origin; abrupt, smooth lower boundary; common, medium to coarse roots; marine midden, triton (charonia) and kupe‘e (neritidae), glass, wire, pig bones, ceramic fragments, and a red brick; landscape fill with no gravel; few discontinuous lenses of sand between Strata Ia and Ib
II	24–128	C horizon; 10YR 5/2, grayish brown; structureless (single-grain) very fine sand; moist, very friable consistence; weak cementation; non-plastic; marine origin; few, coarse roots; upper portion of Stratum II shows sand as dipped windblown deposit, bedded and micro-layered lower portion of strata



Figure 36. Photograph of T-6 east sidewall, view to northeast

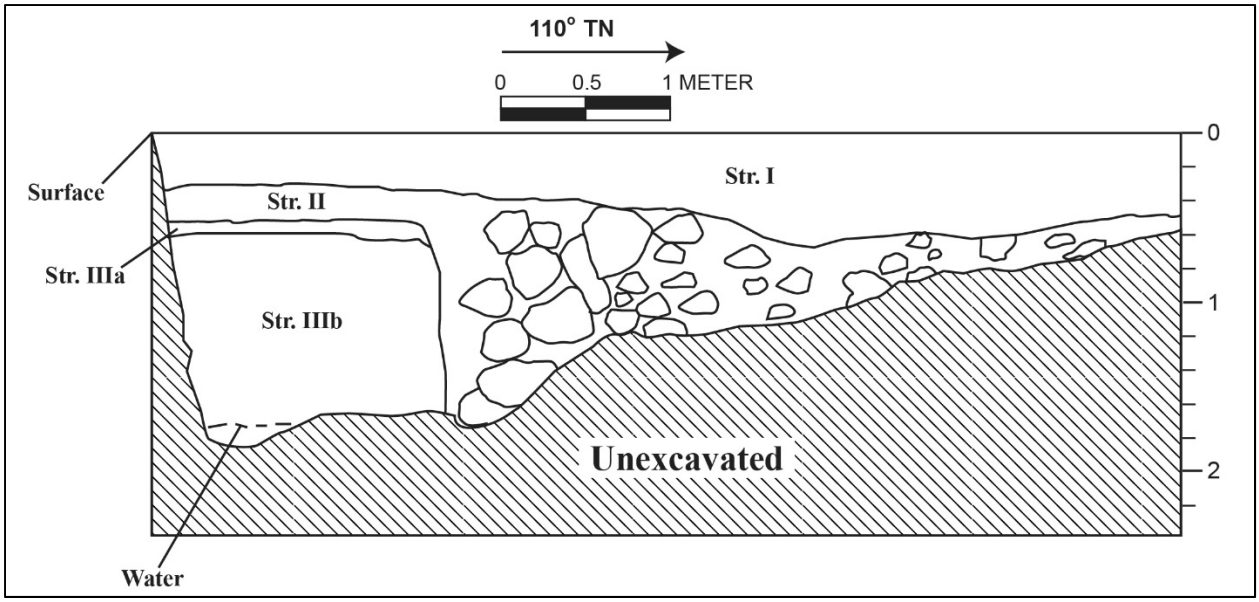


Figure 37. Profile of T-6 east sidewall

Table 9. T-6 Stratigraphic Description

Stratum	Depth (cmbs)	Description of Sediment
I	0–75	Parking lot surface; 10YR 6/2, light brownish gray; structureless (single-grain) sand; moist, loose consistence; weak cementation; non-plastic; marine origin; clear, wavy lower boundary; few, fine to medium roots; blown sand with micro shell fragment, disturbed by parking lot surface
II	30–169	Fill; 10YR 4/2.5, dark grayish brown; structureless (single-grain) sand with 50% mottling of 5YR 3/3, dark reddish brown, clay material; moist, firm consistence; weak cementation; non-plastic; mixed origin; clear, broken/discontinuous lower boundary; boulders with clay material, clay material very plastic and slightly sticky; cane slag, bottle glass, and metal observed
IIIa	50–64	A horizon; 10YR 5/2, grayish brown; structureless (single-grain) sand; moist, loose consistence; weak cementation; non-plastic; marine origin; abrupt, wavy lower boundary; charcoal flecks observed; buried A horizon
IIIb	60–180	A horizon; 10YR 4/2, dark grayish brown; structureless (single-grain) sand; moist, very friable consistence; weak cementation; non-plastic; marine origin; bedding at lower portion of strata



Figure 38. Photo of boulders being excavated out of T-6, view to northwest



Figure 39. Close up view of boulders excavated out of T-6, downward view



Figure 40. Photo of motor part excavated out of T-6, downward view to north



Figure 41. Photo of motor part excavated out of T-6, part fits into motor part above, downward view

Section 6 Site Description

A single fragment of human remains was identified within Backhoe Trench 2 (T-2) in the current project area during this AIS. It is summarized in Table 10 and its placement is depicted on Figure 42.

Table 10. Historic Property Identified within the Current Project Area

SIHP #	Formal Type	Function
50-30-03-2277	Human Burial	Human Interment

6.1 SHIP # 50-30-03-2277

FORMAL TYPE:	Human burial
FUNCTION:	Human interment
NUMBER OF FEATURES:	0
AGE:	Indeterminate
TEST EXCAVATIONS:	T-2
TAX MAP KEY:	
LAND JURISDICTION:	Kaua‘i County
PREVIOUS DOCUMENTATION:	None

SIHP # -2277 consists of a single fragment of human remains identified during the subsurface testing of the AIS of the current project area. The skeletal fragment was discovered while excavating Backhoe Trench 2 (T-2). The fragment was discovered in the back dirt and displayed an association with the Stratum I layers of landscaping fill based on material adhering to the bone. No other human remains were identified during the trenching of T-3. The GPS location is 448992E/2456489N (UTM Zone 4N; NAD 83).

The disarticulated skeletal fragment was discovered 12 February 2015 and confirmed on 19 February 2015 by CSH’s Forensic and Biological Anthropologist Malina Reveal, M.Sc. The skeletal fragment was identified in the back dirt during subsurface testing within the current project area in T-2. T-2 measured 6.2 m (l) by 1.1 m (w) by 1.25 m (d). The skeletal fragment was identified as the left distal tibia fragment of an adult. It was determined that the fragment is likely Native Hawaiian based on archaeological sediment evidence and geographical location (Reveal 2015). See Appendix B for the Osteological Field Investigation Report.



Figure 42. Location of SIHP # -2277 in Backhoe Trench 2 (T-2) within the current project area (Google Earth 2013)

Section 7 Results of Laboratory Analysis

Seventeen artifacts and three pieces marine midden were collected from the excavations at T-2 (one marine midden), T-5 (ten artifacts and two marine midden), and T-6 (seven artifacts) (Table 11). These consist of one glass bottle (Figure 43), eight glass bottle fragments (Figure 43 and Figure 44), five ceramic fragments (Figure 45), one red brick fragment (Figure 46), one plastic identification card (Figure 47), and one wrought iron gate fragment (Figure 48). A piece of cane slag was collected (cross reference figure) and three marine midden was collected (Figure 49 and Figure 50).

Although there are several bottle glass fragments that cannot be dated, all of the bottles with manufacturing marks indicate the bottles are machine-made, not blown by a glassblower. Michael Owens invented the Automatic Bottle Machine in 1903, and wide-mouth bottles were blown in this machine by 1905 and narrow-necked bottles by 1908 (BLM/SHA 2014_Glass-Making).

A few of the non-glass artifacts have some dating information. The partial emblem in the back of a ceramic sherd (Acc. # 9) shows a green label of the Royal Coat of Arms with the words “Royal Johnso Engl” on it. The markings in the back of the ceramic sherd indicate the stoneware was a mark of the Royal Ironstone China, Johnson Bros, England pottery. The marking dates from 1883-1913 (North Staffordshire Pottery Marks 2015). An intact semi-circular shaped glass bottle (Acc. # 6) with its hard plastic screw top cover can most likely be dated to post-1957 with the invention and mass production of polypropylene (Spude 2002).

In summary, most of the artifacts appear to be habitation and activity related and are probably associated with the Catholic Church or introduced to the site in fill layers. In more recent times the eastern portion of the project area was privately owned and leased to various companies before being purchased by the County (The Garden Island 2012).

Table 11. Summary of Midden and Artifacts

Provenience	Acc. #	Length (cm)	Width (cm)	Weight (grams)	Material	Type	Origin; Date	Description
T-2, Str. III, 25-60 cmbs	1	13.0	8.0	136	Shell	Midden		Fragment of a triton shell (charonia)
T-5, Str. Ib, 0-30 cmbs	2	2.8	2.2	4	Shell	Midden		Complete kupe‘e (neritidae)
T-5, Str. Ib, 0-30 cmbs	3	5.3	4.2	36	Shell	Midden		Complete turbo shell (turbinidae) with a small chip from current project excavation activities
T-5, Str. Ib, 0-30 cmbs	4	11	11	984	Clay	Brick		Red clay brick fragment
T-5, Str. Ib, 0-30 cmbs	5	30.3	18.5	946	Iron	Gate		Possible wrought iron gate fragment
T-5, Str. Ib, 0-30 cmbs	6	6.4	4.6	40	Glass	Bottle	Post-1957	Colorless semi-circular shaped type glass bottle with hard plastic screw top intact; plastic cap is white and gray in color; possible nail polish bottle with missing brush; embossed markings of “–” on top of each other and an embossed “5” below that; bottle most likely dates to post-1957 with the invention and production of polypropylene plastic (Spude 2002)
T-5, Str. Ib, 0-30 cmbs	7	4.1	3.0	10	Glass	Glass		Colorless bottle glass fragment
T-5, Str. Ib, 0-30 cmbs	8	3.7	2.6	8	Glass	Glass		Blue-green glass bottle fragment

Provenience	Acc. #	Length (cm)	Width (cm)	Weight (grams)	Material	Type	Origin; Date	Description
T-5, Str. Ib, 0-30 cmbs	9	4.4	4.1	16	Ceramic	Pottery	1883-1913	White glazed ceramic fragment with green tinged label in back; partial label shows the Royal Coat of Arms with words “Royal Johnso Engl” that indicates stoneware was a mark of the Royal Ironstone China, Johnson Bros, England pottery; marking dates from 1883-1913 (North Staffordshire Pottery Marks 2015)
T-5, Str. Ib, 0-30 cmbs	10	7.0	4.7	28	Ceramic	Pottery	1883-1913	White glazed ceramic fragment (same as Acc. # 9)
T-5, Str. Ib, 0-30 cmbs	11	4.9	4.6	16	Ceramic	Pottery	1883-1913	White glazed ceramic fragment (same as Acc. # 9)
T-5, Str. Ib, 0-30 cmbs	12	5.4	4.5	18	Ceramic	Pottery	1883-1913	White glazed ceramic fragment (same as Acc. # 9)
T-5, Str. Ib, 0-30 cmbs	13	2.9	2.5	8	Ceramic	Pottery	1883-1913	White glazed ceramic fragment (same as Acc. # 9)
T-6, Str. II, 30-169 cmbs	14	3.3	3.0	8	Cane slag			Cane slag fragment
T-6, Str. II, 30-169 cmbs	15	8.2	7.4	112	Glass	Bottle	Post-1895	Aqua glass bottle base fragment; embossed with “N B B G CO” and the number “60” below that which is mark for North Baltimore Bottle & Glass Company that started in Ohio in 1887 then moved to Indiana in 1895 (Terry 2003)
T-6, Str. II, 30-169 cmbs	16	8.0	5.1	36	Glass	Bottle	Post-1895	Aqua glass bottle fragment, same exact type glass fragment and oxidation as Acc. # 15
T-6, Str. II, 30-169 cmbs	17	7.4	5.8	36	Glass	Bottle		Colorless glass bottle fragment

Provenience	Acc. #	Length (cm)	Width (cm)	Weight (grams)	Material	Type	Origin; Date	Description
T-6, Str. II, 30-169 cmbs	18	2.0	1.7	4	Glass	Bottle		Colorless glass bottle fragment
T-6, Str. II, 30-169 cmbs	19	7.9	5.0	18	Glass	Bottle		Aqua glass bottle fragment
T-6, Str. II, 30-169 cmbs	20	6.0	4.4	18	Glass	Bottle		Aqua glass bottle fragment
T-6, Str. II, 30-169 cmbs	21	9.6	5.4	2	Plastic	Card	1956-1973	Plastic G.E.M. International Inc. membership card; embossed with identification markings: Expiration date of “FEB 8” Reg. No. “006 045089 6 ELAINE B WAKEFIELD 651 E 79TH MPLS MINN 55420”; G.E.M. Membership Department Store, also known as G.E.X or G.E.S, was a chain of discount stores in the United States and Canada; chain membership was directed to government employees; acronym stood for “Government Employees Mart”; headquarters was in Detroit, Michigan; last store closed in Kansas in 1973 (Wikipedia 2015)



Figure 43. Photo of glass bottle with plastic screw cap (Acc. # 6) and bottle glass fragments (Acc. #s 7 and 8)

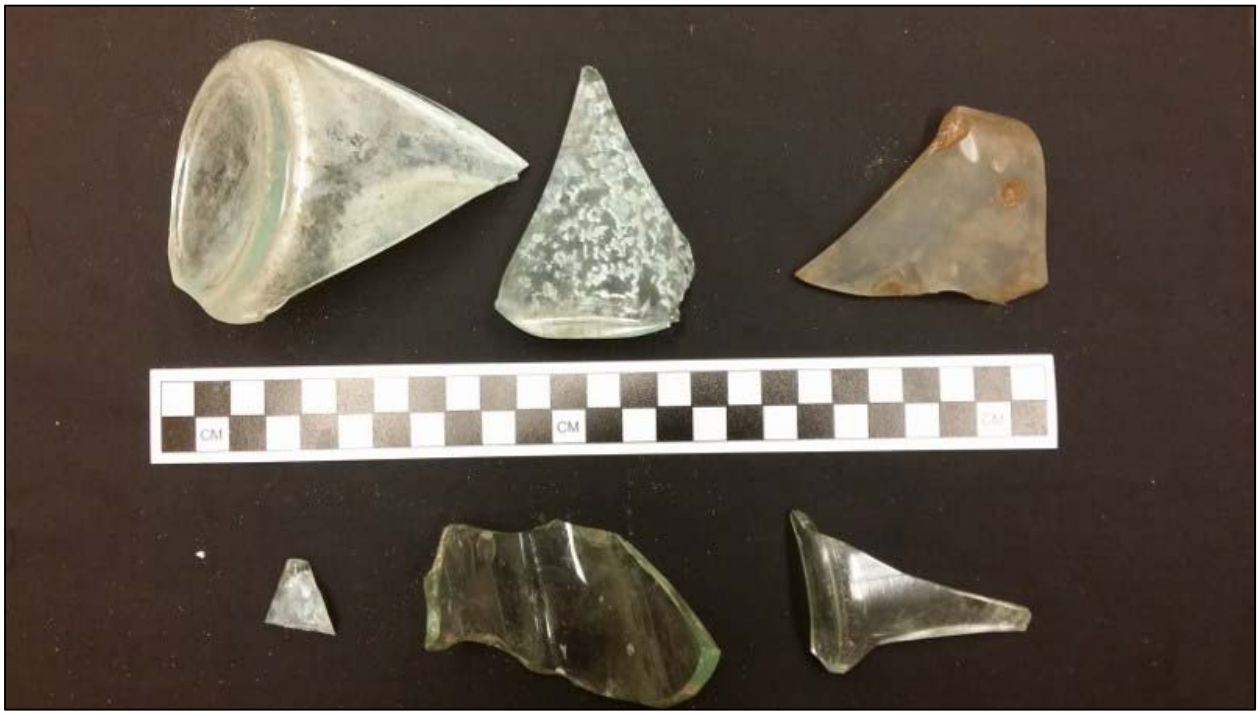


Figure 44. Photo of bottle glass fragments, datable bottle fragments (Acc. #s 15 and 16), and other bottle glass fragments (Acc. #s 17 through 20)



Figure 45. Ceramic sherds, possibly from same pottery discovered in T-5, Str. Ib, from left to right (Acc. #s 10 through 13)



Figure 46. Photo of red clay brick fragment (Acc. # 4), discovered in T-5, Str. Ib



Figure 47. Photo of plastic membership card (Acc. # 21) discovered in T-6, Str. II



Figure 48. Photo of possible piece of a wrought iron gate (Acc. # 5), discovered in T-5, Str. Ib



Figure 49. Photo of triton shell fragment (*Charonia* sp.) (Acc. # 1) discovered in T-2, Str. III



Figure 50. Photo of Hawaiian Top Shell (*Turbo sandwicesis*) (Acc. # 3) and a *kupe‘e* (*Nerita polita*) (Acc. # 2) discovered in T-5, Str. Ib

Section 8 Summary and Interpretation

Project related fieldwork consisted of a 100% pedestrian inspection followed by subsurface testing within the current project area. No historic properties were identified during the pedestrian survey, although it should be noted that modern buildings were observed in the current project area. These buildings and/or structures include a large wooden building, a no longer used comfort station, and a structure built of metal pipes and a tarp. These structure were identified in the eastern portion of the current project area. The western portion of the project area consists of Black Pot Beach Park (also known as Hanalei Park).

Subsurface testing included the excavation of six backhoe trenches, five trenches located within the eastern portion of the project area and a single trench in the dirt parking lot of the beach park. Strata consisted of various types of landscape fill of sandy silt, sandy clay, silty sand, and course beach sand. With the exception of T-6, all backhoe trenches have a stratum of landscape fill that consists of more than 50% quarry gravel. During the fieldwork portion at the eastern end of the project area within the fenced in area, verbal communication with the previous land owner confirmed the quarry gravel present was placed for a roadway and parking area (verbal communication with Mike Sheehan and his son Keola).

Artifacts were found in only two of the six test excavations during the AIS fieldwork. The test excavation T-5 is located along the south boundary of the project area where the introduced crushed blue rock gravel is most prevalent. The artifacts in T-5 were located beneath the gravel in Stratum Ib and consisted of a small bottle, bottle glass fragments, a piece of a clay brick of probable post-1973 age, ceramic fragments, and a piece of iron. The identifiable ceramic fragments were manufactured between 1883 and 1913. The small bottle is post-1957.

Test excavation T-6 is located in the west portion of the project area in the existing parking lot adjacent to the public bath facilities. The excavation identified a modern small-basalt-boulder filled pit mixed with clay soil and sandy material. Trash in the pit included fragmented axle parts of a heavy equipment type motor vehicle (not collected), a few early (post-1895) and updateable bottle glass fragments, a piece of slag (probably of coal from a boiler), a plastic GEM store membership card, and a modern plastic fork (not collected).

It is probable the artifacts from T-5 were brought in with the gravel fill layers or were present in the old A horizon and further dispersed in grading of the property for twentieth century tourism business uses. The very low density of artifacts in the test excavations and the undisturbed, in situ, micro-layering of the fine sand sediments of basalt, coral, and olivine comprising the strata below the A horizon suggest a long history of accretion in the project area with active disturbance only to the surface of the A horizon by wind, high surf, and flood waters until modern development introduced fills and heavy equipment to grub and grade for the construction of existing buildings and parking areas.

Faunal materials observed and collected consisted of a single unaltered *kupe‘e* (*Nerita polita*), and a Top Shell (*Turbo sandwicensis)* from T-5 Stratum Ib. A few butchered pig bones (not collected) were also observed in T-5 Stratum Ib. A *Charonia* sp. or triton shell fragment, and fragments of butchered pig cranial bones (not collected) were found in T-2. While excavating T-2, a complete cat (*Felis catus*) burial was observed along the east sidewall of the trench in a pit originating in Stratum II.

During monitoring of the excavation of T-2, a single human skeletal fragment was identified in the back dirt. Work was stopped immediately to determine if other skeletal remains were also uncovered. The single human skeletal fragment was the only human remains found within the back dirt and trench. CSH's osteological determination was that the human skeletal fragment is an adult distal tibia fragment. See Appendix B for Osteological Field Investigation Report.

The single human bone fragment (SIHP # -2277) identified during the inventory survey probably relates to pre-Contact habitation and activity areas in the project area. The bone fragment was not in situ but did have dark gray sandy loam consistent with the local A horizon that has been made discontinuous by grubbing and grading, and mixed with crushed rock gravel and other clayey alluvial sediments not native to the sand spit at the Hanalei river mouth. The findings of this archaeological inventory survey support the proposed model of impermanent pre-Contact use probably due to the dynamic interaction of major river and northern exposure to the ocean, and more permanent post-Contact land use beginning with a house lot around the time of the Māhele and Kuleana Act and subsequently coming under heavy use for modern ocean-based commercial enterprises and finally a public park.

Section 9 Significance Assessments

Historic property significance is evaluated and assessed based on the five State of Hawai‘i historic property significance criteria. To be considered significant, a historic property must possess integrity of location, design, setting, materials, workmanship, feeling, and/or association and meet one or more of the following broad cultural/historic significance criteria (in accordance with HAR §13-13-275-6):

a. Be associated with events that have made an important contribution to the broad patterns of our history;

b. Be associated with the lives of persons important in our past;

c. Embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic value;

d. Have yielded, or is likely to yield, information important for research on prehistory or history; or

e. Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group's history and cultural identity.

One new historic property was identified within the current project area. Table 12 lists the historic properties along with their significance/eligibility assessments and mitigation recommendations. These significance recommendations are included in this AISR for the review and concurrence of the SHPD.

Table 12. Archaeological Historic Property Integrity, Significance, and Mitigation Recommendations

SIHP #	Test Excavation	Formal Type/ Description	Integrity							Significance	Mitigation Recommendation
			Location	Design	Setting	Materials	Workmanship	Feeling	Association		
50-30-03-2277	T-2	Human Interment	N	N	N	Y	N	N	N	Significant per HAR §13-275-6 Criterion “e”	Preparation of a burial treatment plan and an archaeological monitoring program for the vicinity

Section 10 Project Effect and Mitigation Recommendations

The following project effect discussion and cultural resource management recommendations are intended to facilitate project planning and support the proposed project's required historic preservation consultation.

10.1 Project Effect

The proposed project will potentially affect SIHP # -2277 located within the current project area. CSH's project specific effect recommendation is "Effect, with proposed mitigation commitments" (HAR §13-275-7).

10.2 Mitigation Recommendations

This archaeological inventory survey represents a good-faith effort to identify and document the historic properties within the project area. Due to inherent limitations of any sampling strategy, it is possible additional historic properties, potentially including additional human skeletal remains and non-burial archaeological deposits, may be encountered during project-related development. In order to mitigate any potential damage to known, documented, or yet unidentified historic properties, it is recommended that project construction proceed under an archaeological monitoring program. This monitoring program will facilitate the identification and proper treatment of any additional burials that might be discovered during project construction, and will gather additional information regarding the project's non-burial archaeological deposits, should any be discovered.

CSH recommends the burial identified during the AIS (SIHP # -2277) be treated in accordance to the provisions of a burial treatment plan prepared in compliance with HAR §13-300-33. The potential construction design should also be situated to avoid, as much as possible, SIHP # -2277.

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Appendix A LCA Documentation

A.1 LCA 00052 to John Brousseau

Claim Number:	00052
Claimant Name:	Brousseau, John
Mokupuni (Island):	Kaua‘i
Moku (District):	Halele‘a
Ahupua‘a (Division):	Hanalei
‘Ili (Section):	Opukahi

No. 52, John Brosseau, Claimant, Honolulu, 6 May 1846
Foreign Register Volume 1, page 65

[Margin Note:] Survey & diagram registered Page 9 & 19 Book Survey.

The humble petition of John Brosseau, residing at Hanalei, Kauai, Hawaiian Islands, to the Commissioners for Quieting Land Titles.

Sheweth that your petitioner hath in possession a lot of land measuring 5 acres and 135 rods as per survey by Mr. Metcalf, land surveyor. And further said lot of land was granted or given to your petitioner by one Kalili, conohiekei [Konohiki] of said land, and the before-mentioned Kalili acknowledged such gift of said land of five acres & one hundred & thirty-five rods to said petitioner in the presence of his excellency G.P. Judd.

Furthermore the lot of land above mentioned having been built upon at the expense of your petitioner, and at his expense having been surveyed by Mr. Metcalf before mentioned and a copy of such survey being enclosed with this petition for the information of such Board of Commissioners & company, your petitioner begs his claim to such lot of land to be brought under consideration at the first opportunity; and if approved a patent for life granted to him by your board to prevent his being dispossessed or molested by any person whatsoever. And your petition will &c &c.
Signed, JOHN BROUSSEAU

Foreign Testimony Volume 1, page 50
Claim No. 52 resumed, Page 64, July 8.

Doctor Judd, Witness sworn, deposed, Kalili did acknowledge he had given to Claimant the land in question, but Witness advised Kalili not to remove the man, but to let him remain for the present, as it was not certain that the land belonged to himself.

Resumed page 147, vol. 3

Foreign Testimony Volume 1, pages 64-65
Claim No. 52 continued from Page 50, July 29.

Waioli, July 14, 1846

Dear Sir,

Some time last year John Brosseau, a Canadian Frenchman (called by the natives Bati) living on the western bank of the Hanalei river, drew up a request for a few acres of land adjoining his residence, which I copied for him & forwarded to Doctor Judd. In this communication was a statement that the land he wished to lease of the Government had been given him some time previously by Kalili, then Konohiki of Hanalei, or that Kalili had given his consent to his (Brosseau's) occupying it. To this statement Kalili agreed & signed his name to the paper. Brosseau being lately at Oahu, says he called on Dr Judd about said land & was directed by him to Mr. Robertson, who has charge of government papers; and said paper was not to be found. As it is supposed to be lost, Brosseau has requested me to state what I know of that paper, and write you as President of the Land Commission, and also state to you that the land he desires has been measured by Mr. Metcalf, a copy of which draft is in the archives of Government.
W[ILLIA]M RICHARDS Esq. of Honolulu
Signed E. JOHNSON

Foreign Testimony Volume 3, page 147
Claim No. 52, John Brousseau (from p50 v1)

Resolved, that a fee simple title be and is here granted to John Brousseau and his Hawaiian heirs, for his dwelling house lot at Hanalei, Kauai. Contains as appears by his survey by G. Metcalf, 1 Acre 138 rods free of all commutation.

A true copy of a Resolution passed this day by the King in Council.

Charles Gordon Hopkins, Sec.
27 Sept. 1849

[Award 52; R.P. 172; Opukahi Hanalei Halelea, 1 ap.;1 Ac 3 roods 18 rods]

A.1 LCA 1027 to John Kellett

Claim Number:	01027
Claimant Name:	Kellett, John
Mokupuni (Island):	Kaua‘i
Moku (District):	Halele‘a
Ahupua‘a (Division):	Hanalei
‘Ili (Section):	Hanalei Iki

No. 1027, Kellet, John
Foreign Register Volume 2, page 133

To the Board of Commisioners &c &c Hanalei, island of Kauai, Nov 15, 1847

Gentlemen:
I herewith lay before you my claim to certain lands in the valley of Hanalei or its vicinity, island of Kauai&brkbar;which are the following, viz.

No. 1 First, a piece of land on the height of the north side of the entrance of the harbour & brkbar;called Kamomailai. There are 5 houses on it, some are enclosed, and the whole belong to me.

In connection with the above is a piece of about an acre in extent, in which are six kalo patches made by myself. It is near the first allotment where I reside.

No. 2 Second, a piece of land called Kuakea abreast of C. Titcombe's, containing according to Mr. Metcalf's survey 8 acres 144 rods. This land is entirely fenced; it has been ploughed & harrowed by me. I cultivated with potatoes, corn, beans &c, &c at considerable expense; it is occasionally subject to inundation and has no supply of water in dry weather. There is about two acres of kalo land attached.

All these lands were given to me at the same time by Kaikioewa in 1836 without any consideration except that of friendship. I have no writings for the same, but have held undisturbed possession of them from 1836 to the present time. The whole of these lands are admitted to be mine by the resident natives of the islands, in confirmation of which right being derived from the Chief and Governor before named, I enclose the testimony of Richard Charlton, Esq., who formerly resided at the island.
Extract from this letter: "I spoke to the Governor when I was at Wymea, and he says that he will not only consent to the arrangement, but that the land shall be yours and your children's (if you ever have any) forever" and

(Signed R. CHARLTON, & addressed to Mr. John Kellett)

Submitting my claims as above represented to your adjudication, I remain sincerely &c, &c.

JOHN KELLETT

No. 2. Second Land (a piece of about 8 acres called Kuakea with about 2 acres of kalo land in addition).

Foreign Testimony Volume 2, page 76
Claim 1027, John Kellett, Kauai, 26 November

2 Lands:

1. Pakai, sworn: I know this place. Kamomailai was the old name of it. The present one is Lanihula. It is fenced with stick in part. There were 4 houses on it when I was last there. There is a kalo piece attached below. This is fenced and ditched. (Mr. Kellett stated the stream to be on the boundary on the north, the river on the south, the sea west and the inland range east. There are native families upon it). Testimony continued. There are 3 or 4 native houses belonging to natives living on the land. I think Claimant has lived 12 years on this land and has been in undisturbed possession from that time. I have always heard that Kaikioewa gave it to him.

Hoopau, sworn: I know this place, and that the testimony just given is true. The river is on one side, a stream on the other, the sea and land called Hana Haalileo are the other two extreme bounds. Claimant has 4 houses on it and 4 belonging to natives who live under him, among whom are 7 men. Claimant has had undisturbed possession from the first occupation of it.

Same witness: I know this land. It is in the valley by Hanalei River. Two sides are fenced; the others have natural boundaries. There were two houses on it but they have been blown down. It is cultivated with beans, corn, &c. There are some kalo patches on one side of it. Claimant has owned this piece about the same time as the other, 11 or 12 years. Claimant received it from Kaikeoewa. Mauka of it is the wild lands of Puupaua, belonging to Ku. On Waiole side is the river and on the other side is the pali.

No. 1027, John Kellett, Honolulu, Oahu, Nov. 24, 1847
Native Testimony Volume 2, page 393

1. Kaakahi sworn by the Word of God and stated, This land is at Hanalei on Kaua‘i. Three lands are there. They have been enclosed with a fence and he has lived there for eleven years; Kamoomaikai is the land. One (land) is at Kuakea and the other is at Hanaleiiki.
2. This land is at Hanalei Iki on Kauai. Two taro mo‘o lands are there and a house for everybody else under John Kellet. He has lived there for twelve years and his interest had been from Kaikioewa. No one has ever objected to him to this day.

Hoopau sworn by the Word of God and stated, I have seen John Kellet's property in Hanalei on Kaua‘i which has a house site and some mo‘o lands. The boundaries are the same as Paakahi has just stated here at Ha‘ena is the Hanalei River; makai, the beach; at Kalihi, a small stream

and mauka is the pasture of Haalilio's property. There are eight houses on John Kellet's place, four of which are for him. Kaikioewa had given him this interest and he had lived there for twelve years; no one has objected to his house site.

3. &brkbar; Another land is at Kuakea in Hanalei close to Hanalei River. Two sides have been enclosed and the other sides are covered with the hau (tree). A house was there long ago but it has fallen down. The land had been used for planting beans and corn while he had been a resident there for twelve years and like those other lands Kaikioewa had given him this land at Kalihi where there is a cattle raising land, mauka is the Hanalei River, makai is pasture and he [it?] is in Ha‘ena.

[Award 1027; Hanalei Halelea; 1 ‘āp.l 1 Ac 6 rods]

A.2 LCA 4081 to Kalawakea

Claim Number:	04081
Claimant Name:	Kalawakea
Alternate Name:	Kalowakea/Koloakea
Mokupuni (Island):	Kaua‘i
Moku (District):	Halele‘a
Ahupua‘a (Division):	Hanalei
‘Ili (Section):	Hanaleiiki
Royal Patent:	4882

No. 4081, Koloakea
Native Register Volume 9, page 98

Greetings to the Land Commissioners: I hereby state my claim for land on the island of Kaua‘i at Hanalei. It is 45 fathoms on the north, 45 fathoms on the south, 22 fathoms on the east and 22 fathoms on the west. I have enclosed it with a fence and I have some houses which I occupy there. The period of occupancy has been from 1837 until 1848, in this month of January. This is for you, the Commissioners at Hale Kauwila, to award.
I am, respectfully,
KOLOAKEA

No. 4081, Kalawakea, Claimant
Foreign Testimony Volume 12, page 50

Paaiki, sworn, says I know the claim of Kalawakea. It consists of a house lot in “Kaluakawaha” ili of Hanaleiiki - Hanalei.

Bounded as follows:
Mauka by Hanalei River
Napali by Paaiki’s house lot [Paiki]
Makai by pali of Mr. Kellett
Koolau by pali of Mr. Kellett.

This house lot has been held by Claimant since his parents from the days of Kamuali‘i in undisturbed possession up to this time.

Puupoa, sworn, says I know said house lot and all that Paaiki has testified is true.

No. 4081, Kalowakea
Native Testimony Volume 12, page 54

Paaiki, sworn, he has seen claimant's house lot in Kaluawaha, Hanalei in one parcel.

Section 1
Mauka by Hanalei river
Napali by Puupoa
Makai by John Kellet’s land
Koolau by Kalawakea’s land

Section 2
Mauka by Paaiki taro moo
Napali by Kalakala occupies Kolowahea’s land
Makai by Kaupulehu, a land
Koolau by Kaupulehu, a land.

Taro land from Ihu who was Konohiki of Hanalei in 1839. House lot received during the time of Kaumualii, Paaiki’s parent had probably received it before this time in 1834. No objections to Paaiki.

Puupoa, sworn, verifies Kalowakea’s testimony.

[Award 4081; R.P. 4882; Hanaleiiki Hanalei Halelea; 1 ‘āp.; 1 rood]

A.3 LCA 4083 to Kealaiki

Claim Number:	04083
Claimant Name:	Kealaiki, E.
Mokupuni (Island):	Kaua‘i
Moku (District):	Halele‘a
Ahupua‘a (Division):	Hanalei
‘Ili (Section):	Kaluaalo, Kaunuopua, Kaohia
Royal Patent:	7008

No. 4083, E. Kealaiki
Native Register Volume 9, page 98

Greetings to the Land Commissioners: I, a man of the island of Kaua‘i, hereby state my claim for land. It is on the west of Namauu's land, on the east of the sand /beach/ of Mahamoku, on the north of Hawaiiloa, and on the south is the muliwai of Waiaula.

It measures 3 chains on the north, also 3 chains on the south, 2 chains on the east, 2 chains on the west. That is my claim for land, for you to award. /It has been held(?)/ from 1838 until this day. I am, respectfully, your very humble servant.
E. KEALAIKI

The English words written by Ioane concerning this claim have not been written.
S.P. IASONA,
Secretary.

No. 4083, Kealaiki, Claimant
Foreign Testimony Volume 12, page 149
No. 9137

O. Namaau, sworn, says I know the lands of Kealaiki in Hanalei as follows:

No. 1 is house lot in “Kaluaalo.”
No. 2 is house lot in “Kaunuopua.”
No. 3 is 5 lois in moo “Kaohia.”

No. 1 is bounded:
Mauka by Namaau's house lot
Napali by Konohiki’s kula
Makai by Konohiki’s kula

Koolau by Waiaula Brook.

No. 2 is bounded:
Mauka by Hanalei River
Napali by Hanalei River
Makai by Kellitt's kula
Koolau by Puupoa's house lot.

No. 3 is bounded:
Mauka by Konohiki’s kula
Napali by Kuapukia’s lois
Makai by Kuapuka’s kula
Koolau by Nohiaulu’s lois.

No. 1 was given by the Konohiki in 1839. No. 2 was given by Kahana, the father of Claimant's wife to her as heir & is now held by her husband. No. 3 was given by the Konohiki in the days of Ka‘ahumanu.

These lands have all been held in undisputed possession till this time. No one has ever disputed the possession.

Puhipuhi, sworn, says I know the lands of Kealaiki in Hanalei. I have heard the testimony of O. Namauu. It is all true.

No. 4083 and 9137, Kealaiki
Native Testimony Volume 12, page 157

Namauu, sworn, I have seen this land of Kealaiki in Hanalei of several sections.

Section 1 - Kalualo.
Section 2 – Kaumuohua’s house.
Section 3 - 5 lois in Kaohia moo.

Section 1
Mauka by Namui’s house lot
Napali and Makai by Konohiki pasture
Koolau by Waiaula river.

Section 2
Mauka by Mahanalii river
Napali Mouth of Mahanalii river
Makai by Keoni’s (foreigner) pasture
Koolau by Puupaoa's pa.

Section 3

Mauka by Konohiki pasture
Napali by Kuapuk’'s loi
Makai by kuakua (foreigner) pasture
Koolau by Nohieulu’s land.

Section 1 received from the Konohiki in 1839.

Section 2 - received from the Abrahama the Kahuna, the father of the wife.

Section 3 given by the Konohiki at the time of Kaahumanu, title secure.

Puhipuhi, sworn, he has seen Kealaiki's land at Hanalei, verifies Namauu's testimony.

[Award 4083; R.P. 7008; Kaohia Hanalei Halelea; 2 ‘āp.; 1 Ac. 2 roods 38 rods; Kaunopua Hanalei Halelea; 1 ‘āp.; 37 rods; see also 9137 not awarded]

A.4 LCA 9078

Claim Number:	09078
Claimant Name:	Kalakala
Mokupuni (Island):	Kaua‘i
Moku (District):	Halele‘a
Ahupua‘a (Division):	Hanalei
‘Ili (Section):	Hanaleiiki
Royal Patent:	2919

No. 9078, Kalakala
Native Register Volume 9, page 407

Here are the names; Hanalei, Waihi, Kaluakanaka. Be it known to you, the Land Commissioners, that the diagram above shows the dimensions of my land claim which is stated to you, for you to award. The right of occupancy was from the time of Kaumuali‘i until the present. my claim is at Hanalei, kindly consider its validity.
I am, respectfully, your “little brother.”

[Award 9078; R.P. 2919; Hanaleiiki Hanalei Halelea; 4 ‘āp.; 2 Acs 37 rodsR.P. 2919; No Foreign Testimony or Native Testimony yet located; See also award 4073]

A.5 LCA 10648 to Paaiki (refers to LCA 3816)

Claim Number:	10648
Claimant Name:	Paaiki
Mokupuni (Island):	Kaua‘i
Moku (District):	Halele‘a
Ahupua‘a (Division):	Hanalei

No. 10648, Paaiki
Native Register Volume 9, page 306

To the Commission to Quiet Land Titles at Hale Kauwila, Greetings: here are the dimensions of the taro lo‘i for you, the Land Commissioenrs to consider, you who verify the claims of the people. It is situated as follows: On the east side, 88 fathoms, on the south side 16 2/6 fathoms, on the west side 88 fathoms, on the north side, 35 fathoms. The name is Hanaleiiki.

You must not think I am competent - no, I am ignorant. It is for you, the persons who are accomplished, whom the Mo'i has appointed, to think of this. I am, respectfully, your humble servant.
PAAIKI Hanalei, Kauai
January 22, 1848

[No. 10648 not awarded; See Award 3816 for documents]

Claim Number:	03816
Claimant Name:	Paaiki
Mokupuni (Island):	Kaua‘i
Moku (District):	Halele‘a
Ahupua‘a (Division):	Hanalei
‘Ili (Section):	Kaumuopua, Hanaleiiki
Royal Patent:	3035

No. 3816, Paaiki, Hanalei, Kauai, January 7, 1848
Native Register Volume 9, page 90

To the Commission to Quiet land Titles at Hale Kauwila, greetings: I, a man of the island of Kauai, hereby state my claim for land /which is from/ the time of Kaumuali‘i until this day

when it is stated to you, the Commissioners to quiet land titles whom the Mo‘i has appointed to confirm the titles. The Makuas lived at this place from ancient times and it has been held until myself, an old man at this time, and I have lived here perhaps forty years or more. Therefore I firmly believe I have the right, to pass on to my son, if you will award it.

This claim is at Kaumuopua in Hanalei and is situated as follows:

18 fathoms on the east side, 36 3/6 fathoms on the south side, 17 fathoms on the west side, 3 3/6 fathoms on the north side. On the north is the muliwai of Hanalei, on the east is the lot of Puupoa, on the south is the ridge of Puupoa, on the west is the lot of Koloakea.
Here are the names of the witnesses: Kanealii, Keaona, Kuapuka, Kumi, Kapaona, Kanakaole.
I am, respectfully, your humble servant,
PAAIKI

No. 10648, Paaiki, Claimant
Foreign Testimony Volume 12, page 49
No. 3816

Kalauakea, sworn, says I know Paaiki's lands in Hanalei as follows:

No. 1 is house lot in “Kaumaopua.”
No. 2 is 2 moo of Kalo called “Paele” & “Nohu.”

No. 1 is bounded:
Mauka by Hanalei River
Napali by Puupoa’s house lot
Makai by Mr. Kellitt’s high land
Koolau by Kalauakea’s house lot.

No. 2 is bounded:
Mauka by moo kalo called “Paauki”
Napali by Kalakala’s loi
Makai by pali of “Kaupulehu”
Koolau by pali of “Kaupulehu.”

The house lot No. 1 has been held by claimant. in undisputed possession since 1834 & by his Parents since the days of Kaumualii.

The kalo land was given by the Konohiki about the year 1839. The claim has never been disputed.

Puupoa, sworn, says I know the lands of Claimant & can testify that all that Kalauakea has said is true.

Native Testimony Volume 12, page 53
No. 10648 and 3816, Paaiki

Kalowakea, sworn, he has seen Paaiki’s lands.

Section 1 - Kaumuopua, a house lot.
Section 2 - Two taro moos named Paeli and Nihu in Hanaleiiki.

Section 1:
Mauka by Hanalei river
Napali by Puupoa
Makai by John Kellet’s land
Koolau by Kalowakea’s land.

Section 2:
Mauka by Paaiki taro moo
Napali by Kalakala occupies Kolowahea’s land
Makai by Kaupulehu, a land
Koolau by Kaupulehu, a land.

Taro land from Ihu who was Konohiki of Hanalei in 1839. House lot received during the time of Kaumualii, Paaiki’s parent had probably received it before this time in 1834. No objections to Paaiki.

Puupoa, sworn, verifies Kolowakea’s testimony.

[Award 3816; R.P. 3035; Paele 1 Hanalei Halelea; 1 ‘āp. 1 Ac 2 roods 11 rods; Kaunuopua Hanalei Halelea; 1 ap. 2 roods 4 rods; See also 10648 not awarded]

Appendix B Osteological Field Investigation of Human Skeletal Remains

HANALEI 18 (Black Pot)

Malina Lia Reveal, MS.c.

19 February 2015 Osteological Field Investigation of Human Skeletal Remains Located in Backdirt sediment associated with BackHoe Trench 2 (BHT2).

An adult left distal tibia fragment was previously identified during the Archaeological Inventory Survey (AIS) portion of the field work for HANALEI 18 within the backdirt pile associated with BackHoe Trench 2 (BHT2).

The tibia fragment exhibited old factures indicating the element was broken before the excavation for the current project was conducted. The fracture margins on the bone are well-worn indicating the bone element had been previously disturbed and moved around within a sediment environment before being discovered in the backdirt pile associated with BHT3 during the current AIS project. No other human skeletal remains were identified. The tibia element was not in primary context. The exact provenience of the bone element is not known.

The human skeletal remains were analyzed by a Forensic and Biological Anthropologist who has extensive experience working with human skeletal remains in a forensic and archaeological context in Hawai‘i, California and in Europe. The human skeletal remains are older than 50 years old and are not the jurisdiction of the coroner. The human skeletal remains are not a forensic case.

The remains are likely Native Hawaiian ethnicity based on archaeological sediment evidence and geographical location. A dark gray sandy loam A horizon sediment was adhering to the tibia fragment. Native Hawaiian burials are known to have been discovered and identified in primary context (in situ) within dark gray sandy loam A horizon sediments. Not all Native Hawaiian burials are interred in clean Jaucus sand.

The land surface was modified in 1988 to make a parking lot for the adjacent boat tour company (mauka of the project area). A clear gravel layer was identified in the BHT2 sediment profile; providing evidence that the area had been previously graded to make the parking lot. The grading activities likely removed several feet of sediment and it is likely that the A horizon was thicker prior to the grading activities.

Sediment disturbance associated with flooding of Hanalei Bay and adjacent streams was also documented during the AIS project.

Sus scrofa (pig) crainal fragments and a piece of chert were also identified within the interface of Stratum III and Stratum IV of BHT2.

Appendix F

Cultural Impact Assessment

Cultural Impact Assessment at the ʻIli of Opukahi for Black Pot Beach Park

Ahupuaʻa of Hanalei, Moku of Haleleʻa
TMK: (4) 5-5-001:004
FINAL



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This report was prepared by Nohopapa Hawaiʻi, LLC, for Group70

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Introduction

On behalf of Group70 and the County of Kauaʻi, Department of Parks and Recreation, Nohopapa Hawaiʻi, LLC, is completing a Cultural Impact Assessment (CIA) to inform an Environmental Assessment (EA). The EA is for the project planning and design for the County of Kauaʻi's Black Pot Beach Park Improvements Project, Hanalei Ahupuaʻa, Haleleʻa Moku, Kauaʻi, TMK: (4) 5-5-001:004.

Leo Mahalo

Mahalo nui to the generational families of Haleleʻa and Hanalei who continue to fish, gather, paddle, kilo, sail, swim, gather, and steward the Hanalei muliwai. Mahalo to the younger generations who keep these traditions alive and bring their children back to Black Pot. Mahalo to all those who participated and those who werenʻt able to but wanted to. Our hope is that County Parks will continue to talk story with you all and implement some of the recommendations shared in this study.

Mahalo to Group 70 for your patience and the Aunties at Kauaʻi Historical Society, you are so very appreciated. Mahalo to the County Parks staff for taking the time to read this.

Project Description

The County of Kauaʻi (County) is the project proponent and the landowner of the beach park. Proposed improvements to Black Pot Beach Park include the installation of two (2) new comfort stations, two (2) conjoined pavilions raised or mounded for flood protection, one (1) county storage facility a future canoe storage facility, a new shower structure near the mauka comfort station, expansion of formalized parking lots, and maintenance of existing boat ramps, reinterment site, park areas, etc. (Figure 5). The project includes the removal of an existing canoe storage facility as well as the installation of lighting, fencing, gates, tables and furniture, smaller pavilions for picnic tables and public signage, landscaping, and parking barriers. At present an indeterminate, but significant amount of ground disturbance is anticipated.

Purpose

This study assesses the potential impacts (positive and/or negative) of the proposed improvements and expansion of Black Pot Beach Park as they relate to cultural resources, defined as cultural practices, places, features, and resources, within Black Pot Beach Park.

Regulatory Context

The CIA study and Legal Analysis are triggered by requirements set forth in the Hawaiʻi Environmental Policy Act (HEPA), Hawaiʻi Revised Statutes (HRS) §343, the corresponding Hawaiʻi Administrative Rules (HAR) §11-200.1, and the Environmental Council's 1997 Guidelines for Assessing Cultural Impacts.

The project involves a County Special Management Area Permit (SMA) and possible Conservation District Use Permit (CDUP) for review by the Board of Land and Natural Resources. The CIA is triggered by the County undertaking, SMA Permit, and potential CDUP Permit, under Hawai'i Revised Statutes (HRS) §343 environmental compliance review; as such the CIA will be a component of an Environmental Assessment (EA) that will go out for public comment.

Initial CIA consultation will continue and be expanded in a concurrent Ka Paʻakai Analysis report that Nohopapa Hawaiʻi is also undertaking, at the request of Group 70, on behalf of the County.

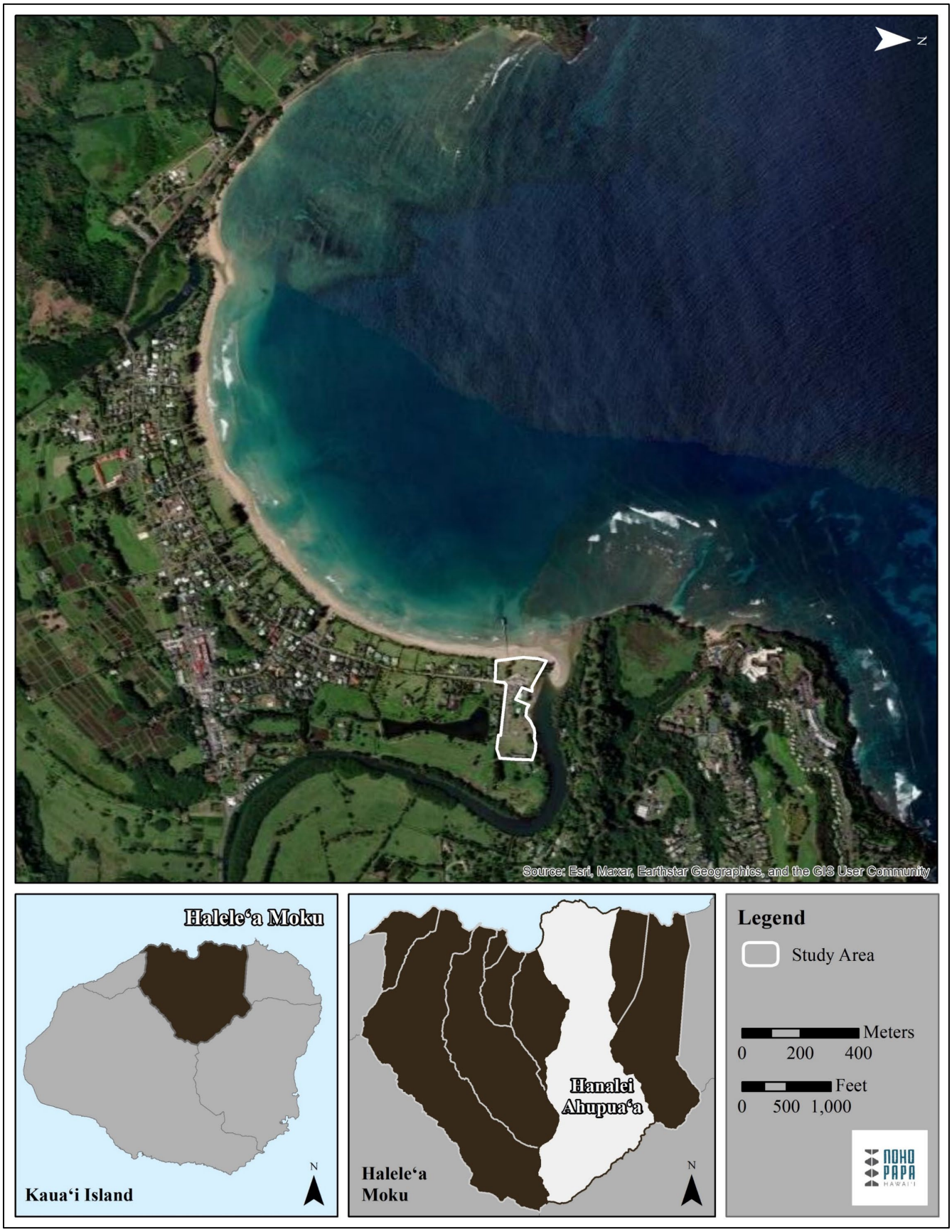


Figure 1. ESRI World Imagery map depicting the project area. Note the Hanalei River muliwai is at the east end of the Bay, 1:15,000.

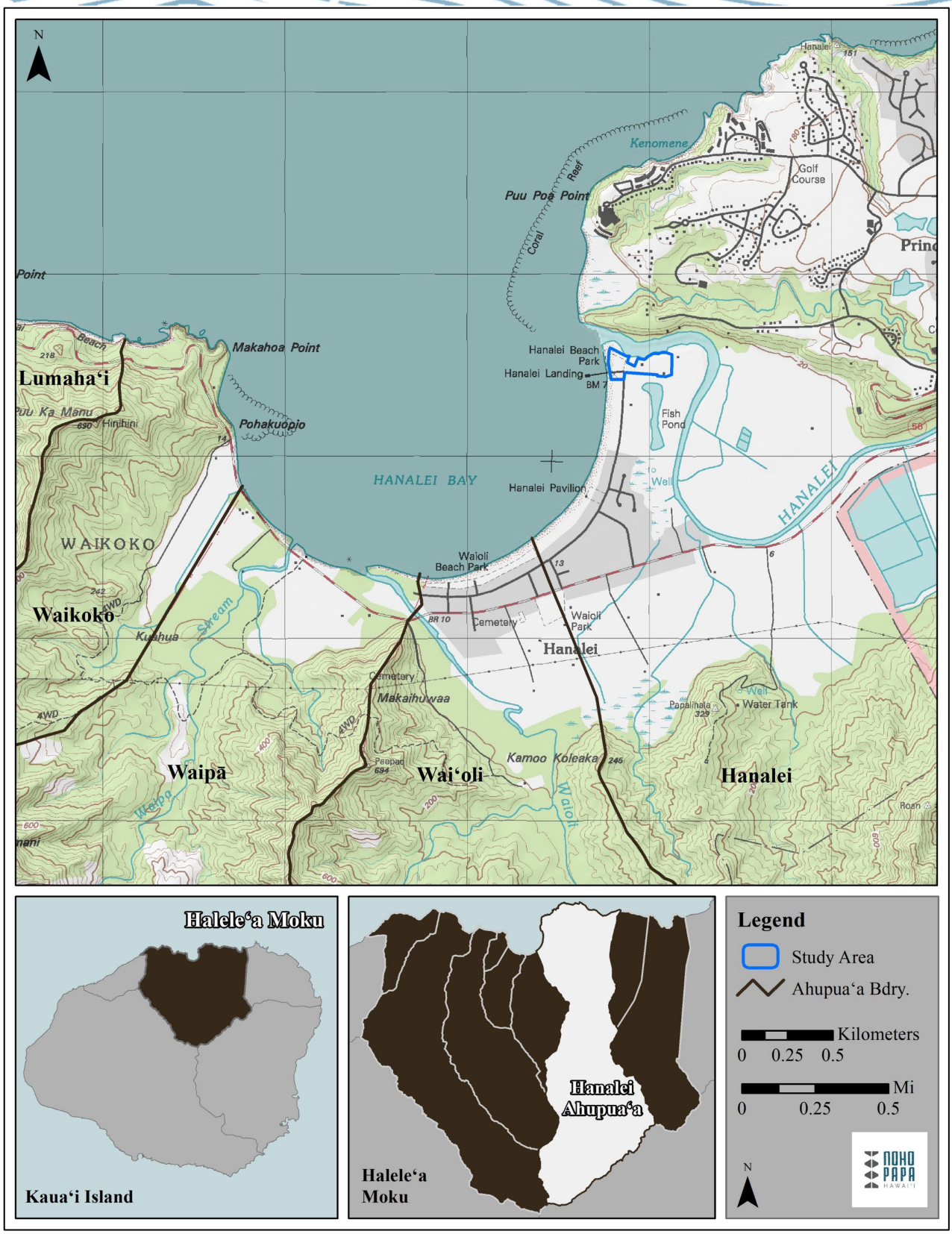
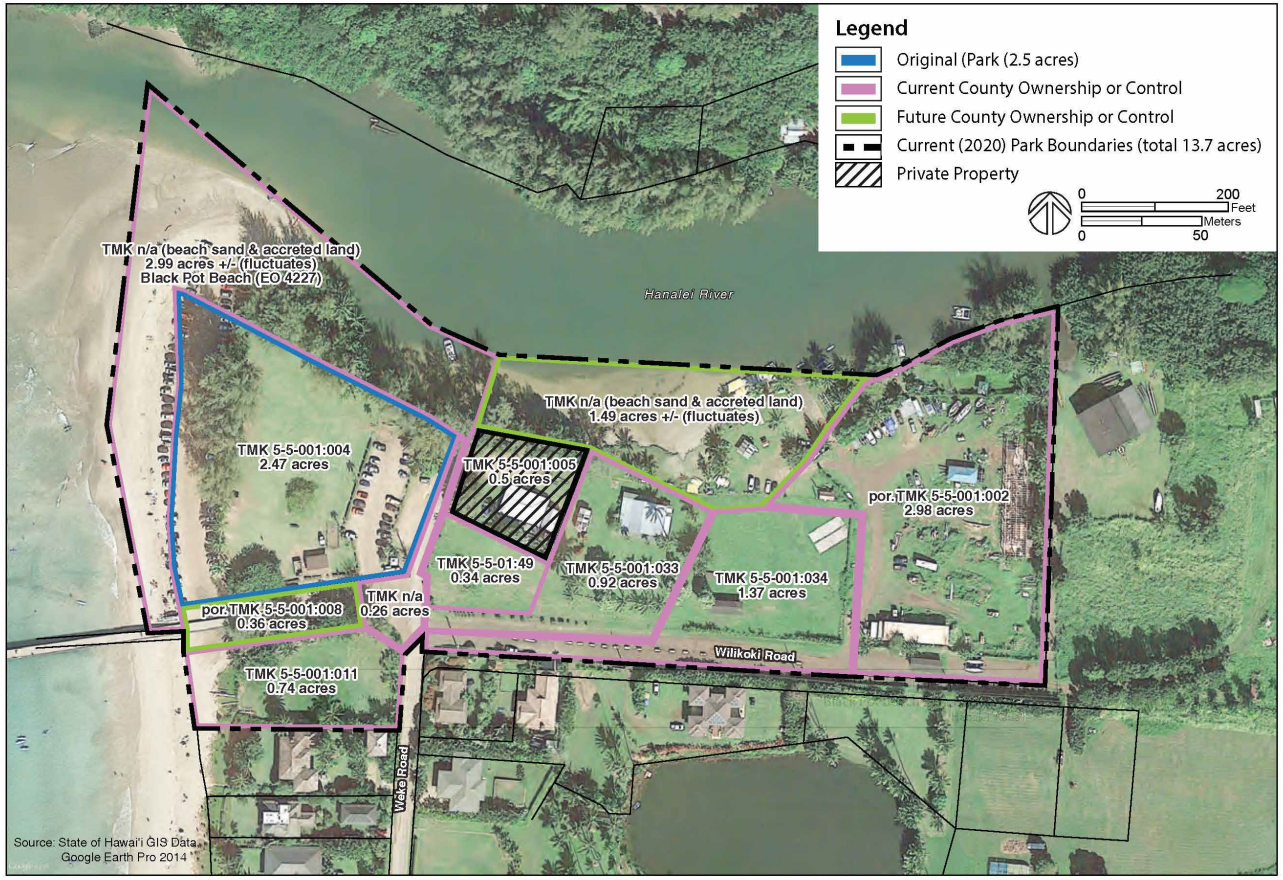


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Figure 3. Close up imagery depicting the study area in blue outline.



May 2021

23

Figure 5 - TMK Parcel Boundaries
Black Pot Beach Park Master Plan
Hanalei, Kaua'i

Figure 4. Excerpted from the 2021 Master Plan for Black Pot Beach Park (p23, Figure 5) showing study area, excepting cross hatched parcel, which remains private property.



Figure 5. Conceptual master plan of proposed expansion and improvements for Black Pot Beach Park, from *Master Plan for Black Pot Beach Park* (2020:p64, Figure 12).

Methods

Nohopapa conducted research and outreach to identify 'valued cultural, historical, or natural resources' to better understand if impact to traditional customary Native Hawaiian practices and rights at Black Pot Beach Park would result from the proposed park improvements and expansion.

While conducting this work, Nohopapa's research team incorporated a set of living values and beliefs to help guide our research, analysis, behavior, perspective, and overall frame of reference. These values represent the underlying foundation, spirit, and structure for this study:

- ***Aloha ʻĀina****- to have a deep and cherished love for the land which created and sustains us*
- ***Haʻahaʻa****- to be humble, modest, unassuming, unobtrusive, and maintain humility*
- ***Hoʻomau****- to recognize, appreciate, and encourage the preservation, perpetuation, and continuity of our wahi pana and kaiāulu*
- ***ʻImi Naʻauao****- to seek knowledge or education; be ambitious to learn*
- ***Kuleana****- to view our work as both a privilege and responsibility*

Ethnohistorical Research

Ethnohistorical information lays the foundation for understanding a place's natural, cultural, and historical background. To provide a more comprehensive understanding of the project areas, Nohopapa researched cultural and historical sources for Hanalei, with a specific focus on Hanalei muliwai, its coastal fringing plain, the river and bay, as well as the activities that connect the river to the Napali coast and the wider moana. We looked broadly with an eye to identifying themes of practice, including but not limited to: lawaiʻa, waʻa (sailing, racing, travel, fishing), iwi kūpuna, surfing, ʻohana connections, connectivity to Nāpali, generational ʻohana, ocena traditions.

Using these themes of practice we searched ua (rain) names, moʻolelo (stories), ʻōlelo noʻeau (proverbs), and historical land use documents. Inoa ʻāina, moʻolelo, and ʻōlelo noʻeau were compiled from Hawaiian language and English sources in books, nūpepa, personal & online databases and archives. Historical land use accounts were derived from land documents, such as Boundary Commission Certificates and Testimonies, the Buke Mahele and Awards Books (Native & Foreign Testimonies and Registers), Government Land Grants, Crown lands, Government Surveys, and the Bureau of Conveyance records.

Ethnography Methods

With the goal of identifying and understanding the importance of, and potential impacts to, Native Hawaiian cultural practices, beliefs, and places, ethnographic outreach was conducted with community members who are knowledgeable about the project area with genealogical ties and/or who actively practice. In Hanalei, many kūpuna and kamaʻāina have maintained close connections to place based traditions even as more and more generational families no longer live there. This maintaining of their stories and practices in place; maintains the integrity of this Native Hawaiian cultural landscape, the storied Hanalei Bay. Ethnographic research for this report involved documenting oral histories by conducting interviews, talk stories and survey sessions with community members to record and acknowledge peoples' cultural and historical connections to the Hanalei Bay, Hanalei Ahupuaʻa, and particularly Hanalei Muliwai and the area of Black Pot.

Identification of Interest Areas

Scoping for this project began with the compilation of background research which was used to develop themes. The Nohopapa team identified six general themes that a range of Native Hawaiian traditional customary practices specific to the study area fell under. The goal was to have community represenation in this study under each theme:

1. Sailing and Racing Waʻa
2. Lawaiʻa and ʻOhana with Black Pot coast and muliwai connections
3. Connectivity: Na Pali Coast Access and Practitioners
4. Mālama Iwi Kūpuna
5. Generational Residents
6. Surfing and other Ocean Traditions
7. Wahi Kūpuna Stewardship

Individuals' Connections to the Hanalei Muliwai and Black Pot

The team then began contacting knowledgeable individuals recognized as having genealogical, cultural, and/or historical connections to the project ahupuaʻa and/or were active practitioners in the area. A community contact list was developed using the following criteria: 1) were referred to Nohopapa Hawaiʻi; 2) possessed genealogical ties to the project area or vicinity; and/or 3) were considered Native Hawaiian cultural practitioners.

Project staff contacted fifteen (15) individuals regarding this CIA. Of the fifteen, six (6) individuals had both the time and willingness to formally participate in consultation within the project timeframe. We spoke with five other individuals, but were unable to formally meet up with them for an interview or talk story.

All of the individuals interviewed acquired their knowledge about Blackpot and the Hanalei River Muliwai through personal experience or observations and from older family and community members who shared with them personal, historical, and/or genealogical information. The following section includes background information for community members our team reached out to as well as their level of engagement.

These five individuals were contacted and spoke with us, but were *unable* to participate in a formal talk story or interview within the project window. They all have extensive knowledge and relationships with the Black Pot area and valuable recommendations to share:

- Wayne "Palala" Harada: member of the Kauaʻi Island Burial Council (KIBC), generational Haleleʻa family, hula and hana noeau practitioner, and kumu at Kanuikapono
- Maluhia Kinimaka: generational Haleleʻa family, surfer and accomplisehd waterwoman
- Hanohano Hermasura: generational Haleleʻa family, lawaiʻa
- Diana Spencer: generational Haleleʻa family, kalo farmer and longtime Hanalei resident

- Kapua Chandler: generational Haleleʻa family, generational Hanalei Hawaiian Civic and Hanalei Canoe Club family, Community Educator, Namahana School leader

The following shared thoughts with us but not impacts

- Aunty Lahela Correa: generational Haleleʻa family, generational Hanalei Hawaiian Civic and Hanalei Canoe Club family.

These five people engaged in formal Consultation:

- Jessica Kaui Fu: current President of the Hanalei Hawaiian Civic, Coach and paddler with Hanalei Canoe Club, Generational Haleleʻa family, active with sailing and racing waʻa in Hanalei Bay. Her father, Jumbo Fu, worked Princeville Ranch, a lawaiʻa who participated in hukilau and waterman along the Na Pali coast, he was also a constant at Black Pot Beach Park before he passed.
- William "Billy" Kinney Jr.: generational Hanalei family. Family was part of the Hanalei Hui Hoolimalima Aina Lei Alii, Assistant Director of the Hui Makaʻāināna o Makana in Hāʻena, current and generational Hanalei resident.
- Arthur "Atta" Forrest: generational Haleleʻa family, generational Hanalei Hawaiian Civic and Hanalei Canoe Club family, lawaiʻa and firefighter
- Devin Kamealoha Forrest: generational Haleleʻa family, generational Hanalei Hawaiian Civic and Hanalei Canoe Club family, a kumu hula and hālau active in the Hanalei Bay, steward of Ahu a Laka, practicing lawyer for the Native Hawaiian Legal Corporation, and s member of the Waiʻoli Valley Taro Hui.
- Randall Osakoda: long time generational Hanalei family and resident. Surfer, fisherman, their family land is just across and upriver of the study area, where the family raised cattle and horses.

Because more than a few practitioners shared their manaʻo with us without a formalized sit-down consultation, and because Nohopapa values the protection of their intellectual property, Nohopapa Hawaiʻi has not included the manaʻo of practitioners who have not provided written or verbal formal consent, and has chosen to anonymize *all* participants.

Voices of kūpuna who have passed

Interviews with kūpuna who have passed are cited in the sections below, as they echo the sentiments of the current generation, many of whom are their relations. It is important to note here that past interviews are only used in this study to establish and support the existence of resources and cultural practices in the study area. Two studies in particular, with community interviews are cited in this section: The Hanalei Project and "Hana Ka Lima," a 2003 study by Kepā and Onaona Maly.

The Hanalei Project contains a collection of records from surveys and interviews conducted from 1985-1995 by project coordinators Beryl Blaich, Barbara Robeson, Carol Wilcox, and Karol Haraguchi; the project records are on file at the Kauaʻi Historic Society (KHS) at the County building in Līhuʻe. The Hanalei Project was conducted by the 1000 Friends of Kauaʻi. Its purpose was,

> ...to record and understand various landscape resources of Hanalei, with an eventual goal of preparing a nomination for these significant cultural landscapes to the National Register of Historic Sites. Project members reviewed existing studies of the valley bottom area, identified rural landscape components, and inventoried cultural resources to locate information about land use categories, structures, circulation networks, and small-scale elements.

-Kauaʻi Historical Society Finding Aid for the Hanalei Project (KHS-Ms6:p4).

The Hanalei Project included the current study area, extending up Hanalei River into the valley to the homesteads and across the Bay into Hanalei Town.

The second archival source of Hanalei kūpuna interviews incorporated to identify traditional customary practices are interviewees from the *Hana ka Lima, ʻAi ka Waha*. Kepā Maly and Onaona Maly, the authors of the 2003 report have requested that,

> "all who read these interviews please respect interviewees. Please reference the oral history narratives in their context as spoken—not selectively so as to make a point that was not the interviewee's intention."

Nohopapa acknowledges this request and we have respected it as we pull out discussions that might be important to this current Blackpot study. We would also like to note that while we can refer to past interviews and consultation to identify resources and practices in a place and better understand the relationship of kupaʻāina to place, it is ***not*** legal or ethical to *recycle* consultation from past interviews. Nohopapa is very aware that this has actively occurred during compliance across Hawaiʻi. Our intent in referencing information shared in past interviews with kūpaʻāina is to honor those stories and to relieve the community of the constant burden of identifying and re-identifying traditional cultural practices and traditions present in places when they have often already shared, or their kūpuna have shared *many* times over with others. So, we call upon past kūpuna interviews to help identify practices and resources and, as relevant, to support identified impacts and mitigations offered by those participating in the current consultation.

As the Malyʻs have set the ethical and respectful path for us to follow, we re-share their humble words here, "E ʻoluʻolu ʻoukou e nā mea e heluhelu ai i kēia mau moʻolelo ʻohana — e hana pono, a e mau ke aloha!"



Figure 6. A circa 1890 historical photograph showing the mouth of the Hanalei River and a portion of the makai lands in the current study area (Hawai‘i State Archives PPWD-10-6-003).

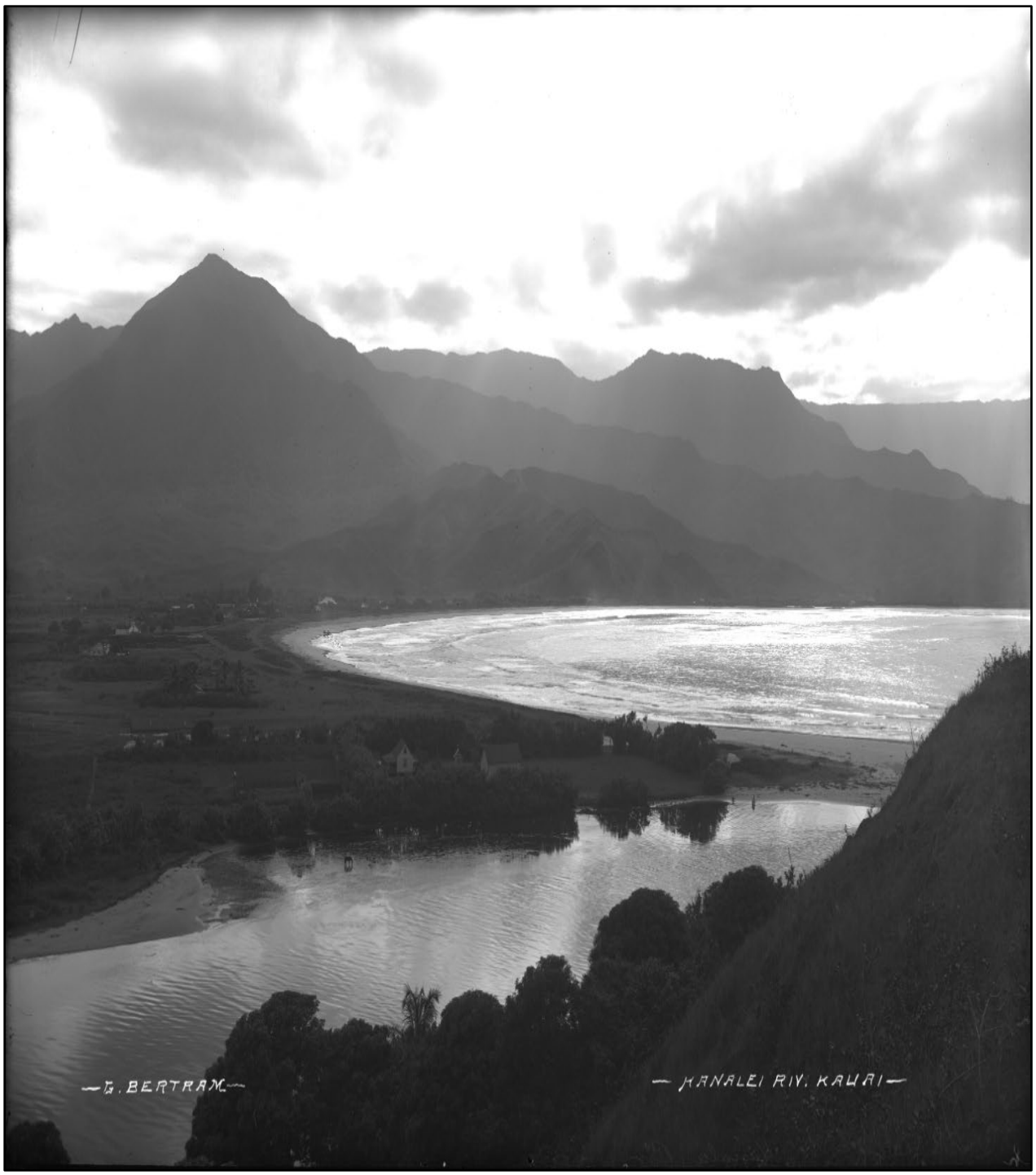


Figure 7. A historical photograph from 1897 shows the mouth of the Hanalei River outletting into the sea, and in the middle ground, the makai lands of the study area (Brother Bertram 1897).

Moʻolelo, Kaʻao, Mele, Oli - Oral Traditions

This section of the report draws from a variety of oral and documented resources to identify traditional and customary Native Hawaiian practices active in the study area and/or resources present that support such traditions. The burden to identify resources, rights and practices traditional and customary to Native Hawaiians in a limited compliance process, should not be placed on communities and individuals alone. Many kūpuna and community members can be haʻahaʻa or humble about sharing about themselves; and some practices are not for sharing. This research, through the compilation of moʻolelo and kaʻao, ʻōlelo noʻeau, mele, and oli contributes to the ʻike shared with us by consultees. A rich reservoir of stories and traditions, some for sharing and some personal, is presented in a small selection here. What you read is merely a selection from oral traditions that identify some of the valued resources and significant practices associated with Hanalei muliwai, Hanalei Bay, and its surrounding waters.

Hawaiian oral traditions have been passed down by word of mouth from one generation to the next and recorded in more contemporary times. Hawaiian oral traditions can convey a general sense of Kanaka ʻOiwi (Native Hawaiian) history, people's connection to land, best practices, even traditional land tenure, and how they lived.

Hawaiian oral traditions are relayed in the form of mele (songs), ʻōlelo noʻeau (proverbs), pana noʻeau (sayings), moʻolelo (stories), moʻokūauhau (genealogies), mele (song), oli (chant), and accounts in nūpepa (historic newspaper articles) that can contain combinations of all the above. These forms of oral traditions can be woven into each other. For instance, a moʻolelo may present a mele about a moʻokūauhau, or a nūpepa article recounting a kaʻao might have a historical figure offering up an oli upon arriving at a place. Hawaiian oral traditions are vehicles for the intergenerational transmission of knowledge. They serve as a timeless bridge to cultural insights and beliefs that have guided Hawaiians across centuries and generations.

Additionally, resources in an area are often directly identified in mele, moʻolelo, kaʻao, and oli. These resources, alluded to, or even openly lauded, are clear cultural indicators of the practices of the people in that place. Where the resource exists, or has thrived in the past, then that resource and associated traditions, practices and beliefs are likely to thrive or have the potential to thrive today.

Today, through written form and English translations, these cultural traditions persist as sources of ancestral wisdom. Hawaiian oral traditions tell of the resources of the ʻāina (land), lani (skies and heavens), akua (gods), kupua (supernatural deities), ʻaumākua (familial guardians), aliʻi (chiefs), and ka poʻe kānaka (the Hawaiian people) whose stories weave a unique and treasured history of this ʻāina. Though many more moʻolelo connected to the study areas may likely exist, the selected moʻolelo presented in this section relay specific information regarding features connected to the area and/or cultural practices associated with the place.

Hawaiian forms of song and poetry expressed through mele and oli are significant elements of Hawaiian culture and identity that skillfully encapsulate a plethora of valuable insight, be it historical, geographical, or personal accounts. Proficient and adept in the skill of oratory, Kānaka ʻŌiwi utilized mele and oli (chants) as another form of oral recordation for significant events, to convey emotions, commemorate people, places, and moments in time that the haku mele (composer) felt inspired to preserve in the form of poetry. Many kaʻao, as discussed above, contain

elements of mele and oli within the moʻoleo (story). Puakea Nogelmeier discusses the craftsmanship of mele in his introduction of *He Lei no ʻEmalani: Chants for Queen Emma Kaleleonālani*, a literary collection of Hawaiian poetic compositions written for Queen Emma. The depth and breadth of the Hawaiian oral tradition of mele is synthesized by Nogelmeier:

> Before Europeans arrived in the Islands, poetry was part of the vast collective repository of oral tradition necessary for social continuity in such a complex oral culture. Poetic form was useful for remembering genealogies and for documenting historical events; combined into histories and legends, this kind of poetry has been recorded throughout the many Pacific cultures. Eventual interior changes in Hawaiian society certainly affected the uses of poetry, fostering its status in the protocols of royal court and religious ceremony and at the same time expanding the practice and appreciation of the art throughout the general population. Whether recited as prayer or invocation, intoned in chant without accompaniment, or presented through dancers as a hula, poetic compositions were called mele. [Nogelmeier 2001:1]

Nogelmeier touches upon the effects of mele as ensuing changes are made to the fabric of Hawaiian society that both fosters the traditions and protocols of mele while also expanding the practice and art of its poetry. The underlying value that remains consistent in the face of change is, as Nogelmeier described, the use of mele as a means to remember genealogies, document historical events, and recount moʻolelo and kaʻao. In this light, the poetry that existed prior to European settlement is likened to a "vast collective repository of oral traditions" (Nogelmeier 2001:1). One of the expansions that mele and other forms of Hawaiian poetry experienced, is due in light to the introduction of the printing press that occurred in the early nineteenth century. When the printing press arrived upon Hawaiʻi's shores, Hawaiians gravitated towards this new form of technology and wielded its ability in a way that elevated the dissemination and acquisition of knowledge and communication (Lum and Lum 2019:x). The printing press ushered an era of documentation, an evolution of oral rhetoric across the pae ʻāina, that could now be conveyed in the form of written literature. The rich knowledge that has been preserved in the oratory of mele, was now made accessible through the written word. Hawaiian musicians, singer-songwriters, scholars, and brothers, Zachary and Nicholas Lum addresses the catalyst of knowledge that was widely spread as a result of acquiring a written language as it relates to mele by acknowledging that, "….a fundamental inheritance we receive from the Hawaiian printed word is an innovation of knowledge transmission and acquisition" (Lum and Lum 2019:x) and that, "in this way, mele is a renowned frontier of innovative knowledge transmission" (Lum and Lum 2019:xi).

The richness of Hawaiian poetry is mirrored in the complexity and beauty of the Hawaiian language. The use of kaona is often embedded in the composition that cleverly conceals multifaceted layers of meaning in the subtle nuances of a single word so thoughtfully placed. The Lum brothers express the breath of kaona utilized in mele:

> Mele, the intersection of Hawaiian language poetry and vocal delivery, can be translated simply as "song," or "the act of singing." However, the multiplicity of meanings facilitated by the Hawaiian language takes mele beyond "song." The inclusion of a specific epithet, or even a single world, can encapsulate and allude to an entire story, enriching the context in which it was utilized in the mele. [Lum and Lum 2019:xi]

In an interview with Puakea Nogelmeier (2001) that documents the life and teachings of renowned kumu hula, Maiki Aiu Lake, Nogelmeier discusses the significance of mele and offers

his understanding of kaona having been a haumāna (student) under the tutelage of Kumu Maiki and other kumu and kūpuna versed in Hawaiian poetics and language. He states that "Kaona is a meaning that is couched within the poetry so that it is not obvious to the listener," (Nogelmeier 2001: Oral Interview). He comments that "Kawena [Pukui] always said that real kaona cannot be understood by anyone except for the poet, and perhaps those intimate with the setting which inspired the poetry," (Nogelmeier 2001: Oral Interview). Nogelmeier's reference to Pukui is detailed in her contribution to *The Journal of American Folklore* where she discusses, in intimate detail, the mele of her birthplace, Kaʻū. In this account she describes kaona as the "spirit" of the poetic composition. Pukui writes:

> There were always two things to consider: the literal meaning and the kaona, or "inner meaning." The inner meaning was sometimes so veiled that only the people whom the chant belonged understood it, and sometimes so obvious that anyone who knew the figurative speech of old Hawaii could see it very plainly. There are but two meanings: the literal and the kaona, or inner meaning. The literal is like the body and the inner meaning is like the spirit of the poem." [Pukui 1949:247]

The "inner meaning" of kaona that Pukui described emphasizes the many levels that exist in mele. In his interview, Nogelmeier remarked that: "The expression of Hawaiian thought–on every level, through poetry was one of the arts that was elevated to the highest level," (Nogelmeier 2001: Oral Interview). Kalena Silva, a distinguished Hawaiian language kumu, chanter, cultural practitioner, and one adeptly versed in mele ascends from the mentorship of kumu Maiki Aiu Lake. Silva was also featured in the series of interviews and discussed the teachings he inherited. Regarding the topic of kaona, Silva asserts that kaona adds power to poetry (Silva 2001: Oral Interview). He states that: "Hawaiian poetry, at its best, is oblique and not too direct," (Silva 2001: Oral Interview). He continues commenting that "it is intellectually challenging–and if it is intellectually challenging in an oblique sort of way, it gains value and mana, or spiritual power," (Silva 2001: Oral Interview). Silva expands on the notion of kaona adding value to the context of the piece it is embedded into by examining the vocabulary of other Polynesian languages. Silva examines the similarities of the Māori word, *taonga*, which refers to a treasure or something that is highly valued, and the Tahitian word *taoʻa* which possesses the same meaning. He links these words back to the Hawaiian word, kaona, and states that, "Hawaiian thinking with regard to kaona assigns a lot of value to the hidden meaning," and in this way he believes that "the other Polyensian languages are supporting this idea that this hidden meaning is very valuable," (Silva 2001: Oral Interview). Reflecting on the Hawaiian sense of value placed upon the weighted meaning of words, Silva shares the ʻōlelo noeʻau, "ʻO ʻoe ka luaahi o kāu mele," and translates it to mean, "*You bear the good and the bad consequences of the poetry you compose,*" (Silva 2001: Oral Interview). This phrase emphasizes the intellectual thought that Hawaiians understood to be true in the use of words that carried dual meanings. What is resounded in this dialogue and the thoughts shared by Silva, is the cultural understanding that there is power in words; and thus, we must value them.



Figure 8. An undated historical photograph potentially from the early to mid-twentieth century, showing the forested study area and makai lands under agricultural cultivation(Kauaʻi Historical Society B-2288-3-15-29-11).

He Mele

As exemplified in this discussion, mele can be understood as a vessel for valuable insight to be shared that is realized masterfully in the art of Hawaiian poetics and composition. This section offers a compilation of mele associated with the study area vicinity of Hanalei. It is important to note that this is not a compilation of every mele that speaks of Hanalei, rather, what is offered is a collection and brief discussion of a handful of mele that have surfaced during the background research of this study. As a result, what is understood in regards to Hanalei is the celebration of its rain and the abundance of freshwater resources of this ahupuaʻa. Resonated throughout this compilation of mele for the Hanalei Ahupuaʻa is the theme of heavy rainfall that is plentiful and gives life to this beloved place.

Hanohano Hanalei

"Hanohano Hanalei" was composed in the 1920s by Alfred Unauna Alohikea–a beloved and favored musician and composer of Hawaiian mele. Alfred was a child of Hawaiʻi having been born in Waipiʻo Valley, however, most of his life was spent in Hanalei, Kauaʻi (Kanoa-Martin 1997). The poetics of this mele, "Hanohano Hanalei," encapsulates the fondness Alfred possessed for the beauty of Hanalei. The notorious heavy rains of Hanalei as well as other prominent natural features associated with this beloved place such as the Manuʻakepa limu (*Nostoc commune* or blue-green alga), the Molokama streams, and Māmalahoa peak are mentioned in this mele and serve to showcase the glory of Hanalei.

"Hanohano Hanalei"
The Glory of Hanalei

Hanohano Hanalei i ka ua nui	***The glory of Hanalei is its heavy rain***
E pakika i kahi limu o Manuʻakepa	*Slippery seaweed of Manuʻakepa*
I laila hoʻi au i ʻike iho ai	*There I felt*
I ka hana huʻi konikoni i ka ʻili	*Tingling cool sensation of the skin*
Aloha kahi one o pua rose	*Greetings, o sand and rose flowers*
I ka hoʻopē ʻia e ka hunakai	*Drenched by sea spray*
ʻAkahi hoʻi au a ʻike i ka nani	*Never have I seen such splendor*
Hanohano Hanalei i ka ua nui	*The glory of Hanalei is its heavy rain*
Kilakila kahi wai nā Molokama	*Majestic streams of Molokama*
I ke kau ʻia mai hoʻi e ka ʻohu	*Mist covered*
He ʻohu hoʻi ʻoe no ka ʻāina	*You are the mist of the land*
A Hanalei a e haʻaheo nei	*That Hanalei cherishes*
Kiloi i ka nani Māmalahoa	*Behold the beauty of Māmalahoa*
I ka hoʻopē ʻia e ke kēhau	*Drenched by the dew*
ʻElua wale iho nō māua	*She and I are two*
ʻEkolu i ka hone a ka ʻehu kai	*Three with the rustle of sea spray*

Elbert and Mahoe 1970:41

Pela kapu o Kakae

In 1980, an article entitled “Nalowale na Mele Punahele” was published in the Hawaiian language newspaper, *Ke Alahou*. The article translated as, *“The Favorite Songs are Forgotten,”* is a published piece about the realization that many cherished songs of Hawai‘i have been lost and forgotten. The author asserts that the loss of these songs is due in part to many of the mele have not been written to preserve its lyrics, nor have they been recorded to retain the melodies. The author references Johnny Noble and Charles E. King as individuals who have published song books in order to preserve Hawaiian mele (Ke Alahou 1980:12). The article stresses the importance of preserving mele and makes a call out to others to rally and begin documenting the songs of Hawai‘i and recording them lest they be forgotten. In closing, the author offers the mele, “Pele kapu o Kakae,” for those to see its lyrics and sing to. According to the article, this mele was composed by the Kawaihau Glee Club (Ke Alahou 1980:12). Relevant to this study, the last verse of the mele speaks of Hanalei. In particular, the line, “E ka ua loku o Hanalei,” describes the characteristics of the rain in Hanalei; that being a downpour of rain. The endemic and treasured mokihana (*Pelea anisata)* tree of Kaua‘i is referenced in the following line, “Kui ia mai na Mokihana,” describing the stringing of mokihana to produce a lei (garland). “Na ka Lupua e lawe mai” and “I wehi i ohu no Kalani,” are lyrics of this verse that remarks on the Lūpua wind of Wainiha that will carry the mokihana lei in adornment. Honoring the same sentiment conveyed in this article which highlighted the importance of sharing mele as a means to preserve and celebrate the songs of old, included below is the mele, “Pele kapu o Kakae”

“Pela kapu o Kakae”
Na ke Kawaihau Glee Club

E ka ua Kanilehu
Kui ia na lehua o Panaewa
Na ka Puulena e lawe mai
I wehi i ohu no Kalani.

Hui:
E ka pela kapu o Kakae
Kui ia mai na pua
Na ke Kilioopu i lawe mai
I wehi i ohu no Kalani

E ka ua Apuakea
Kui i amai na ahihi
Na ka Malanai e lawe mai
I wehi i ohu no Kalani

E ka ua loku o Hanalei
Kui ia mai na Mokihana
Na ka Lupua e lawe mai
I wehi i ohu no Kalani

Ke Alahou 1980:12

Maikaʻi Kauaʻi

"Maikaʻi Kauaʻi" is a mele that was originally a chant composed for ke aliʻi Pauahi's hānai (adopted) child, Keolaokalani (Elbert and Mahoe 1970:75). According to Elbert and Mahoe, it was Kapaʻakea, Kalākau's father who had composed the oli for Keolaokalani, while the chant in its original form is said to have honored Kaumualiʻi, the aliʻi of Kauaʻi (Elbert and Mahoe 1970:75). The chant was later adapted into a mele and Henry Waiaʻu, a celebrated musician and haku mele arranged the music to accompany the song during his time serving as the choir director at the Līhuʻe Hawaiian Church on Kauaʻi (Elbert and Mahoe 1970:75). "Maikaʻi Kauaʻi" can be interpreted as *"Kauaʻi Beauty"* and just as the title entails, the mele captures the unique and celebrated characteristics of Kauaʻi honoring the beauty of this island. Concerning this study of Hanalei, the second paukū or stanza of this mele highlights the Hanalei Ahupuaʻa. Themed throughout this paukū is the imagery of water that is notorious of Hanalei. The mele recalls the "ua nui hōʻeha ʻili"–*the great rain that pains the skin*, the "wai o ʻuʻinakolo"–*the rusting waters*, and the "poli o Namolokama"–*the heart of Namolokama*, a poetic reference to the Namolokama waterfall of Hanalei (Elbert and Mahoe 1970:75). Evident in the composition of this mele, the many forms of freshwater, be it rain, streams, and waterfalls, are all elements of Hanalei that showcases the beauty of this ahupuaʻa and Kauaʻi as a whole. "Maikaʻi Kauaʻi," as it has been adapted in its mele form is provided below:

"Makaʻi Kauaʻi"
Kauaʻi Beauty

Maikaʻi wale nō Kauaʻi	*So very beautiful is Kauaʻi*
Hemolele wale i ka mālie.	*So perfect in the calm.*
Kuahiwi nani, Waiʻaleʻāle,	*Pretty mountain, Waiʻaleʻāle,*
Lei ana i ka mokihana.	*Wears the mokihana lei.*
Hanohano wale ʻo Hanalei	***So glorious is Hanalei***
I ka ua nui hōʻeha ʻili	***With the great rain that pains the skin***
I ka wai o ʻuʻinakolo	***And the rustling water***
I ka poli o Namolokama.	***In the heart of Namolokama.***
Maikaʻi nō Kauaʻi,	*So beautiful is Kauaʻi,*
Hemolele i ka mālie.	*So perfect in the calm.*
Kuahiwi Waiʻaleʻale	*Mount Waiʻaleʻāle*
Lei ana i ka mokihana.	*Wears the mokihana lei.*

Elbert and Mahoe 1970:75

In 1939, William Kamau wrote to the newspaper, *Ka Hoku o Hawaii*, sharing the words to "Maikai Kauai." As discussed previously, it is said that this piece was originally composed as a chant to honor the hānai child of Pauahi, named Keolaokalani (Elbert and Mahoe 1970:75). The nature of this chant can be considered a mele inoa or a name chant which is defined as, "a chant composed in honor of a person, as of a chief," (Pukui and Elbert 1986:245). The closing lines of this chant resounds, "E-o mai e Keola-o-Kalani Pauahi, Ke alii nona ia inoa e-e-e-e," which is a recognition and calling out to Keolaokalani Pauhi, the aliʻi for whom carries this name (Kamau, Helu 38, 1939:3). Due to the length of this mele inoa, Kamau submitted the words to this chant in two parts which appeared in the 37th and 38th edition of the newspaper. The first half of "Maikai Kauai" was published in Kamau's article entitled "Kekahi Mau Mele Hawaii" on January 11, 1939, while the second half of the mele appeared a week later on January 18th (Kamau, Helu 37, 1939:3;

Kamau, Helu 38, 1939:3). The splashing rain that falls over Hanalei, “Kapekupeku iluna ka ua o Hanalei,” is mentioned in this mele. This mele inoa is offered below:

Maikai Kauai hemolele i ka malie,
Kupu kelakela ke poo o Waialeale,
Kela i ka lani kilakila o Kawaikini,
Waiho kahele kua linohau Akalai,
Huli e mai ka pua ke ike aku ia Maunahina,
He nani, he maikai, he hemolele,
Ke alo o Hihimanu:
Ua ana kapuai lima ia ka nui,
Ka loa, ka laula, ka hene o na kuahiwi
Aohe au mea maikai ole olaila
He makamaka ka ke oho o ka palai lipolipo i ka ua,
Ke hopu aku i ke one o Mahamoku,
Pahee i ka limu ka kanaka o Manuakepa,
Kapekupeku iluna ka ua o Hanalei,
Awala lua na hala o Haena i ka makani,
Aohe wahi hemahema iki o Hoohila,
Miki ke kai, miki kaupale, miki ka apona a ka makani,
Eo mai e Keola-o-Kalani Pauahi,
Ke alii nona ia inoa,
O auamo-iluna-ke ahi-o-Kalalau,
Ua i-i ka welona a ke ahi komo o Koholaiki (or Makuaiki):
Pipili ma-ma-u ka helena i Kamaile,
Miki maloo ke ahi haaheo i Napali,
I hooma-u ia ke ahi komo i Kohala-nui,
Kuehuehu ka laau me ka momoku,
Kukupa‘u ke kai o Nu-alolo,
Panipani paa ka puka makani,
Loli Kaelea-waa nopa i ka ua,
Polo Kauai i ka laau molale i ka malie,
Me he kua-kawau la ka ale i ka moana,
Ihu-nui peleleu Kaula na ka ino,
Nui nepunepu nemonemo,
Maikai Niihau iwaenakonu,
Niniu mai Lehua kakaa lewa i ka makani,
Lewa Kainuwai me ke Koolau,
Lewa ka Mikioi me ka Naulu,
Lewa ka ohai kuhela i ka malie,
Lewa Kaunalewa lewa ia Limaloa,
Opa na ku-ku-o Waimea,
He wai-ula Makaweli i ke aka
Lawe a-ka-lawe malie ia oe e ka Waikea,
Liki ka amona a ka manu ka-o-o i ka pua akuli,
Lehulehu ka maka o ka Awapuhi upalu i ke anu,
Lohi e mai Puna i ke Koolau,
Kunewanewa i ke one o Luhi,
Akahi au a ike i ka luhi, ka malohilohi, ka maeele,
He oi no na pali Koolau,
Ke hoao mai a ka Puu-kolu,

Paleplae ole na lima o ke Kalukalu,
Aohe pahuna hala a ka Makuakea,
Ku no mino-olu ka ili o ka laau,
I ka o-o ia e ka ua wali Kanahele,
Puu-puua iluna ke ao a ka makani,
Huahua i ka huewai a ka ua i ka lani,
Piha pono na kio-wai o Kulanihakoi,
I ka unua e ka Lawakua a oki,
Lehu wale iho no i ke anu o Alakai,
Ilihia au i ka nani o Wailua,
I lohia Wailua e ka maikaii,
I lohia lima ia e ka nani o Maluaka,
I milimili kaa ia e ka Waiopua,
I hamohamo ia waena e ke Kiu-Kauluwela,
Malamalama uka o ke Koolau,
I ka pua o ke Aalii ka maka onohi ula o Kanahele,
Pua-pua i ka nahua e ke anu,
I ke kolia e ka ua a maemae ka nahele,
E-o mai e Keola-o-Kalani Pauahi,
Ke alii nona ia inoa e-e-e-e.

Kamau, Helu 37, 1939:3; Kamau, Helu 38, 1939:3

The two versions of "Maikai Kauai" examined above; one as name chant for Keolaokalani (Kamau, Helu 37, 1939:3; Kamau, Helu 38, 1939:3); and the other, a condensed version of the chant adapted into a mele accompanied by music (Elbert and Mahoe 1970:75), are examples of the fluid nature of Hawaiian composition and its ability to evolve over time. Though the original chant in its entirety may be absent in shorter renditions of the mele, significant lines and elements of the chant have been embedded into the composition of other pieces concerning Kauaʻi. The following mele are some occurrences derived from the Hawaiian language newspaper that included mele whose opening lines mirrored that of "Maikai Kauai." The inclusion of these mele and this discussion serve to briefly highlight the way in which the poetics of mele persists as a carrier of knowledge and culture that transcends the barriers of time.

In 1867, a steamship identified as Lakawana is said to have anchored in Koloa on the island of Kauaʻi (Kuapuu 1867:1). Descriptions of this ship were published in *Ke Au Okoa* in an article written by S. K. Kuapuu of Koloa entitled, "Huakai Makaikai ia 'Lakawana,'" (A Visit to Lakawana). Kuapuu was amongst a small party who was invited to tour the vessel. The article recounts Kuapuu's recollection of the ship and discusses the ships ability and capacity through various details such as the dimension of the vessel, the amount of people that can fit aboard, its carrying weight, and other details of this nature. As a gesture of Kuapuu's appreciation for this experience and the significance of this vessel, Kuapuu offers a portion of "Maikai Kauai" with the words, "hu ae le ke aloha i ke keiki alii C. Kapaakea, nana kahi mele…" These words can be translated as, *"Love risers for the chiefly child C. Kapaʻakai, this is his song…*
The mele as recorded by Kuapuu is as follows:

Maikai Kauai hemolele i ka malie,
Kupu kelakela ke poo o Waialeale,
Kilakila Kawaikini,
Kano ka Helekua,
Linohau Alakai,
Maloeloe ka laau,

Huli e mai ka pua,
Ke ike iho ia Maunahina,
He nani he maikai ke olowa o Hihimanu,
I a-na kapuai lima ia ka nui ka loa ka laula ka hena o na kuahiwi,
Aole au mea maikai ole o laila,
He makamaka ke oho o ka palai lipolipo i ka ua

Kuapuu 1867:1-2

Other, and perhaps older instances where "Maikai Kauai" has been used in mele and oli can been seen in moʻolelo kaʻao Hawaiʻi. In the moʻolelo of Laukaʻieʻie as told by Moses Manu a portion of this chant is recited to convey the awe and majesticness of Laukaʻieʻie's home situated in the forest whose beauty no others could stand in comparison (Manu, Helu 850, 1894:1). Regarding this, the mele is offered:

Maikai Kauai Hemolele i ka malie
Kupu kelakela ke poo o Waialeale kela i ka Lani
Kilakila Kawaikini kano Kahelekua

Manu, Helu 850, 1894:1

"Kaao Hooniua Puuwai no Ka-miki " (The Heart Stirring Story of Ka-Miki) is another celebrated moʻolelo that has been preserved and documented in the Hawaiian language newspaper. This moʻolelo was published serially in *Ka Hoku o Hawaii* beginning in 1914. The saga ran for four years ending its final publication in 1917. The primary authors noted to have contributed to the publication of this moʻolelo are Hawaiian historians John Wise and J.W.H.I. Kihe. The story of Ka-Miki takes place in the 1300s at the time when the aliʻi, Pili-a-Kaʻaiea, was the district chief of Kona (Maly 1997:10). Maly, who is credited for his synopsis of Ka-Miki summarizes the moʻolelo:

> This legend is an account of two supernatural brothers, Ka-Miki (The quick, or adept, one) and Maka-ʻiole (Rat [squinting] eyes], who traveled around the island of Hawaiʻi along the ancient ala loa and ala hele (trails and paths) that encircled the island. During their journey, the brothers Ka-Miki and Maka-ʻiole competed alongside the trails they traveled, and in famed kahua (contest arenas) and royal courts, against ʻōlohe (experts skilled in fighting or in other competitions, such as running, fishing, debating, or solving riddles, that were practiced by the ancient Hawaiians). They also challenged priests whose dishonorable conduct offended the gods of ancient Hawaiʻi. Ka-Miki and Maka-ʻiole were empowered by their ancestress Ka-uluhe-nui-hihi-kolo-i-uka (The great entangled growth of uluhe fern which spreads across the uplands), a reincarnate form of the goddess Haumea (the creative force of nature; also called Papa or Hina; who was also a goddess of priests and competitors).
>
> Maly 1997:10

The chapter of the story we bring our attention to concerns Ka-Miki and the wahine of Pili-a-Kaʻaiea. The moʻolelo describes her to be a beauty of Kona whose status is recognized as sacred and one to be held with high-esteem (Ka Hoku o Hawaii 1917:1). When referring to her beauty, Ka-Miki references "Maikai Kauai" and likens the references made in this mele for Kauaʻi to the way in which her countenance and overall beauty can be similarly compared to features belonging to the ʻāina of Kona. The segment of the mele that Ka-Miki recalls is shared below:

Maikai Kauai Hemolele i ka malie

Kupukelakela ke poo o Waialeale kela i ka lani,
He nani ai aina a he kilakila ua hiki no,
Ke ike wale aku i kona hiona kamahao.

Ka Hoku o Hawaii 1917:1

"Maikai Kauai" also appears in the moʻolelo of Lonoikamakahiki. In the context of this moʻolelo, the lines of this mele are used to refer to an individual from Kauaʻi. This particular segment of the saga of Lonoikamakahiki was published in Ka Nupepa Kuokoa in 1888.

Maikai Kauai hemolele i ka malie
Kupu kelakela ke poo o Waialae
He laau pale ia na ke anu
Oo i ke nahele o mahiki

Ka Nupepa Kuokoa 1888:4

Another traditional moʻolelo kaʻao is the story of Puakaohelo which is the story of a sacred chiefess of Hawaiʻi. In the chapter relevant to this discussion, mele and oli are exchanged as means to reference the various lands that are highlighted in the moʻolelo. When Hilo is referred to, the lines of a mele celebrating Hilo are recited. When Maui is mentioned, lines of a mele honoring the moku of Wailuku and Hāmākualoa of Maui are mentioned. As for Kauaʻi, a mele beginning with the words, "Maikai Kauai" is used.

Maikai Kauai, nani na pae puu e alo nei i ke kai
O Haupu mauna kilohana i ka lai
I kuia e kealewa o Kalanipuu e au nei i ke kai
Aloha kukui paahaahaa o Huleia
Lamalama ukiuki kai ekeeke o Nawiliwili

Ka Nupepa Kuokoa 1894:1

The final mele that is included here as an example of the renditions of "Maikai Kauai" is recorded in an article discussing a song concert or ʻAha Mele that took place in Kīlauea, Kauaʻi. The article was written by "Poli Lauae" in 1899. The author details that the ʻAha Mele happened on the evening of Saturday, January 21 and describes the collective joy and pleasure that permeated throughout this event (Poli Lauae 1899:2). A line up of the various choirs, clubs, duets, and singers that participated in this ʻAha Mele, as well as the songs they each performed is listed in this article. Poli Lauae wrote that the concert concluded at 11:00 pm and reflected on the deep appreciation and aloha that was felt spending time with one another to honor the songs of old. As a closing, the author offered these lines of the mele:

Maikai Kauai i ka malie,
Ohuohu i ka lauae o Makana
He makana hanohano na Haena,
Na hala o Naue au i ke kai,
Waiakanaloa kaʻu aloha,
Waiakapalae kau i ka pali,
E aha ana oe a e Lohiauipo
Nanea ana paha me Kilioe
O oe a owau ka i like iho
I ka wehi pau ole a oia pua.

Poli Lauae 1899:2

Anoano iaʻu ka lehua makanoe

Anoano iaʻu ka lehua makanoe, is the first line of a chant that appeared in the moʻolelo kaʻao concerning Laukaʻieʻie as told by Moses Manu. The portion of Laukaʻieʻie's story that is highlighted here was published in the 914th issue of *Ka Leo o ka Lahui* in 1894. In this particular chapter of the saga, Kaulaaihawane shares a chant praising his homelands of Kauaʻi– poetically referred to in this moʻolelo as, "Kauainuiamano," (Manu, Helu 914, 1894:1). Kaulaaihawane is said to have chanted this oli, while Kaohaiula stood near with ʻiliʻili pōhaku or small stones used in hula (traditional form of dance) to accompany the chant as Kaohaiula was famed for the art of dancing hula (Manu, Helu 914, 1894:1). Embedded in the body of this chant is the line, "E ala e Hanalei aina ua loku," which can be interpreted as, *"Arise, Hanalei the land of pouring rain."* Portrayed here is the reference to the heavy downpour of rain that is a notorious occurrence associated with Hanalei. Included below is the chant offered by Kaulaaihawane that speaks of Hanalei's rains and other significant elements unique to Kauaʻi:

Anoano iaʻu ka lehua makanoe
Ke kohaihai a ka la i ke kula
Hulili mapuna iluna o Lehua
Ka halailai ma ke kowa o Kaula
Ikiiki wale i ka la o ka Makalii
He ʼlii ka la no na moku
Moku kele i ke kai o Kauai-e-e ala
E ala e Haupu me Keaolewa
E ala e Wailuanuiahoana
E ala e Kalalea me Kahihikolo
E ala e Hanalei aina ua loku
E ala e Kupakoili me Kaukaopua
Ko-pua-ko mu-ko ao-ko liko
Ua Uo ia e na hala o Luia
Luhi i kanahele o Hihimanu
Manuakepa i ke one o Mahamoku
Kuu moku lehua iuka o Kailiahi
Ahi na lima o Kalawakua
Lawe ke kai i Kahaka-la-lilo
Kaauhau me kapapala
Nihi kolo i ka lae o Makuaiki
Na ke kupa ʻoʼ ahi o Kamaile
Lei aku i ka Pahapaha o Polihale
He hale kipa kou e ke aloha o Mana
O Mana i ke kaha puaohai
Haina mai ko inoa–
O Kawelonaakalailehua

Manu, Helu 914, 1894:1

He Mele no Keahi

"He Mele no Keahii" is a composition that was published in the Hawaiian language newspaper, *Ka Hoku o ka Pakipika*, in 1862. Other than the composer of this mele which was signed, "*Kekinoluhi. Pauoa, Honolulu Mei 17, 1862,*" no other text regarding this composition accompanied it. Revealed in the title of the article for which this mele appeared, "He Mele no Keahi" *(A Song for Keahi)*, it is understood that this mele was written for an individual by the name of Keahi. References to Kauaʻi such as Waiʻaleʻale mountain, place names, winds names, names of heroes and aliʻi, as well as other significant features and characteristics of Kauaʻi are thoughtfully placed throughout this mele. In relation to this study, the second paukū of this mele speaks to the study area of Hanalei. The first line of this paukū recalls, "Maikai Hanalei luia i ke ala," is a poetic description of the sweet-smelling fragrances of Hanalei that is scattered about. The mele as a whole is included below:

Maikai ke kuahiwi ka mauna o Waialeale,
Ke kaau a Kalalea i ka makani,
Ke alawa iho ia lalo o Kulaia,
Waiho i ka nani ka maikai o Puna,
Mahaio aku wau o ka wai o Wailua,
E hoao ana i ka pali o Makana,
Ua paa na manao me Waialoha,
E hui mai ka pono me Honopu,
Me ka auhau papala i Makuaiki.

Maikai Hanalei luia i ke ala,
O ka molale o ka wai o Aupali,
Ua nolu wale i ka pua o ka Awapuhi,
Ka maka maikai o ka lehua makanoe,
I nohenohea i ka wai o Hauailiki,
Pehea oe e ka lupua pahele hala,
Ua paa na manao me Waiolono,
E hui mai ka pono me kanoeanu,
Me kuu ipo lehua i ka lama,
Noe aku la ka pua o ka painiu,
Ka pala memele i ka ili o ka wai,
I maewa lupalupa i ke kai o Wailua,
He lua ole oe e ke aloha e.

Aia la o ka maka palupalu,
Maka aloha o ka ohai i ka la,
Unahe wale mai no ka pua o ka mamo i ke kula,
Ka maka mohaluhalu o ka lehua i ka nahele,
Anoano aloha mai ana iaʻu Waialeale,
O ka maka ka eha o ke Koolau i ka nahele,
Ka ili palapalauli o ka ohia i Kookolau,
Ua hoomalu wale i ke oho o ke ki,
O ke oho o ka lehua upalu i ka ua.

Maikai Manuahi pahee i ka noe,
O ka molale o ka ili hala molale o na pali,
O ka mahaleha o ka noe o alakai,

I haka pono ia e ke anu o Hauailiki,
I apoa mai ka lai ana o na kuahiwi,
Ke nana iho i ka puahau o Maluaka,
O ka holu malie a ka wai i Wailua,
Niniu ka pua hala maewa i ke kai,
I ke aka lawe a ka wailiula o Mana,
Halu ka maka o ka ohai i ke kula,
Ku aku la i ka piko olu o ke aloha,
Ua uwauwali a hoowali ka pua o ka Iliau loha i ka la,.

Maikai Kaala ka oi o na kuahiwi,
Ke kelakela oi o na mauna ke ike aku i ka ili o ke hoa,
E onaona wale no ka pua o ka lama ke nana aku,
I ka maka upalu o ke koolau o Malama,
Ua u-u-ume wale i ka pua o ka mauu,
I ke oho nupanupa o ke kupukupu nupa i ka la,
Mohalu aku la ka pua kukui lana i ka wai,
Ua ane olu aku la ha ka eho o ka awapuhi,
I ka ua ia e ka ua nolu ka nahele a.

Aia la o ka mauna o Lihau,
Ke kela ui aa o na Mauna,
Ke nana aku i ke alo pali o kaipali,
Ia pua kihene ia e ka noe lehua,
Helelei ka pua mokaki i ka haoa e ka makani,
Kau liilii ka wai o na pali,
Lai ka ikena i ka hene o Kalama,
I ka hoohu hoowaliia e ka awapuhi,
Hu aku la i ka piko olu o Uumanawa.

Kekinoluhi 1862:1

He Wahi Mele no Kapualeilahaoleinapali

"He Wahi Mele no Kapualeilahaoleinapali," (*A Little Song for Kapualeilahaoleinapali*) is a mele similar to the one examined above in that it is a mele dedicated to an individual. In this case, this mele was composed for an individual referred to as Kapualeilahaoleinapali. This mele was published in the Hawaiian language newspaper, *Ka Nupepa Kuokoa*, in 1863. And similar to the previous composition, no other text regarding the mele accompanied this article other than the composer of this mele which was signed, "*S. W. Kawainui. Hoooipu, Kohala, Hawaii. Iulai 21, 1863.*" Thoughtfully strung together in the poetics of this song, references to the beauty of Kauaʻi are seeded throughout its composition. Particular to this study, a line of this mele references Hanalei. The mele recalls, "Ola o Hanalei i ka ua nui," "*Hanalei lives in the heavy rains*," and is a testament to the heavy rainfall renowned for this ahupuaʻa. The mele in its entirety is as follows:

Maikai Kawaikini maemae i ka makani,
Ka nani hemolele o Hauailiki,
I inikiia e ka noe eha Kalawakua,
I kini keaka ia e Kahalauaola,
Ola o Hanalei i ka ua nui,
Ka laau hooulu kino o Waialeale,
Ua noho aloha i Hihimanu,

I na hoa pakahuli o Kalehuamakanoe,
He noe maka uwahi lehua no Kawaikoi,
Ke pua mai la i ka haha o Kaunalewa,
Kainoa ua pau ka nani o Kikiopua,
Aole o ka maaoka mau ia o ka la o Halaihi,
O ka maawe o ke we no ia i ka laalaau,
O ke oki ia o ko Kalukalu o Kapaa,
O ka maopopo ia o ka lohe,
O ka puunaue a ka haawi like ka pono,
Ua pono Kalamaihiki, ua hala Kamahualele,
Paa kulana ka noho ana o Ainaike,
Ke ike aku i ka unu lau o Halalii,
Hele ke aka o ka liula maalo i Kealia,
Waiho i ke akea ka laula o Koholalele,
Huʻe ka mamaka wai lehua o Kupakoili,
Hooili i ke anu i ka noe leua o Aipo,
Aipo i ka mahele wai o Kukalakamanu,
Ke halaku mai la ke kai i ika haka o Nualolo,
Kau ka hoopai a ka ua iluna o ka laau,
Kaumaha iho la ka ula i ka eheu o ka manu,
Lai iho la e ano iluna o Leinoai,
Kipupu kela i ka ale wai o Namalokama,
Holo haalele ka auhau a Manuakepa,
O ke kauoha leo nui ana a Kekoolauahine,
E kii ae oe ia Hoakalei,
I hala ole ai oe i ka ua Kapaahoa,
I koa kaulua no ka wai o Makaweli,
I hoohoa ia i hoa no ka wai o Ahulu,
Ke kulepe mai la ka ua i ka limu o Mahamoku,
E hoonani ana i ka liko o ka Ohia,
I nui kaha ka nahele o Haiaimalama,
Malama ka ula i ke kai o Lehua,
Kahu nana a ka manu i Kahalauaola,
Ola o Keawekikeeleihala, ke keiki nona ia inoa,
Ke ai i ka pua hala ai o Alakai,
O na keiki manu a Kuhaimoana,
Ke hoi ae la e hoolulu ilalo o Kaipoli,
Pemehana wale ka noho ana i Waahia,
Me na hoa hui aloha i Waialoha–e,
A he aloha–a, A he aloha no–e.

Kawainui 1863:1

O Hanalei ua pehu ka lani

Another type of mele is a kānaenae or a chanted prayer (Pukui and Elbert 1986:126). In 1873, S. L. Kaelemakule wrote to the *Ko Hawaii Ponoi* Hawaiian language newspaper regarding the life of his beloved wife, Jane Loeau (Kaelemakule 1873:4). In the article, entitled, "He Moolelo no Jane Loeau," Kaelemakule talks about his wife and the way in which they were inseparable. According to Kaelemakule, Jane Loeau was born in 1847 and passed away in 1865. In this article, Kaelemakule shares a collection of kānaenae aloha he composed for his wife. Two of Kaelemakule's pieces reference Hanalei and are included in this discussion. The first line of one

of Kaelemakule's mele for his wife states, "O Hanalei ua pehu ka lani," *(Hanalei of the swollen heavens)* and is poetic statement referring to the moisture captured in the clouds from the great rains of Hanalei.

O Hanalei ua pehu ka lani,
Pohu ka lani, loloa ka opua,
Opua lani uli ku hakakai,
Kai ka ua e–e ua i ka liko,
A ka liko awe loloa ka ua iluna,
Lele pulelo iluna o ka lau o ka laau,
Ukui i na pakeke wai o Neki,
Piha Hilo ke kaheka kulu a ka wai,
Wahiaia aku la Waioli e ka ua,
Naha Hanalei ke kahe nei ke one,
Oia ua e–e ua i Hanalei
Oia no–a.

Kaelemakule 1873:4

Hanalei lani kūpilikiʻi, kūpilikiʻi mau a ka lani

Hanalei lani kupilikii, kupilikii mau a ka lani, is the opening lines of another one of Kaelemakule's kānaenae aloha composed for his late wife. Kūpilikiʻi, meaning crowded, packed distressed, severe is also seen in other phrases such as, "Kūpilikiʻi Hanalei lehua lā" *(the lehua of beautiful Hanalei are storm-buffeted)*, (Pukui and Elbert 1986:185), and can be interpreted here as a reference to the stormy skies of Hanalei. This particular mele kānaenae is provided below:

Hanalei lani kupilikii, kupilikii mau a ka lani,
Huikau ae la he hooilo, mahiki mai la ka lehua,
Ka lehua hale, ka lehua makanoe,
Ka naele i o ia e ka wai ka lepo,
O Hiku iluna o Maunahina,
Kupeke, kapekepeke iluna o Hanai'liki,
Iliki ka noe, anu ka nahele,
He nahele anu, me ua hoa'la i na lae ino o ka moe,
E poi ana a ku ke hu,
Moe aku ka luhi i Kauakanana–e,
E hoonana ae ana i ka moe–e,
O oni mai auanei ma ka hope,
Mahope mai–a
Oia no–a.

Kaelemakule 1873:4

He Kanikau

Mele Hawaiʻi can take various forms. The types of compositions that have been examined thus far in this study have been mele, mele inoa, oli, and kānaenae. Another common type of mele significant in Hawaiian culture are kanikau. A kanikau is a lament or chant of mourning often used in expressing grief and sorrow when mourning the loss of someone beloved (Pukui and Elbert 1986:129).

In 1849, *Ka Elele Hawaii*, published a kanikau composed by G. S. Naoka for a child that had passed. References made throughout the kanikau highlight features, elements, and places associated with Kauaʻi, thus revealing that the child who had passed was most likely a child of Kauaʻi. "Aloha na pali o Koolau a me ka ua nui o Hanalei," is a line that appears in this kanikau that speaks of the fondness possessed for the Koʻolau cliffs and heavy Hanalei rains. The love for this keiki (child) of Kauaʻi as expressed by G. S. Naoka is revealed in the composition below:

He u, he manaolana a me ke aloha ia oe e ka naauao,
Ka pua Lose o ko Hawaii nei paeaina,
Ka pahu kani e ne ana i na moku,
Aloha kahi a kaua e hele ai,
Aloha ke kula o Hanamaulu a me ke one o Alio,
Aloha ka wai au o Wailua a me ke kalukalu o Kapaa,
Aloha Kalalea i ka makani a me ke ao poonui o Anahola,
Aloha na pali o Koolau a me ka ua nui o Hanalei,
Aloha o Waioli i ke koekoe a me ka limu ka kanaka o manuakepa i ke one Mahamoku,
Aloha ka ulu hala au o Naue i ke kai a me Haena i ka lae o ka ia,
Aloha ke ahi lele o Kamaile a me ka auhulaana o Milolii,
Aloha ka Pahapaha o Polihale a me ke one kani o Nohili,
Aloha Mana i ka ai uahi ole a me ke kaha i ka ulu niu,
Aloha Waimea i ka lai o Kona a me Hanapepe i ka paio a ka ino,
Aloha Koloa i ka wiliko i ka hooke a na haole,
Aloha ka wai ono o Kemamo a me ka opae mahiki o Niumalu,
Aloha Nawiliwili i ka ulumano a me ka hauola o Kalapaki,
Mai Kalahaki a Niumalu kahi a kaua e holoholo ai,
Aloha ka pali o Kuleia o Kalanipuu au ana i ke kai,
Kipuni Haupu paa i ka ua noe,
Hehee na mauna hoolele i na kai;
Kupikio ka moana aleale i ka makani,
Kiikii ka opua hoonahanaha i ka lewa;
Kuaua kahi ke aloha opeope i kuu manao,
E ka naauao, e aloha oe,
Kuu hoa hele o kahi mehameha, hoa kuka o ke kuluaumoe,
Kuu makamaka o kahi makamaka ole,
Kapale kaua imua o na lii,
Ka pua mae ole i ke awakea,
Ka opiuma e eha nei o kuu naau,
Ka lei hulu puehu ole i ka makani,
Ke kapa daimana alohi i kuu maka,
Ka poli ala pumehana i ke aloha,
Akahi la a ke aloha i pepehi ai,
Ua eha ka iw, ua pahole i ka nahele;
Pepe ka manao a puiwa i ke aloha,

E ka naauao e hoi mai kaua he ino ae keia,

Naoka 1849:1

He Kanikau no Samuela Mahelona Opio

In 1912, an article published in Ka Nupepa Kuokoa wrote of the tragic automobile accident that took the life of an individual by the name of Samuela Mahelona Opio. The article describes that on the morning of October 20, 1912 four cars piled along the face of a cliff (Ae Kai o Niumalu 1912:7). As a result, Sam Mahelona Opio passed away at 1:35pm later that afternoon at Līhuʻe hospital (Ae Kai o Niumalu 1912:7). The author spoke of the compassion felt for Sam and how Reverend William Kamau and others surrounded Sam to sing hymns and offer prayers. A kanikau for Sam was included in this article and was written by an individual using the pen name, "Ae Kai o Niumalu." The opening lines of this mele mirror the ʻōlelo noʻeau, "Luʻuluʻu Hanalei i ka ua nui; kaumaka i ka noe o Alakaʻi," meaning, *"Heavily weighted is Hanalei in the pouring rain; laden down by the mists of Alakaʻi"* (Pukui 1983:219, #2034). As interpreted by Pukui, this saying is an expression to convey the burden of sadness and the heaviness of grief similar to the way in which a heavy downpour of rain is felt (Pukui 1983:219, #2034). Beginning this kanikau in this way, is reflective of the grief felt for the loss of this individual. The kanikau for Samuela is provided below:

Luuluu Hanalei i ka ua nui.
Kaumaha i ka noe anu o Alakai;
I ka hele a Same Mahelona Opio,
Ua hele i ke ala hoi ole mai;
Hoi ka uhane hoi me ke Akua,
Hoi ke kino hoi i ka noe a ka Ua Paupili;
O ka pili aloha ana ua kaaweale,
Me he mea la e i mai anal
Kaawale kaua e mana,
Papa, aole kaua e iku hou ana;
Kuu mau pokii e aloha olua a nui loa,
Naha ka ua o Pueo i ka makani;
Hanini ae la mauka o Kilohana,
He hana nui ke aloha na ka Makua e u ai;
Kani-a-a wale aku ai no i ke ano o ke ahiahi,
I ke kulu-kulu o ke aumoe;
Ua moe o Sam i ka moe kau moe hooilo.

Ae Kai o Niumalu 1912:7

Luʻuluʻu Hanalei i ka ua nui

Another mele that opens with the words, *Luuluu Hanalei i ka ua nui* was published in *Ka Leo o ka Lahui* in 1894 and appeared in the article entitled, "Mai Malama i na Haku Elua." This article which included the lines of this short mele was penned by "Puuwaialoha." In this context, the saying can be translated to mean, *"Hanalei is downcast with great rains,"* and similar to the other mele examined thus far in this study, this mele is a remark to the abundance of rainfall of Hanalei. This mele is provided below:

Luuluu Hanalei i ka ua nui
Ua oi ku i kanahele o Koiaanana
Kawaha ua o ke hele kua

Puuwaialoha 1894:3

ʻO Hanalei ʻāina hakukele i ka ua–e

In 1870, D. Kaukaha wrote to the newspaper describing a rain storm in Hanalei, which according to Kaukaha, was something of its kind that was never yet seen before (Kaukaha 1870:3). On September 19, 1870, Kaukaha described that a rain and thunder storm had befell upon Hanalei. For an entire day from the rising of the sun till its setting, the storm persisted. According to Kaukaha, lightning struck one of the homes of James Robinson severing the house in half (Kaukaha 1870:3). Unfortunately, a pet dog was laying asleep in the home and died as a result of the lightning strike (Kaukaha 1870:3). Kaukaha also reported two other fatal casualties that had occurred. Thomas Kellitt and Peter Rowline were said to have been igniting an imu (underground oven) when lightning struck causing them to have been knocked over by a wall that fell directly on top of them (Kaukaha 1870:3). Kellitt and Rowline died in this incident. Kaukaha wrote that never before had a storm like this occurred in Hanalei and recalled these lines of a mele:

> **“O Hanalei aina hakukele i ka ua–e,**
> Hakukele ka ipuka o na hale i ka wai–e.”
>
> Kaukaha 1870:3

Hakukele, translated as “wet,” is used in this mele to describe Hanalei as a land wet and moistened by the rain and abundant of water. (Pukui and Elbert 1986:50).

Hanohano Hanalei i ka Ua Nui

In 1924, E. K. Haleakala wrote of a singing competition that took place on July 5th of that year. The article, “Lilo ka Makana i ka Papa Himeni o Haili,” briefly remarks on the singing competition. The choir group of Haili in Hilo took first place, while the choir of Hanalei took second place (Haleakala 1924:2). The lines of the mele included below was said to have been sung out by the people of Kauaʻi. The opening line of the mele celebrates the glorious rains of Hanalei.

> **Hanohano Hanalei i ka Ua Nui,**
> E pakika i ka limu Maunakepa,
> Ilaila hoi au ike iho ai,
> I ka hana hu’i koni koni i ka ili.
> He aloha kahi one o Pua Rose,
> I ka hoopeia e ka hunakai,
> Akahi hou au a ike i ka nani,
> Hanohano Hanalei i ka Ua Nui
>
> Haleakala 1924:2

He Moolelo no Aahoaka

Other instances where the greatness of Hanalei's rainfall is mentioned is seen in a mele found in the moʻolelo of ʻAʻahoaka.

Kuʻu haku i ka ua nui o Hanalei

"He Moolelo no Aahoaka ke Koa a me Kona Hanau Kupanaha Ana" *(The Story of ʻAʻahoaka the Warrior and His Amazing Birth)*, is an old moʻolelo of Kauaʻi (Ka Nupepa Kuokoa, Helu 53, 1876:1). This moʻolelo ran serially in Ka Nupepa from 1876 to 1877. During the birth of ʻAʻahoaka, prominent natural phenomenons occurred such as the clapping of thunder, lightning strikes, earthquakes, a downpour of rain, and the rushing waters of the streams which flowed red. These natural phenomenons lasted three days and three nights (Ka Nupepa Kuokoa, Helu 53, 1876:1). In a chapter of this story, Kahaleala is unable to be with his wahine and cries out the lines of this chant as he travels to ʻAnini for the sorrow felt having been separated from his beloved (Ka Nupepa Kuokoa, Helu 1, 1877:1). The chant recalls:

Kuu haku i ka ua nui o Hanalei
Lei ana o Luia i na hala o Pooku,
Ku au e hele, haalele au ia oe,
O oe ka uhane iluna o Hihimanu,
Me he manu la o Puupoa e au nei i ke kai,
Akahi au a ike i ka mea nui la he aloha,
Aloha o–e, aloha no hoi au–e.

Ka Nupepa Kuokoa, Helu 1, 1877:1

Similar to the other mele discussed in this study, the first line of this piece references the great rains of Hanalei. Poʻokū which is both a land section and heiau of Hanalei is also mentioned in this mele.

Nani Waiʻaleʻale he kuahiwi no Hanalei

In the following chapter of the moʻolelo concerning ʻAʻahoaka, another mele highlighting Hanalei is shared. In this particular development of the moʻolelo, Limunui is said to have composed a name chant for the chiefly child named Limaloa (Ka Nupepa Kuokoa, Helu 2, 1877:1). The moʻolelo documents that Limaloa was born in Waiawa and was raised by Kaunalewa and the high chiefess Kahelu (Ka Nupepa Kuokoa, Helu 2, 1877:1). The mele inoa composed by Limanui for this keiki aliʻi is shared below. Waiʻaleale mountain and caves of Hanalei, as well as other ahupuaʻa belong to the Haleleʻa Moku such as Waioli and Limahuli are referred to in this mele inoa.

Nani Waialale he kuahiwi no Hanalei,
Lei aʻu maka i na hala ai a ke kinau,
Ma hala ai a ke kinau o Waioli,
He olioli makuahonowai ke aloha.
E aloha ae ana ia Limahuli,
Huli ka amau ka lau o ka akolea,
Kuu hoa i ke ana o Hanalei,
O kuu lei na hiki mai–e,
Aloha no–e,
Oia hoi–e.

(Ka Nupepa Kuokoa, Helu 2, 1877:1)

Nani Waiʻaleʻale he ipukai na ke kēhau

Similar to the example above, as the story of ʻAʻahoaka continues, a keiki alualu or still born child is born. The moʻolelo recounts that many chiefs and commoners alike began composing mele inoa for this child. One in particular was crafted by Paeaea and embedded in this piece are elements that honor the island of Kauaʻi. The persistent rain of Hanalei that is a common occuarance of this area is mentioned in the line, "He mea hana mau no ka ua no Hanalei," (Ka Nupepa Kuokoa, Helu 8, 1877:1).

Nani Waialae he ipukai na ke kehau,
Pahee i ka noe luna o Maunahina,
Hina ke oho o ka mauu Kalamalo,
Kuu hoa i ke anu o Aipo–e, Haha–e,
Hala ka mapuna wai o Kikiopua,
Me he opua la o Mokuaeae e au nei i ke kai,
Aohe aapoi a ka naulu i ke kula.
He mea hana mau no ka ua no Hanalei,
Lei Hihimanu i na lehua waimaka nui.
O kuu manao ua hiki mai–e,
U–hu, He aloha–e,
Ua hiki no–e.

Ka Nupepa Kuokoa, Helu 8, 1877:1

Ka Moolelo Hiwahiwa o Kawelo

"Ka Moolelo Hiwahiwa o Kawelo" is another treasured and moʻolelo kaʻao of Hawaiʻi. This tale recounts the story of Kawelo, also known as the Uʻi of Hanalei. This moʻolelo appeared serially in the Hawaiian language newspaper, *Kuokoa Home Rula*. The first publication of "Ka Moolelo Hiwahiwa o Kawelo" was released in *Kuokoa Home Rula* in January 1909, with its last publication recorded in April 1910. Hooulumahiehie, accredited for documenting many moʻolelo Hawaiʻi, such as, the moʻolelo of Hiʻiakaikapoliopele, is also accredited for offering the story of Kawelo to the readers of *Kuokoa Home Rula*.

Pehu ka-ha ka limu o Hanalei

As this moʻolelo is a long epic, the chapter of the story that is highlighted here is the "paha hoʻālohaloha" Kawelo composed for his cousin, Kauahoa (Hooulumahiehie, Helu 48, 1909:4). A paha is defined as a type of "chant that is improvised", while the word hoʻālohaloha is a term used as an expression of love or affection (Pukui and Elbert 1986:299, 74). This paha hoʻālohaloha or improvised chant of expression that Kawelo offers to Kauahoa acknowledges the abundance of Hanalei. The first lines of this paha states, "Peha ka-ha ka limu o Hanalei," and is a recognition of the swollen and plump limu of Hanalei. The closing remarks of this composition describes Hanalei as a cold, damp land for which they reside. The mele is as follows:

Pehu ka-ha ka limu o Hanalei,
Pehu ka luna i ka maka o ka opua,
Hai hewa ka lima i ke kaua kamalii,
E i aku ke kaua i ka hope,
Me he ku la na ke kai hohonu,
Me ka hiwahiwa a Kauakahi,
He opua oe, he kakala kela,
Na ka ole ka hue a ke aki–e

E-a Kauahoa ka ui o Hanalei,
Ala o Kamalama ka ui o Kualoa,
Ala o Kawelo ka ui o Waikiki,
Ala o Kaelehapuna ka ui o Ewa,
Ala o Kalaumeki ka ua o Waianae,
Huhue aku kaua moe i ke awakea,
Kapae ke kaua e ka hoahanau,
E waiho iaʻu i kou hoahanau,
Aole hoi na la o kuu hoike,
Kuu hoa hele o ka wa kamalii,
Hoa kui lehua o Waikaee,
A kaua e kui kane ai,
I lei no ke kaikuaana haku o kaua.
E ala e Hanalei,
Hanalei aina anuanu,
Aina koekoe,
Aina a ka pea i noho ai,
E–a Kauhoa,
Ka Mee-ui-o-Hanalei––a.

Hooulumahiehie, Helu 48, 1909:4

ʻO Hanalei ʻĀina Ua

Following the moʻolelo of Kawelo, the next chapter reveals another instance when Kawelo improvises a chat. Utilizing similar words to the closing lines of the previous chant explored above, this mele is recited by Kawelo to Kauahoa. This mele is another example of the way in which the ʻāina of Hanalei is described in these moʻolelo Hawaiʻi of old.

O Hanalei aina ua,
Aina anuanu,
Aina koekoe,
Aina a ka pea i noho ai,
Noho ana e liu ana e,
Maewa ana ka ukiuki o Honokoa,
I ka pali o Kalehuawehe,
Pua ka lama me ka wiliwili,
O ka ua lele mawaho o Mamahoa,
O Kauahoa ka Mee-ui-o-Hanalei,
Ke kanaka a Kamalama i hopo ai o Kauahoa
He mea e ka nui–e–a
Eia ka hoi ua kanaka nui o Kauai o Kauaohoa.

(Hooulumahiehie, Helu 49, 1909:4)

O Lonoikamakahiki ka pua a kalani

Kamakau documented many moʻolelo and kaʻao during his time. In 1871, Kamakau published articles in *Ke Au Okoa* concerning the aliʻi, Lonoikamakahiki. In a portion of this longer epic, Kapaihiahilina is said to have composed a mele hoʻālohaloha for the Lonoikamakahiki for their journey to Kauaʻi (Kamakau 1871:1). The chant in its entirety is included in this section honoring the craftsmanship of Kapaihiahilina's poetics, however, the part of the mele that will be highlighted in this discussion relevant to this study is the line "O Pooku i Hanalei la." This line is a reference to the area and heiau of Poʻokū located in Hanalei.

O Lonoikamakahiki ka pua a kalani,
O kalani kapu a Keawe i hanau,
Hanau kalani ke'lii kuhalau,
He halau nehe lono mai Kapaahu,
Ka ahuula kapu o Kumalanahewa,
Ua hewa, ua hewa e–
Ua hewa ia'na la he hoomauhala,
Aole ano hala i hoomau ai e kalani,
Kii malu a ka pua a kalaua,
He kalana ka i ka hele ana,
Hele ana i Opikananui i Opikanalani,
I kahua a kanuu i ka papa kalena,
He au ka aina,
Ka aina o Wakea i noho ai e o Wakea,
O Wakea ka lani,
Ka pua a Keawe i hanau,
Hanau mamua ka hoa,
Ukali aku mamuli ka hele,
Oi hele mai ka wa kini,
A hune, a mehameha, a kanaka ole,
Hele koolua i ka nahele,
I ka laau koa kumu ole o Kahikikolo,
Hilihili aku i ka malo palai pau,
Hahaki i ka lauki pea ma ke kua,
Ia loaa ke kapa aahu o kaua,
O hele, o hele a–
O hele a ai i ka ua pala a ka hala,
[*illegible*][1]
Inu aku i ka awa o Koukou,
I ka awa lau hinalo aala,
Awa ona o Mamahoa he hoa e,
He kaupu e Lono e ,
He kanaka au no ka ua iki,
Ina hoi ka he hoa au no ka ua iki la paia,
He hoa i ka nahele lauhala loloa,
Mai Kilauea a Kalihi la,
O ka hala i ai'na kepa ia e ka manu,
O Pooku i Hanalei la,
Hala ia mao a kaua e ke hoa e,
He hoa i ka makani lauwili poaihele,
Mauka o Hanalei iki a Hanalei nui,
Mauka mai hoi kekahi ua,
Makai mai hoi kekahi ua,
Ma nae mai hoi kekahi ua,
Malalo mai hoi kekahi ua,

[1] This mele is transcribed from a digitized scan of the Hawaiian language newspaper article made available by Papakilo Database. Four lines of this mele are illegible due to the quality of the scan and cannot be interpreted. Therefore, the reader should note that this is not a complete portrayal of the mele.

Maluna iho hoi kekahi ua,
Malalo ae hoi kekahi ua,
Ma ka lae hala o Puupaoa,
Ilaila ka ua kike hala,
Hoowalea i ke one ai a ke kinau,
He kinau ai hala o Mahamoku,
Ka ua hoopala ohia o Waioli,
He olioli au e pono o oe ka haku a,
O ka haku maka o kalamanuu,
O Kamakaleioku kalai aku Hooneenuu,
Ke ana a Kalaukanikani,
Kaniku hele ka ua i kaupaku o ka hale o moe a,
Ilaila ka ua haahula i ka nahele,
Haahaa ka ua i ka nahele,
Lauwili ka ua i ka nahele,
Opea ka ua i ka nahele,
Kilihuna ka ua i kanahele,
Pohina ka ua i kanahele,
Anuanu ka ua i kanahele,
Koekoe ka ua i kanahele,
Opili ka ua i kanahele,
Haukeke ka ua i kanahele,
Hoopala ohia ka ua i kanahele,
I ka nahele o Laauhaeleele o hele a,
Walea kanaka i ka hele a hoi mai,
He lalo ino he lalo akiaki ka ko muli nei,
Eia mamuli ka ukali ka eleele,
Ke pai ka hookuke a,
He nani nei hele ua hookuke oe,
Eia la ka hewa o ka noho hale,
O ka noho a ku ae haalele,
Loaa la ko'u kina ilaila,
Ko ka ohua ukali ino a,
Aloha a haalele ia oe ke hele nei,
Ia hele kikaha ae la ka ua o Hopukoa,
A Waialoha, eia la e–
Aloha wale ana ka wau ia oe i loko o oka ua hoa.

Kamakau 1871:1

Hanohano Kauaʻi o Manokalani

Their moʻopuna (grandchild) Miss Mary Werner. Mr. and Mrs. Kuapahi wrote that their Mary was born on March 4, 1900 in Hanalei on the island of Kauaʻi and passed away at the young age of 17 (Kuapuhi 1917:8). The article expresses their love for their beloved granddaughter. Mr. and Mrs. Kuapahi shared that Mary was a member of the ʻAhahui Kaʻahumanu (The Kaʻahumanu Society) and the ʻAhahui Aloha o Hanalei (Hanalei Society). Because of her involvement in these groups, Mr. and Mrs. Kuapahi wrote: "ke hookomo pu nei maua i ke mele i hakuia no ke ola o ka Ahahui Aloha a na Wahine o Hanalei," *(We are inserting her a song composed for the life of the ʻAhahui Aloha and the lady of Hanalei)*, (Kuapuhi 1917:8). The mele dedicated to their granddaughter of Hanalei is shared below:

Hanahanao Kauai o Manokalani,
O ke kihapai pua a ke aloha;
A he pua i mohala i ke awakea,
No ka Ahahui Aloha o Hanalei.

Chorus:
E ala na kini o ka aina,
Na hoa hanohano o ka Ahahui;
Hookahi puuwai me ke aloha,
Imua na hana me ka lanakila.

O ke ko mai a ke kehau,
Ka makani kolonahe o ka uka;
Halihali mai ana i ke ala,
I ohu a i wehi nou e ka ua loku,
Ano ai e ka wai olu o Kemamo,
Me hooipo i ka poli o ka malanai,
E ke ahulau makani o Koolau,
E hea e kipa ka anoi.

Kuapuhi 1917:8

Historical Context

Historical resources (foreign accounts, written materials, photographs, maps, and depictions) concerning the lands, resources, and communities of Hanalei Ahupuaʻa are utilized in this section's narrative to synthesize historical information regarding the study area in Hanalei from the late 17th century through the 20th century.

Kalae Aina

The history of land division in Hawaiʻi is deep. Boundaries and island kingdoms, chiefdoms, were constantly in flux through conquest, resource distribution, and the mixing of aliʻi lineages. It was not until the mid-19th century that a formal system of land division, a Western, British system was adopted. During this era, lines were drawn on maps.

Māhele

The 1848 Mahele was established by the Hawaiian Kingdom Governmen, during the reign of King Kamehameha III, Kauikeaouli t to guide Hawaiʻi in its transition from a traditional system of shared land tenure to a western model of fee simple of title land ownership, modelled after the British system (Van Dyke 2008:30). The traditional Hawaiian land system existed within the context of a stratified social order, a self-sustaining model of ahupuaʻa management and use, and a communal and subsistence-based economy which worked effectively for the people for generations (Van Dyke 2008:1,11). The traditional land tenure system was based on a reciprocal relationship which derives from the lesson of mālama ʻāina (to care for the land). It is derived from a cosmological worldview that Hawaiians have a genealogical connection to the land and a responsibility to steward the lands and waters that feed them. This relationship is defined by the kaikaina-kuaʻana (younger sibling-older sibling) reciprocal relationship (Kameʻeleihiwa 1992:25). The land and water were not owned in any legal sense, but revocable rights to its use were allocated and reallocated from the mōʻī (king or paramount chief) down through the ranked system of aliʻi and finally to the makaʻāinana (people on the land). The Māhele introduced the foreign concept of private property and fundamentally changed people's relationship to land. During this process tenants of the land were required to state their claims to the lands they cultivated and dwelled on to gain permanent title; Native Register (NR) and Foreign Register (FR). The application process required claims to be supported wtih the testimony of neighbors, aliʻi, or others knowledgeable of the claimants' use on the land and how the land was obtained; Native Testimony (NT), Foreign Testimony (FT). If the title was awarded, the Land Commission required the claimant to pay a commutation fee and conduct a survey of their parcels, resulting in a final deed via a Land Commission Award (LCA). The testimonies, surveys, and award documents created during the Māhele provide firsthand accounts of residency, resources, land use, access, traditional and customary practices and inoa ʻāina for land across the pae ʻāina of Hawaiʻi.

During the Mahele, several Land Commission Awards (LCAs) were made in the study area (Figure 10). Makai lands within the study area were deeded by Kamehameha IV to Charles Titcomb, while John Brosseau and T.C. B. Rooke received Konohiki and Other LCAs. Hawaiian Kingdom Government Grants comprised the mauka half of the study area. Additionally, five kuleana LCAs were awarded across the river from the study area to Kealaiki, Puupoa, Paaiki, Kalawakea, and Kalakala, and another two on coastal lands south of the study area to Naiwi, Punonea, and Uloa (Figure 10).

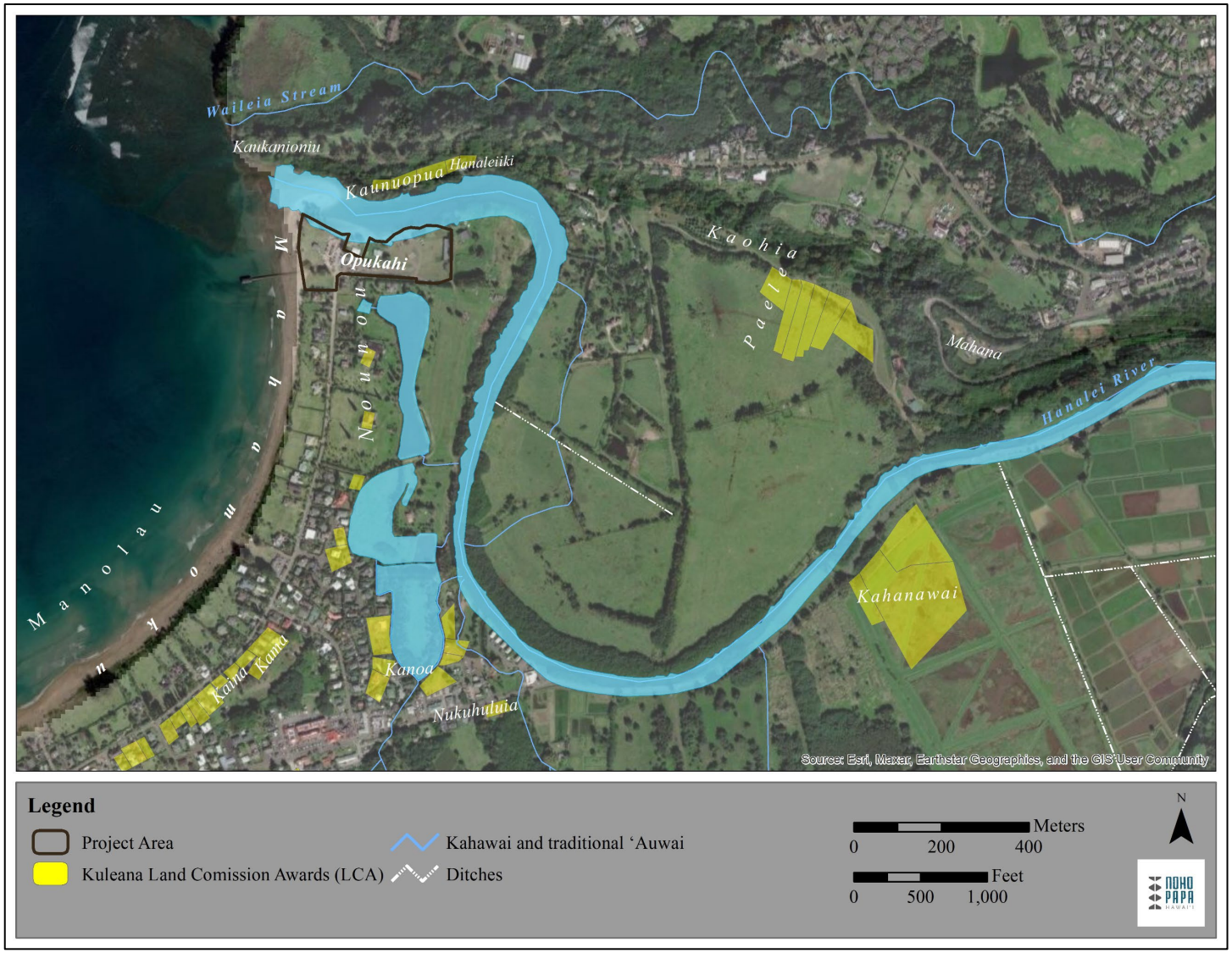


Figure 9. Depiction of the study area with place names and traditional waterways identified. Yellow polygons are kuleana Land Commission Awards, and names in white on land are ʻili ʻāina, land divisions smaller than an ahupuaʻa. Mahamoku is the long sandy beach stretching from the Hanalei River mouth to Waipā, and Manolau is a reef and possibly an ʻili as well..

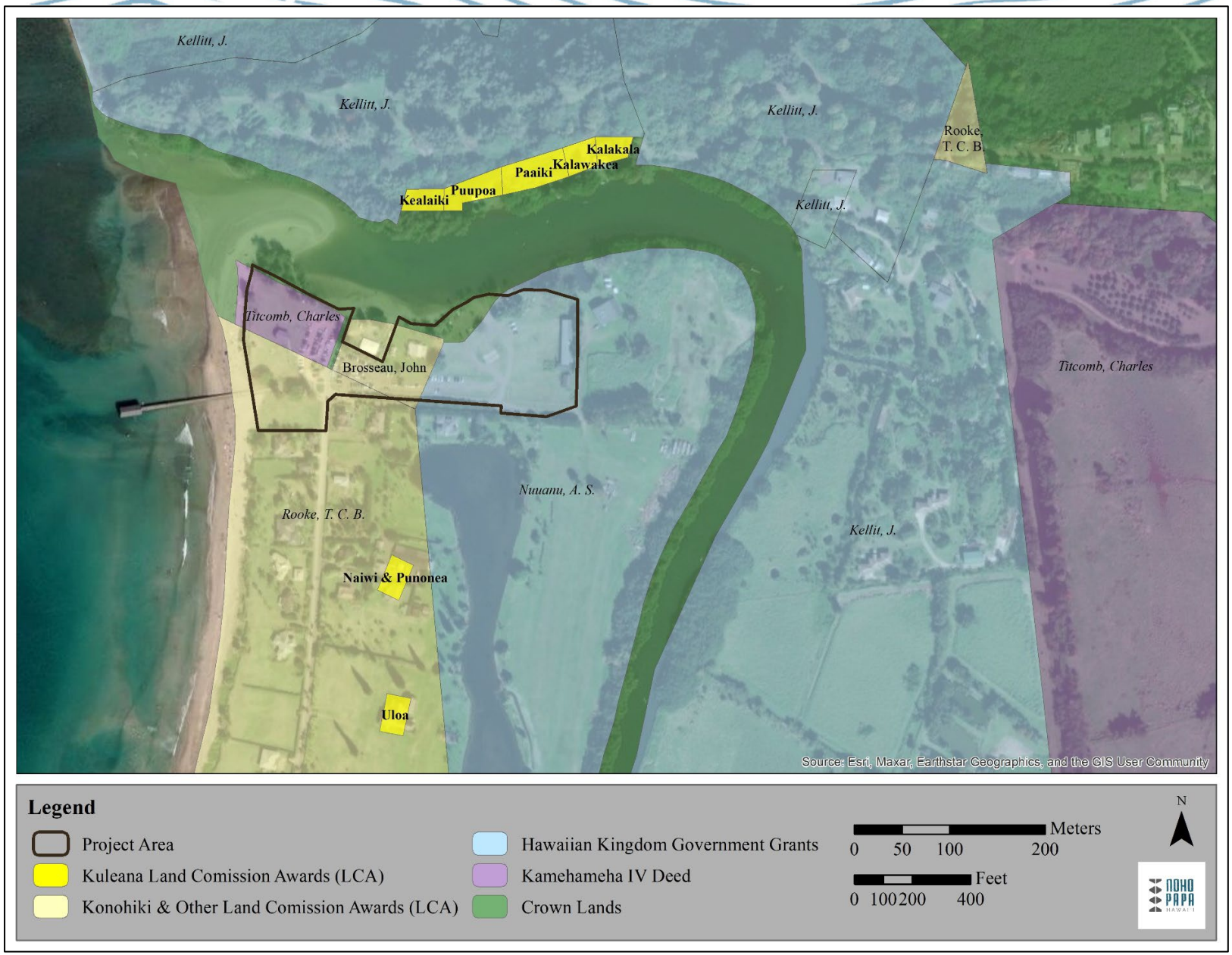


Figure 10. Map depicting the location of the project area with locations of Land Commisison Awards, Government Grants, Kamehameha IV Deeds, adn Crown lands in the vicinity.

Table 1. Land Commission Awards (LCA) within and around the Project Area, in Hanalei Ahupuaʻa. All LCA in the table are depicted on one or more of the following maps: Hawaiʻi State Register Map (RM) 2257, Land Court Application (LCApp) 1771 map 1 circa 1959, or LCApp 1160 map 2 circa 1935.

Claimant Name	LCA No.	Award Year	Buke Mahele	Royal Patent No.	ʻĀpana No.	Acres (per GIS)	ʻIli ʻĀina	Cultural & Natural Resources
Kealaiki	4083 & 9137	1851	Vol.4 p.417-418	7008	3 (of 3)	0.24	Kaunuopua	pā hale, ʻili Kaunuopua
Puupoa	10646 & 3819	1852	Vol.8 p.521-522	3363	1	0.39	Kaunuopua	pā hale , Hanalei River muliwai, ridge of Puupoa, ʻili Kaunuopua
Paaiki	10648 & 3816	1851	Vol.4 p.419-420	3035	2 (of 2)	0.53	Kaunuopua	pā hale, Hanalei River muliwai, ridge (of Puupoa), ʻili Kaunuopua
Kalawakea (Kalowakea, Kaloakea)	4081	1857	Vol.6 p.162	4882	1 (of 1)	0.25	Hanaleiiki	pā hale, Hanalei River muliwai, Inoa ʻāina: Kaluakawaha, Kuapuka, Kauloulu
Kalakala	9078 & 4073	9078	Vol.6 p.159-160	2919	1 (of 4)	0.23	Hanaleiiki	pā hale, kahuahale, alani (lāʻau), Inoa ʻāina: Waihi, Kahua, Kaahaapiki, Kaluakanaka, Haulepeamoa
Naiwi & Punonea	10691	1851	Vol.8 p.523	7004	2 (o 2)	0.25	Nounou	pā hale, ʻauwai
Uloa	10915	1851	Vol.4 p.112	4790	2 (of 2)	0.25	Nounou	pā hale
Brosseau, John	52		Vol.1 p.172-175	--	1 (of 1)	1.71	Opukahi	house
Rooke, T. C. B	597		Vol.3 p.116-118	6461		109.00		

LCA 4083 to Kealaiki, vol.4 p.417-418

In 1848, Kealaiki filed a Native Register claim for their house lot (NR: v9, p98-99. Native testimony supporting Kealaiki's claim was issued by Namauu and Puhipuhi (NT: v12, p156-157) in 1850. Namauu states that the pā hale of Kealaiki is in the ili ʻāina of Kaunuopua, and was given to Kealaiki by the wahine of Abrahama, the kahuna. Kealaiki describes the southern side of their ʻāpana to be bordering the muliwai of the Hanalei river, and names it as Waiaula.

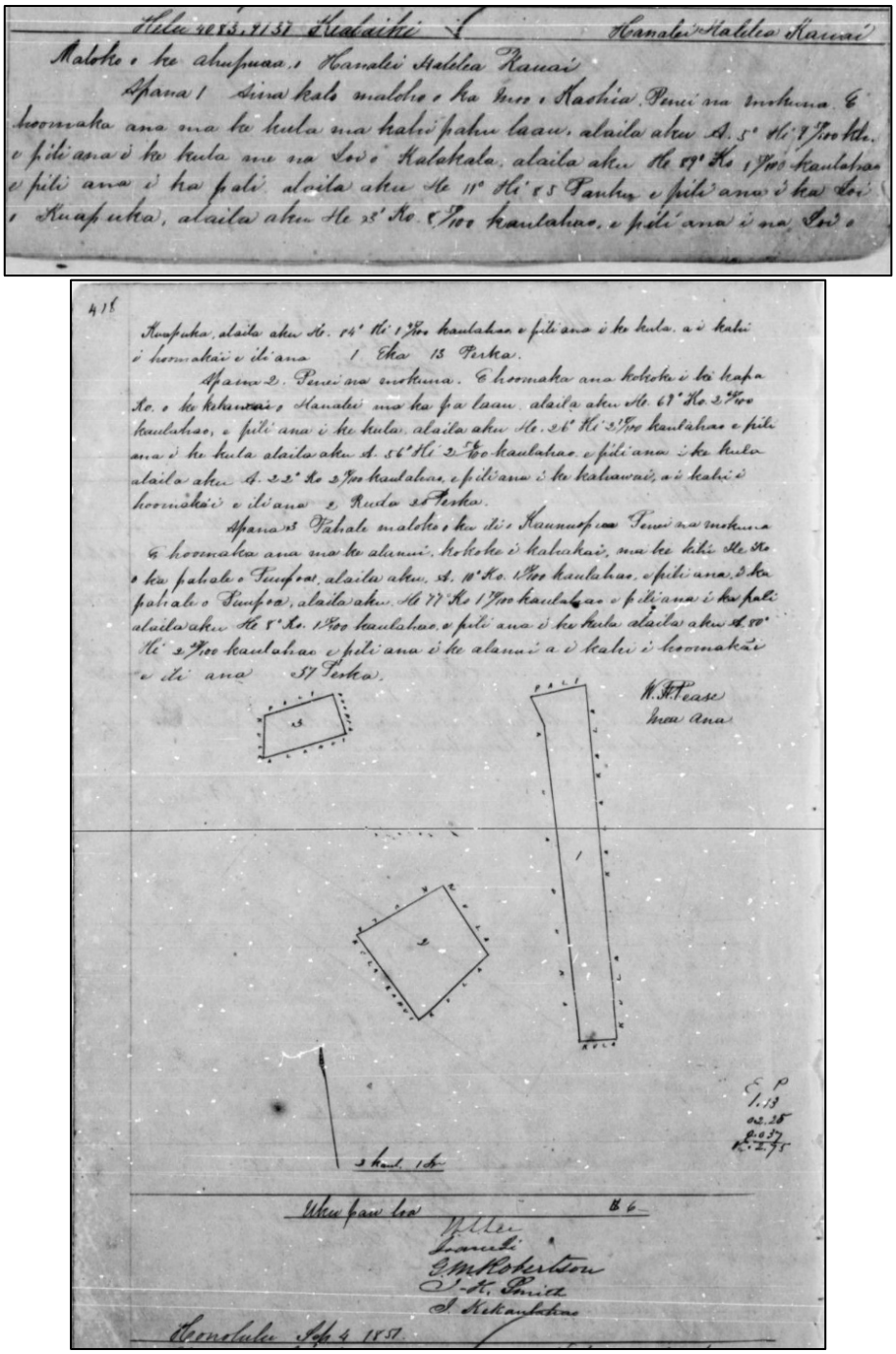


Figure 11. Land Commission Award No. 4083 awarded to Kealaiki. Note: in Kealaiki's Native Testimony, Namauu describes ʻāpana 3 pictured above in the Land Commission Award as ʻāpana 2.

Native Register 4083, vol.9 p.98-99, 416

E. Kealaiki

Aloha oukou e ka poe hoona kuleana aina. Eia wai ke kanaka o ka Mokupuni o Kauai, he hoike aku nei ai ia oukou i koʻu wahi kuleana aina. Aia no ia ma ke Komohana, ko Namauu, ma ka Hikina, ke one, Mahamoku a me ka Akau, Hawaiiloa, a ma ka Hema ka muliwai, Waiaula(?). Penei ke anana. 3 kaulahao ma ka akau. 3 hoi ma ka hema. 2 hoi ma ka Hikina. 2 hoi ma ke Komohana. Oia koʻu wahi kuleana aina, a na oukou e hooko mai. Mai ka makahiki 1838 a hiki mai i keia la.

O wau no ka oukou ..
Me ka mahalo
E. Kealaiki

Aole i kakauia na olelo haole a Ioane e hoike ana no keia mau mea i kakauia maluna.
I. P. Iasona Kakau Olelo

Aloha to you folks, the land commissioners. Here is I, a person from the Island of Kauai showing you my kuleana lands. There at the west is Namauu's land, at the east, the sand, Mahamoku and at the north, Hawaiiloa and at the south, the muliwai, Waiaula. Thus, these are the measurements. Three chains on the north. 3 as well on the south. 2 on the east. 2 on the west. This is my kuleana land, you all will fulfill this for me. From the year 1838 until this day.

Yours truly and with thanks,
E. Kealaiki.

Native Testimony 4083, vol.12 p.156-157

Kealaiki mea kuleana

Hoohikiia o Namauu me ka olelo mai penei. Ua ike (pono, kono, komo) ao i na aina o Kealaiki ma Hanalei. Penei, apana 1 Kalualo, apana 2 Kaumuohia pahale, apana 3 o Kaohia ka inoa o ka aina moo aina elima loi.

Apana 3
M - kula konohiki
N - loi o Kuakua Haole
K - aina o Nohiuala

Ua haawaiia o Apana 1 i ke konohiki i ka M. H. 1839. Ua haawaiia o apana 2, e ka makuakane o ka wahine e Abrahama ke Kahuna, Apana 3 ua haawaiia i ke konohiki i ka wa o Kaahumanu. Ua paa pono me ke keakea ole ia, a hiki i keia wa, ua holua pono no aole ka ewaewa ka noho ana.

Hoohikiia e Puhipuhi, inoa mai la, ua ike pono au i na aina o Kealaiki ma Hanalei o na olelo a Namauu o ko maua olelo hookahi no ia, aole paewaewa, ua pae pono no.

Sworn by Namauu.

I have seen the lands of Kealaiki in Hanalei. Thus, apana 1 is in Kalualo, apana 2 in Kaunuopua is a pahale, the name of apana 3 is Kaohia which is an aina moo with 5 loi.

...Apana 1 was given to Kealaiki by the konohiki in the year 1839. Apana 2 was given by the father of the wahine of Abrahama, the Kahuna. Apana 3 was given by the konohiki during the time of Kaahumanu.

Sworn by Puhipuhi,

I have seen the lands of Kealaiki in Hanalei that Namauu has spoken about, our words are one in the same, unbiased, and correct.

LCA 3819 & 10646 to Puupoa, vol.8 p.521-522

In 1853, Puupoa filed a Native Register claim for their house lot (NR: v9, p91, 304-305). Native testimony supporting Puupoa's claim was issued by K. Kawainui (NT:v12, p52-53). In their claim, Puupoa explains that their pa hale is in the ili of Kaunuopua, Hanalei. K. Kawainui testifies that they had seen the pā hale of Puupoa, which is adjacent to the muliwai of Hanalei River.

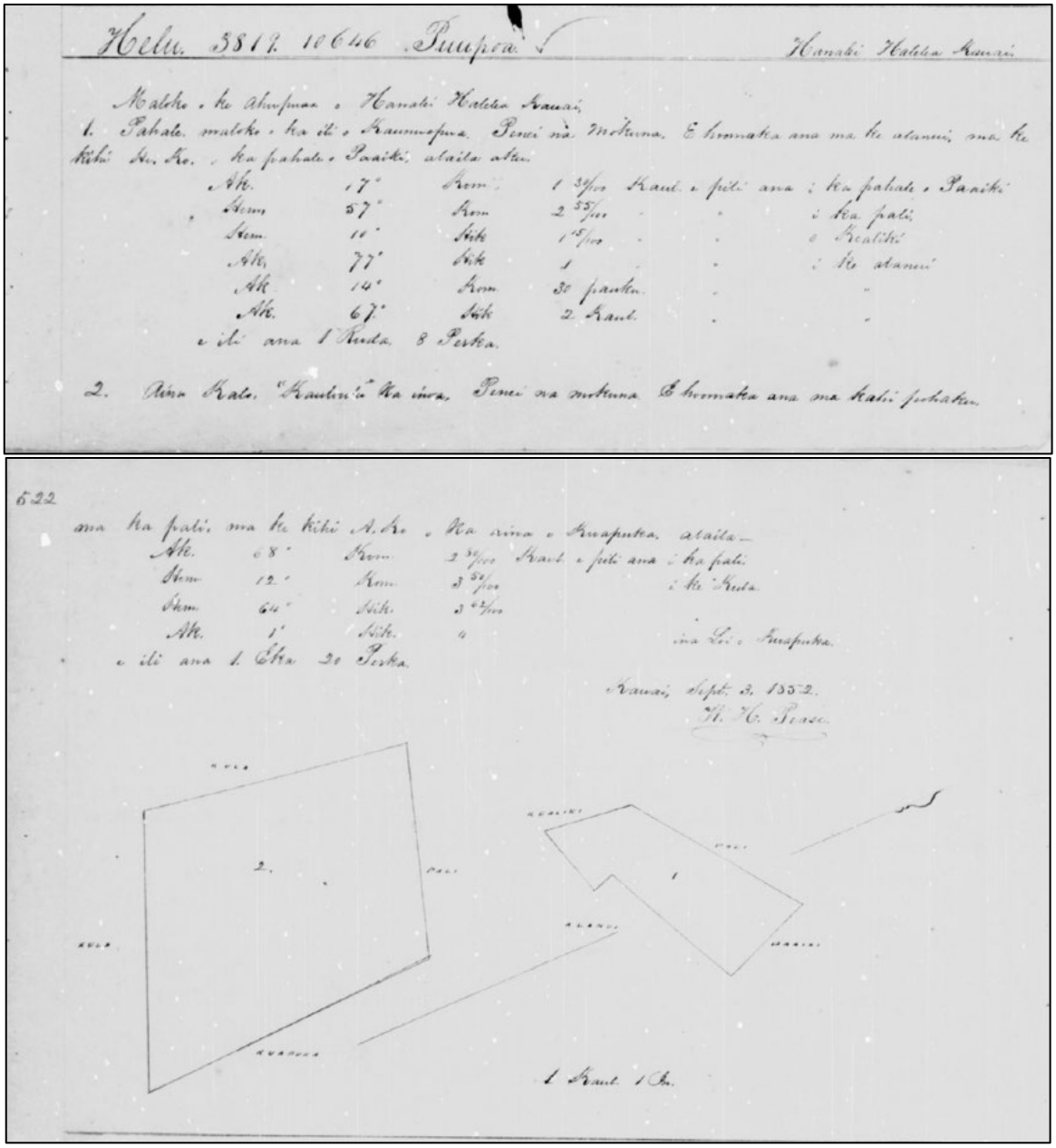


Figure 12. Land Commission Award No. 10646 awarded to Puupoa. Note: 'āpana 1 is described as "Pahale", and 'āpana 2 is described as "Aina Kalo".

Native Register 3819, vol.9 p.91
(also Native Register 10646, vol.9 p.304-305

Puupoa Hanalei, Kauai

E ka Aha Hoona Kuleana aina ma ka Hale Kauwila. Aloha oukou. Eia wai he kanaka no ka mokupuna o Kauai, ke ku aku nei imua o oukou no koʻu kuleana aina, mai ka wa o Kaumualii, a hiki i keia la e hoike aku la i mua o oukou ka poe Hoona Kuleana aina a ka Moi i koho aku ai na oukou e hooiaio i na kuleana o kanaka. Mai ka wa kahiki loa ka noho ana o na makua ma keia wahi a hiki mai iau i ke keiki; a ua kanaka makua au. 20 paha makahiki a keu koʻu noho ana ma keia wahi. No laila, manao loa au he kuleana keia noʻu a kau aku i kaua keiki i ole ai e poino kona noho ana ma keia hope akau a me kana mau keiki ke paa keia wahi iau, ma ke kuleana oiaio no e noho nei i keia wa ke hooko ia mai e oukou. Eia ua wahi nei ma Hanalei, o Kaunuopua ka inoa. Penei ka waiho ana. 17 anana ma ka aoao Komohana, 34 4/6 anana ma ka Akau. Ma ka Akau, ka muliwai o Hanalei, ma ka Hikina ka pa o Kahuna, ma ka Hema ke kualapa o Puupoa, ma ke komohana o ka pa o Paaiki. Eia ka inoa o na Hoike.

Poopoo Lilomana
Paaiki Miko

O wau no me ka mahalo,
Nau na Puupoa

...For about 20 years I have lived here, therefore, I strongly believe this is my responsibility to pass on to my children lest they fall into misfortune of not living here with their children in this place held by me, it is your duty to fulfill this for us. This place in Hanalei, Kaunuopua is the name. These are the measurements. 17 fathoms on the west side, 34 4/6 fathoms on the north. On the north is also the muliwai of Hanalei, on the east, the pa of Kahuna, on the southern side is the ridge of Puupoa, and on the west is the wall of Paaiki. This is the name of what I show:

Puupoa Lilomana
Paaiki Miko

Yours truly with thanks,
Puupoa.

Native Testimony 8419 & 10646, vol.12 p.52-53

Puupoa mea kuleana Hoohikiia o K. Kawainui. Ua ike no au i ka pahale, a me ka aina kalo ma Puupoa ma Hanaleiiki Apana 1 Hema - Muliwai Akau - Pa o Nahuna Hikina (not sure) - aina o John Kellet Komohana - Pa o Poai iki Apana 2 M - aina o Kuapuka N - Aina o Mokuha M - " " K - Kaupulehu ka inoa he aina Mai kahiko loa ka loaa ana o keia mau aina ia Puupoa a i kona mau makua aku a pela no ka pahale aole mea keakea
Puupoa's kuleana Sworn by K. Kawainui. I have seen the pā hale, and the kalo land of Puupoa at Hanaleiiki. Apana 1 Hema - Muliwai Akau – Boundary of Nahuna Hikina – Land of John Kellet Komohana – Boundary of Poai iki From a time very long ago these lands were obtained by Puupoa and their parents, as well as the house, this is not contested.

LCA 10648 to Paaiki, Buke Mahele, vol. 4 p419-420

In 1848, Paaiki filed a Native Register claim for their house lot (NR: v9, p306. Native Testimony supporting Paaiki's claim was issued by Kalauakea and Puupoa (NT:v12, p53). Kalauakea testified that Paaiki's pā hale is in the 'ili 'āina of Kaunuopua, Hanalei. Paaiki also testifies that the 'āina is situated within the 'ili 'āina of Kaunuopua, as well as adjacent to the muliwai of the Hanalei River.

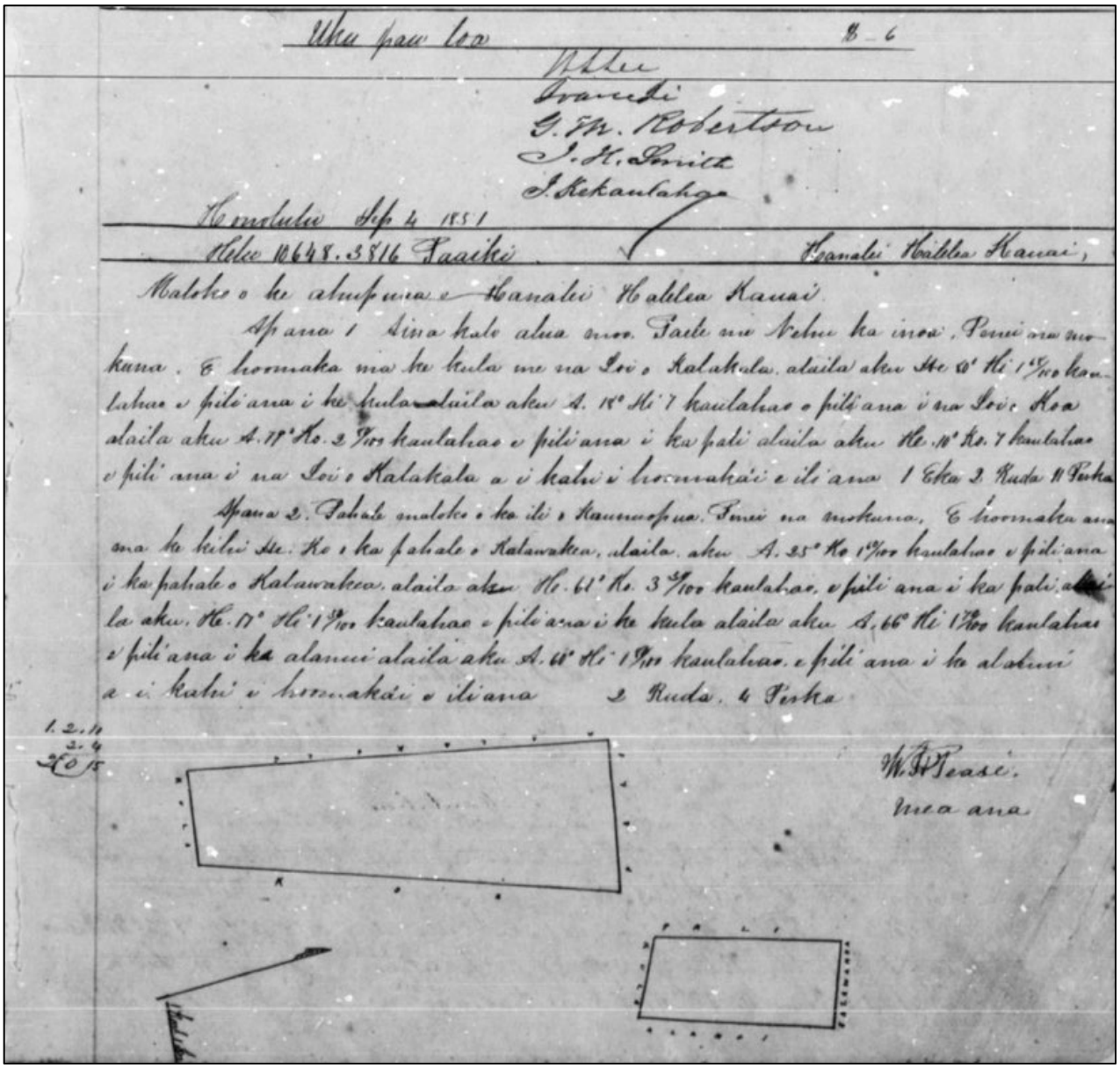


Figure 13. Land Commission Award No. 10648 awarded to Paaiki. Note: 'āpana 1 is described as a "aina kalo", and 'āpana 2 is described as a "pa hale" in Kaunuopua. Kalauakea refers to pa hale as 'āpana 1 in their Native Testimony.

Native Register, Volume 9:306, Helu 10648, Paaiki.

Paaiki

Hanalei, Kauai. January 7, 1848

To the Land commissioners at the Hale Kauwila, aloha to you. I am a person from the island of Kauai, coming before you to show you folks my responsibility for my lands, from the time of Kaumualii until this day…From a long time before, my parents lived here at this place, and had children. I am an elder now, I have lived here for 40 years. Therefore, I strongly believe this is my responsibility to bestow upon my children lest they fall unto the misfortune of not living here with their children in this place of mine. The responsibility lies with you to fulfill this. This is the place of kuleana at Kaunuopua in Hanalei. Here are the measurements. 18 fathoms on the east side. 36 ½ fathoms on the south. 17 fathoms on the west. 3 3/6 fathoms on the north side. At the north is the Hanalei muliwai, at the east is Puupoa's wall, at the south is the ridge of Puupoa, at the west is Kalauakea's wall…

I thank you as your humble servant,
Paaiki

Native Testimony, Volume 12:53, Helu 10648, Paaiki.

Paaiki's kuleana

Sworn by Kalauakea.

I have seen the lands of Paaiki, apana 1 at Kaunuopua is a pahale. Apana 2, there are 2 kalo field lands at Hanaleiiki, Paeli is the name of this ili moo, and Nihu is the pit of the moo.

Apana 1 Pahale
Hema - Muliwai of Hanalei
Akau – Boundary of Puupoa
Hikina – Land of Kellit
Komohana – Boundary of Kalauakea

…the house is from the time of Kaumualii possibly acquired before from the parents of Paaiki in the year 1834, transformed by Paaiki, this is not contested.

Sworn by Puupoa.

I have seen this land of Paaiki. Same as that of what Kalauakea has testified.

LCA 4081 to Kalawakea, Buke Mahele, vol. 6 p162

In 1848, Kalawakea filed a Native Register claim for their house lot (NR:v9, p98). Native Testimony supporting Kalawakea's claim was issued by Paaiki and Puupoa (NT: v12, p53-54). Paaiki testifies on behalf of Kalawakea that their pā hale is situated adjacent to their own pā, and the muliwai of the Hanalei River.

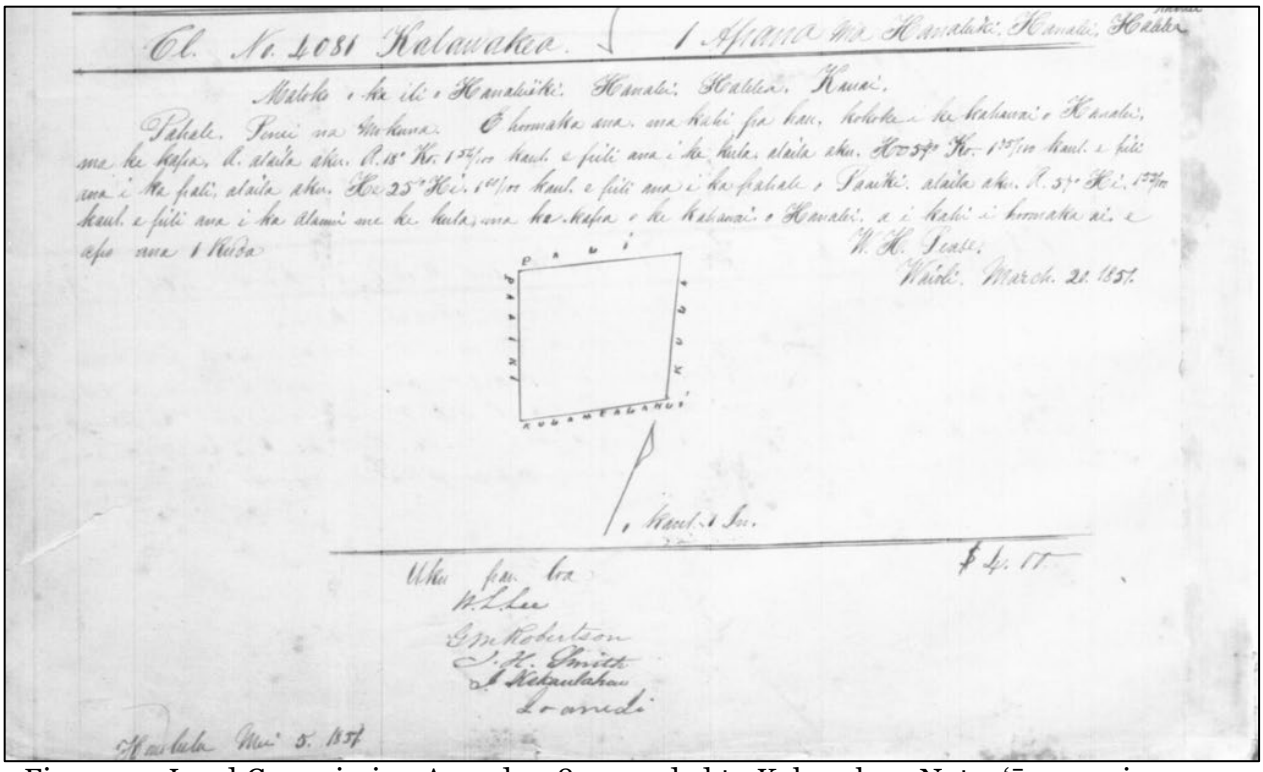


Figure 14. Land Commission Award 4081 awarded to Kalawakea. Note: ʻāpana 1 is described as "Pahale" in the ʻili of Kaluakawaha.

Native Register, Volume 9:98, Helu 4081, Kalawakea.

Aloha to you, the land commissioners. I am going to tell you folks of my kuleana lands on the island of Kauai at Hanalei. Here are the fathoms; 45 fathoms on the north, 45 fathoms on the south, 22 fathoms on the east, and 22 fathoms at the west. The wall of mine was completed, and the houses where I live. This is where I am living, and have been living there for this long; from the year 1837 to the year 1848 in the month of January. It is yours to fulfill, the land commissioners at the Halekauwila.

Thank you and yours truly,
Kalawakea

Native Testimony, Volume 12:53-54, Helu 4081, Kalawakea.

Kalowakea's kuleana
Sworn by Paaiki.

I have seen the house of Kalowakea at Kaluakawaha at Hanalei, in the first apana.
Apana 1 Pahale
Hema - Muliwai o Hanalei
Akau – My boundary
Hikina – Land of John Kellet
Komohana - " "
Kalowakea obtained this land from the time of Kaumualii, this is not contested.

Sworn by Puupoa.
I have seen these houses of Kalowakea just as Paaiki has stated.

LCA 9078 toKalakala, Buke Mahele, vol. 6 p159

Kalakala filed a Native Register claim for their house lot (NR: v9, p407. Native Testimony supporting Kalakala's claim was issued by Paaiki and Puupoa (NT: v12, p51-52).

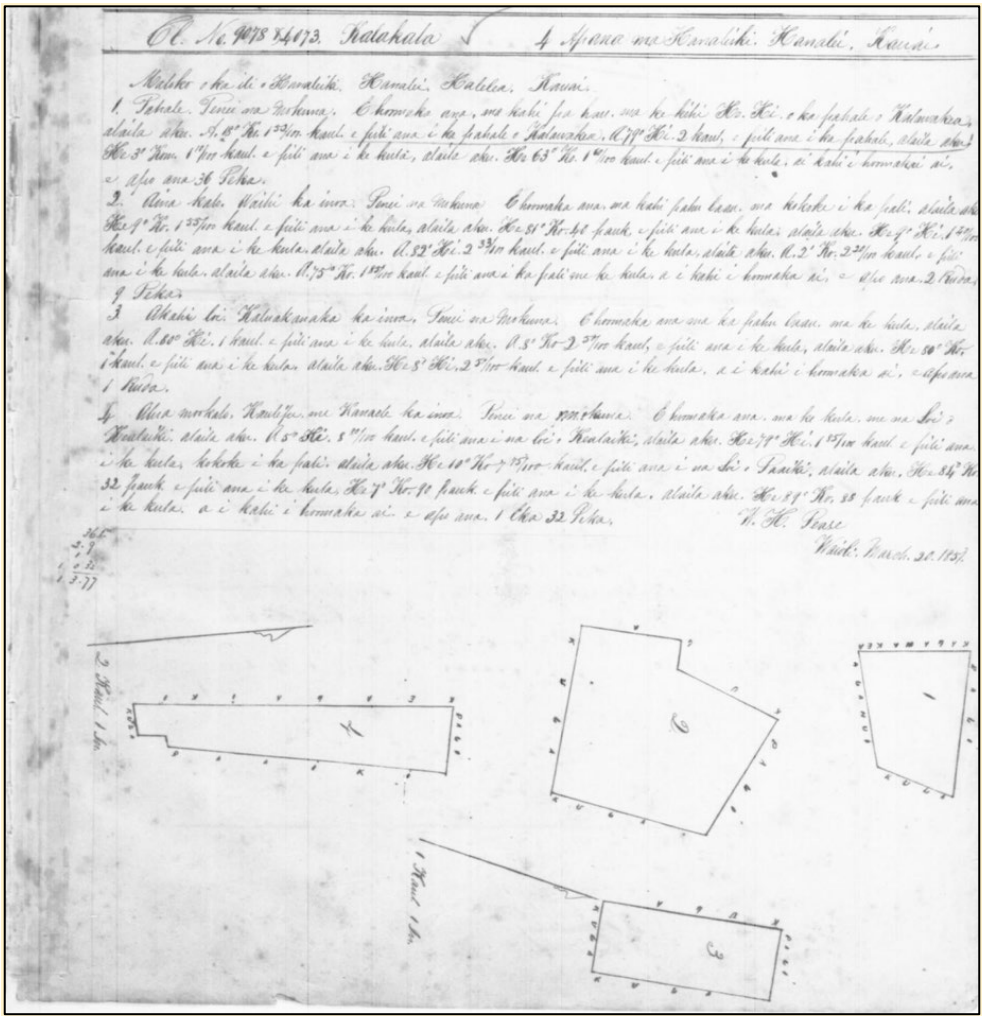


Figure 15. Land Commission Award No. 9078 awarded to Kalakala. Note: ʻāpana 1 is described as a "Pa hale", ʻāpana 2 is described as "aina kalo", named "Waihi". ʻĀpana 3 is described as "akahi loi", named "Kaluakanaka", and ʻāpana 4 is described as two "moo kalo", in Haulepeamoa.

Native Register, Volume 9:407, Helu 9078, Kalakala.

Here is the names of Hanalei; Waihi, Kaluakanaka. You folks, land commissioners, see this picture above, which is the large responsibility of my lands that I carry to you, which you shall fulfill. So thus is the kuleana; from Kaumualii time until this day. From the year 1848 we have lived here. At Hanalei is this kuleana of mine…

Thank you and yours truly,
Kalakala

Kalakala's Kuleana

Sworn by S. Kawainui.

I have seen the lands of Kalakala at Hanalei, and the house foundation at Kahua until Hanalei. There are 4 apana. The first apana is a kahuahale at Kaahaapiki, the second apana is four loi, the name is Waihi. The 3rd apana, a loi, Kaluakanaka. The fourth apana has 2 loi moo aina of Haulepeamoa.

Apana 1
Hema – land of John Kellit
Akau - " "
Hikina - " "
Komohana - " "
This land is within the awarded land of John Kellit

Apana 2
Hema - Kula Konohiki
Akau - ' '
Hikina - " "
Komohana - " "

Apana 3
Same as above

Apana 4
Hema - Aina of Paaiki
Akau - Konohiki
Hikina - Kahuna
Komohana - Kaupulehu is the name

From Kalakala's parents is this house foundation, there are many orange trees here now, however, Kalakala's parents left this place before the trees were there. But it still is from the parents of Kalakala, from the time of Kaahumanu, I recall the oranges belonging to Kalakala.

The loi were inherited by them from the Konohiki in the year 1839, this is not contested at this time.

Sworn by Kalowakea
I have seen the land of Kalakala in as Kawainui has also stated.

LCA 10691 to Naiwi & Punonea

Naiwi & Punonea were awarded two parcels in Hanalei. ʻApana 2 is a his houselot in the ili of Nounou on the coast immediately south of the muliwai of Hanalei River.

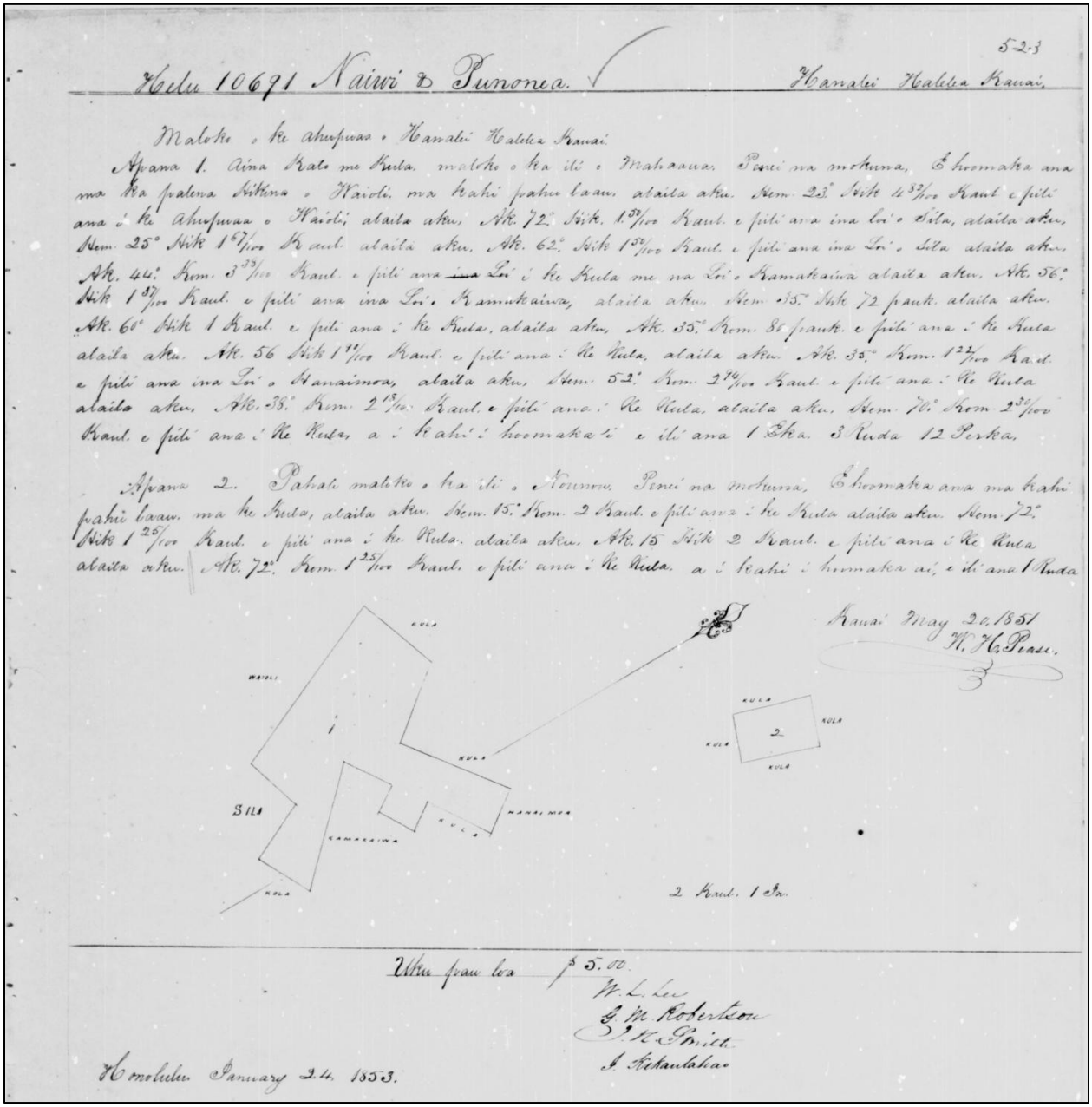
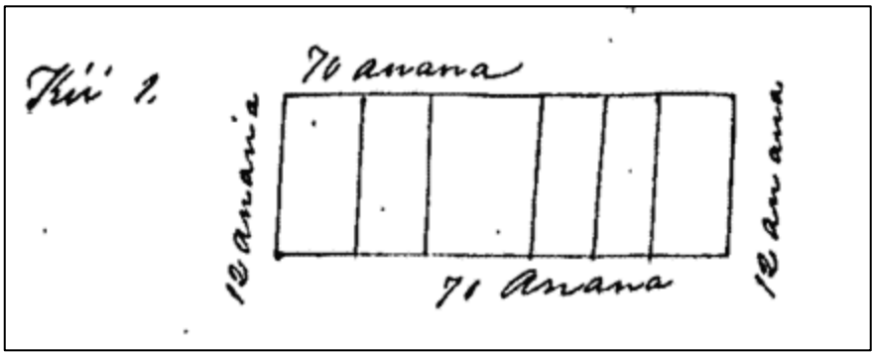


Figure 16. Land Commission Award 10691 to Naiwi & Punonea, Buke Mahele vol.8 p523.

Native Register 10691, Naiwi & Punonea vol.9 p.19-20

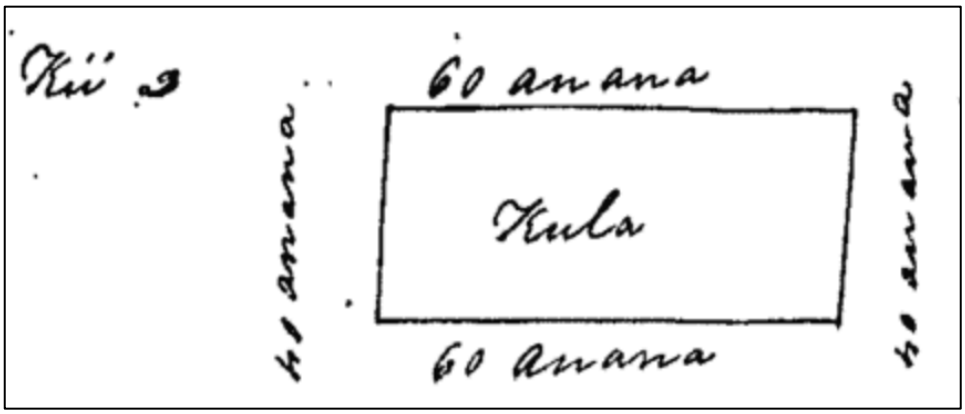
Auhea oukou i ka poʻe Hoona Kuleana, aloha oukou. O wau o Hale Punonea kahi kona ka Hawaii. Aia ma Hanalei, Kauai. Eia ke hoakaka aku nei au i koʻu wahi kuleana. E nana iho i ke kii.

Kii 1



Eia ke anana; no ka aoao hookahi, 70 anana ka loa o pela kahi aoao, he 12 anana kahi aoao, na ka laula, a pela no kahi aoao. Eono nae loi ai ma loko.

Kii 2

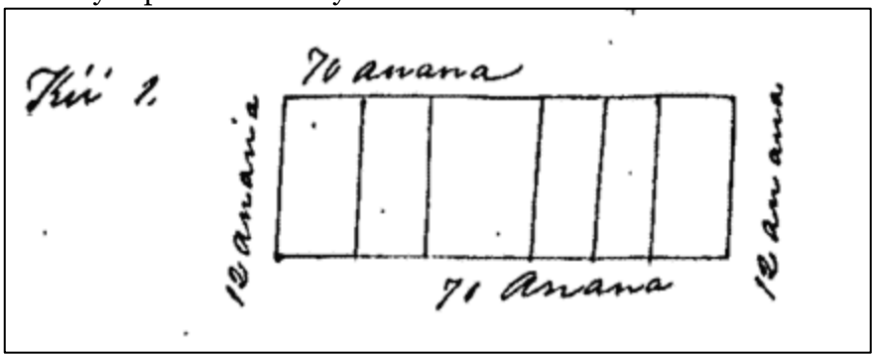


He wahi kula keia. He wahi kanu. Eia ka loa 60 anana, ka loa a pela no kahi aoao. 40 anana ka laula pela no kahi aoao. Ua komo nae ka auwai o ka wahi o kela laau, keia laau i loko o ua wahi kanu la. Aole nae he wahi pahale.

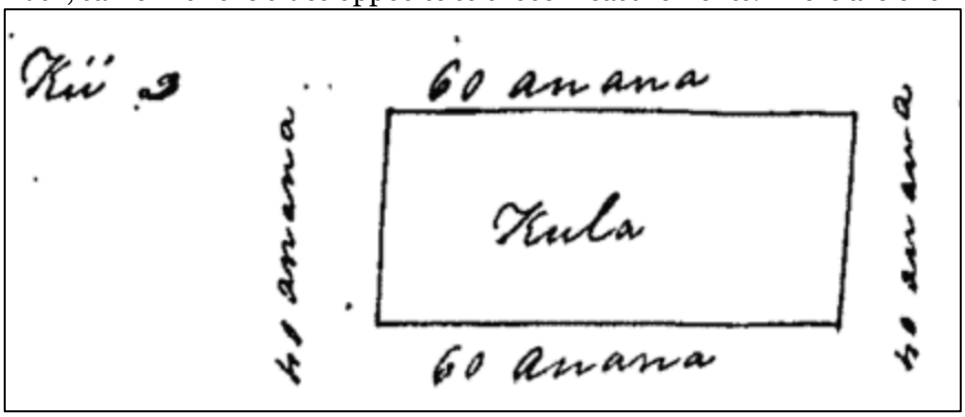
No kekahi aku nae ia
Na Hale Punonea.

Hanalei Kauai
26 Ianuali 1848

Aloha to you, the boundary commissioners. I am Hale Punonea from Hawaii, at Hanalei, Kauaʻi. Here is my explanation of my kuleana.



Here is the measurement; on the first side, 70 anana is the length of one side, 12 anana is the width, same with the sides opposite to those measurements. There are 6 loʻi inside.



This is a field place, a place to plant. It is 60 anana on either side; 40 anana is the length of the width. The auwai enters from the east of this place and through [the loi], this is where these plants are planted. It is not a place containing a house.

Hale Punonea

Native Testimony 10691, vol.12 p.54

Punonea mea kuleana, O ke kuleana o keia kanaka o Punonea ua komo pu i loko o ko Naiwi kuleana, ma laila ua pau kona.

Waioli 20 February 1850
Kuleana of Naiwi

This is being sworn to Namauu and before Ioane, with contestation, and confirmation, and said as such. I bear witness to the official document of which Naiwi provided to the claimant, as such, he has sworn.

*Sworn by **Mareko***

Helu 10691
I have seen the lands of Naiwi, apana 1 is a pahale, apana 2 a kalo land with 9 loi in the kula lands at Maahana in Hanalei.

Apana 1
Hema - Kula Konohiki
Akau - " "
Hikina - " "
Komohana - " "

Apana 2
Hema - Pali of Pooamau
Akau - Palena of Waioli
Hikina - Kula Konohiki
Komohana – Land of Namauu

From Kalihi to this land came Naiwi in the year 1849, like a neighbor Naiwi was living peacefully. In the year 1848, Naiwi passed, leaving the land to their child, their inheritor.

*Sworn by **Namauu***

I have seen the land of Naiwi, just as Mareko has said.

The kuleana of Punonea, the kuleana of this person is included with Naiwi's kuleana. Therefore, that is all.

LCA 10915 to S. E. Uloa

In 1848, Uloa filed a Native Register claim for their house lot (NR:v9, p325). Native Testimony supporting Uloa's claim was issued by Mareko and Keaweikeaouli (NT:v12, p36-37) in 1850. Mareko states that the pā hale is within the first ʻāpana, while the 3 loʻi that Uloa has are within their second apana in Waioli.

Uloa was awarded two parcels, ʻāpana 1 is in Waiʻoli Ahupuaʻa and ʻāpana 2 is his houselot on the ili of Nounou, in Hanalei Ahupuaʻa on the coast immediately south of the muliwai of Hanalei River (Figure 17).

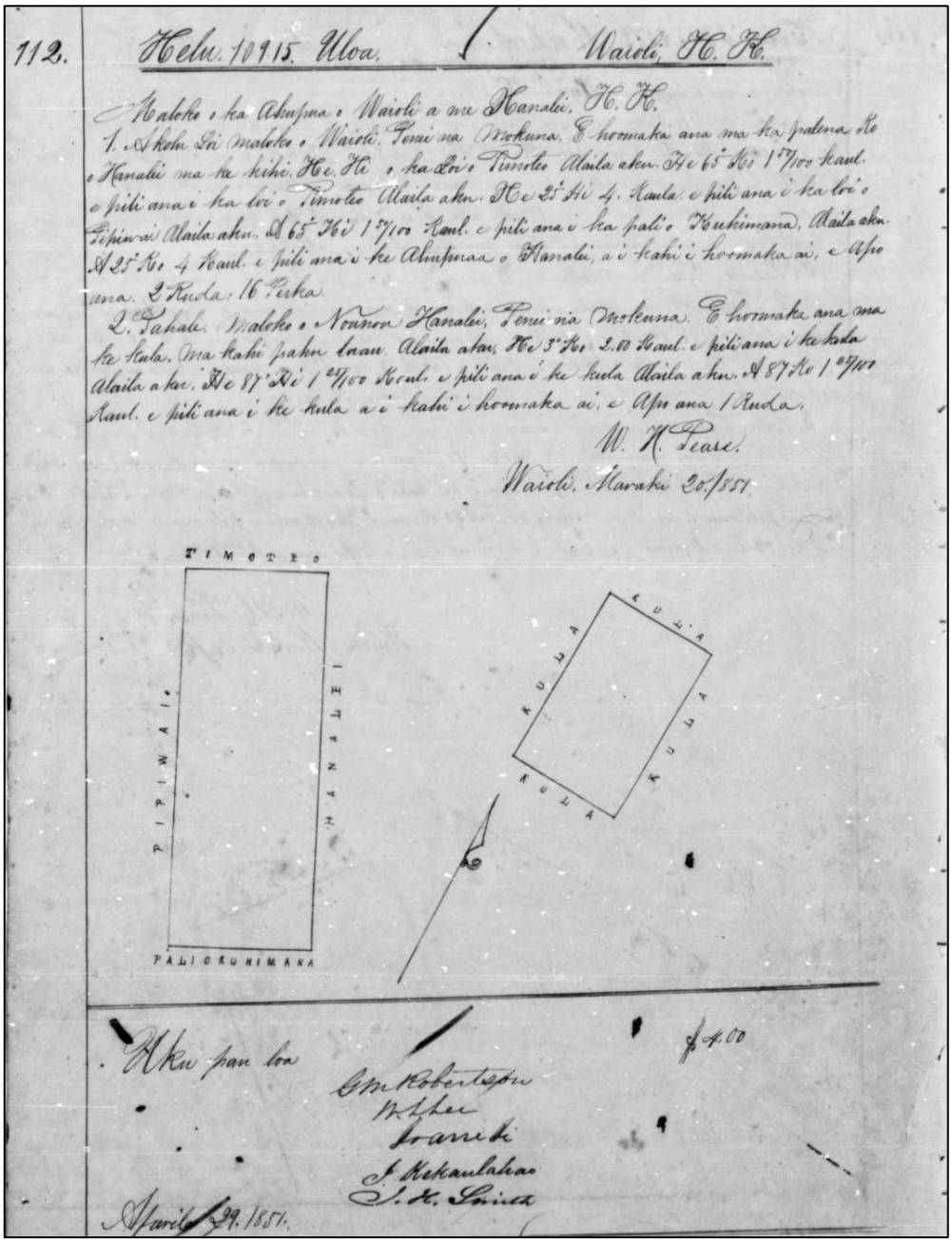
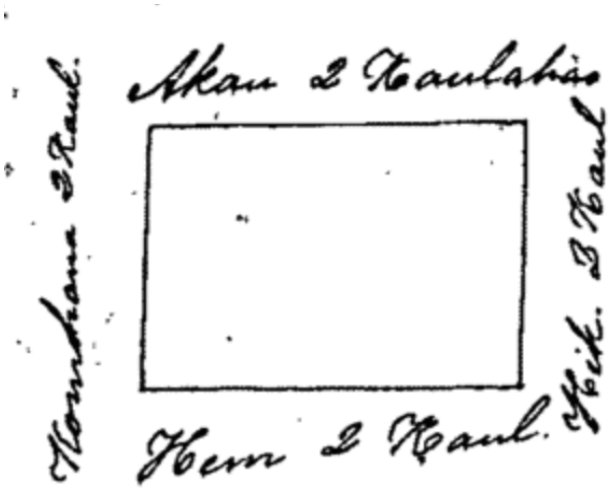


Figure 17. Land Commission Award 10915 to Uloa, Buke Mahele vol.4 p112.

Native Register 10915, Uloa, vol.9 p.325

S. E. Uloa Waioli, Kauai. 25 Ianuali 1848

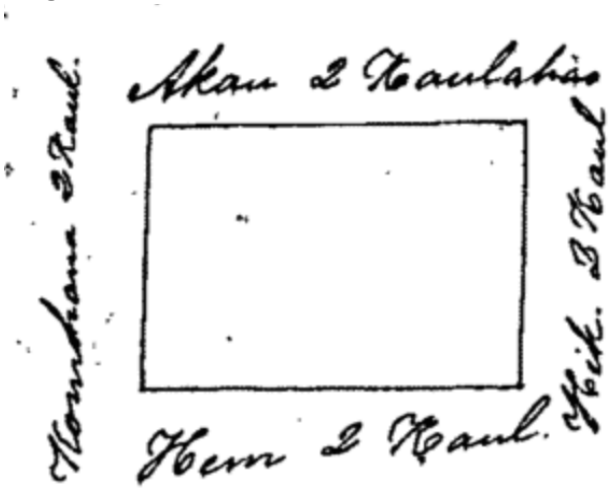
E na Luna Hoona Kuleana Aina. Aloha oukou. O wau o Uloa kekahi mea pahale, ke hoakaka aku nei au ia oukou i ka nui o na kaulahao. O ke anapuni o ka pa 8 Kaulahao ka loa. He hoakaaka aku nei au i ka loa me ka laula. Eia ka loa 2 Kaulahao, o ka laula 2 Kaulahao. E nana i ke kii ma lalo.



O wau ka oukou kauwa liilii,
Na S. E. Uloa

Waioli, Kauai. January 25, 1848

Land Commissioners, aloha to you. I am Uloa, here is my pahale, I will explain to you the measurement in chains. The boundary of the pa is 8 chains in length. I explain the width and the length; the length is 2 chains, and the width is 2 chains. Look at the picture below.



Your humble servant,
By S.E. Uloa

Native Testimony 10915, Uloa, vol.12 p.36-37

Waioli 16 Feb, 1850
Uloa mea kuleana
Hoohikiia o Mareko

Ua ike no au i ka pa hale o Uloa ma Hanalei, a me na loi ekolu ma Waioli, a o ka pahale ka apana 1, a me na loi 3, apana 2.

Apana 2, 3 loi
(directional, possibly Hema or hikina) - Pali o Kuhimana
Akau - Aina o Pipiwai
(other directional, same as above) - Aina o Timoteo
Komohana - Mahaaua

Ua loaa i ka apana 1 ia Uloa i ka M. Sd. 1844, a o ma loi ua loaa i ka M. Sd. 1848, no ka lilo ana o kona aina i ka haole ma Limamui? (Limuimui, Limumui, hard to tell); Hanalei, no laila ai oia i ka aina ma Waioli

Hoohikiia i Keawekeaouli
Ua ike au i ka Pahale o Uloa ma Hanalei, a me na loʻi ekolu ma Waioli, e like no me ka Mareko i hai mai nei.

February 16, 1850
Sworn by Mareko

I have seen the pa hale of Uloa in Hanalei, and the 3 loi in Waioli, the pahale is within the first apana, and the three loi in apana 2.

...Uloa inherited the first apana in the year 1844, and inherited the loi in the year 1848. It was transformed due to the foreigner at Limamui, Hanalei, therefore, he is at Waioli instead.

Sworn by Keaweikeaouli

I have seen the pa hale of Uloa in Hanalei, and the 3 loʻi in Waioli, just as Mareko has stated.

In 1846, John Brusseau made a very early Land Commission claim to who he called “the commissioners for quieting land tites” (Foreign Testimony vol.1p.685). Brosseau claimed one parcel on the bank of Hanalei River, at the muliwai, in the current study area. His claim includes the site of the original Hanalei Canoe Club, what is now the Na Molokama Canoe Club, as well as a portion of the overflow parkinglot. The claim is for his home.

In the claim process we learn the konohiki is Kalili, who is under Haalilio, who is the alii for the valley. The ili is Opukahi.

Unlike kuleana land claims, Brosseau, through his claim shows how foreigners familiar with private land tenure were quick to jump at claiming land and were savvy with the system for claims, testimonies, and soliciting exemptions. There are discrepancies between Brosseau‘s claim, and the actual testimony which the Land Commission Award itslef clarifies in detail. The Land Commission Board in fact explains in the LCA that they would deny this claim as Brosseau failed to prove he was actually given the land, however, the King intervenes through his agent John Ii and Brosseau is awarde Land Commission Award 52.

LCA 52 to John Brosseau, vol. p.156, 172-174

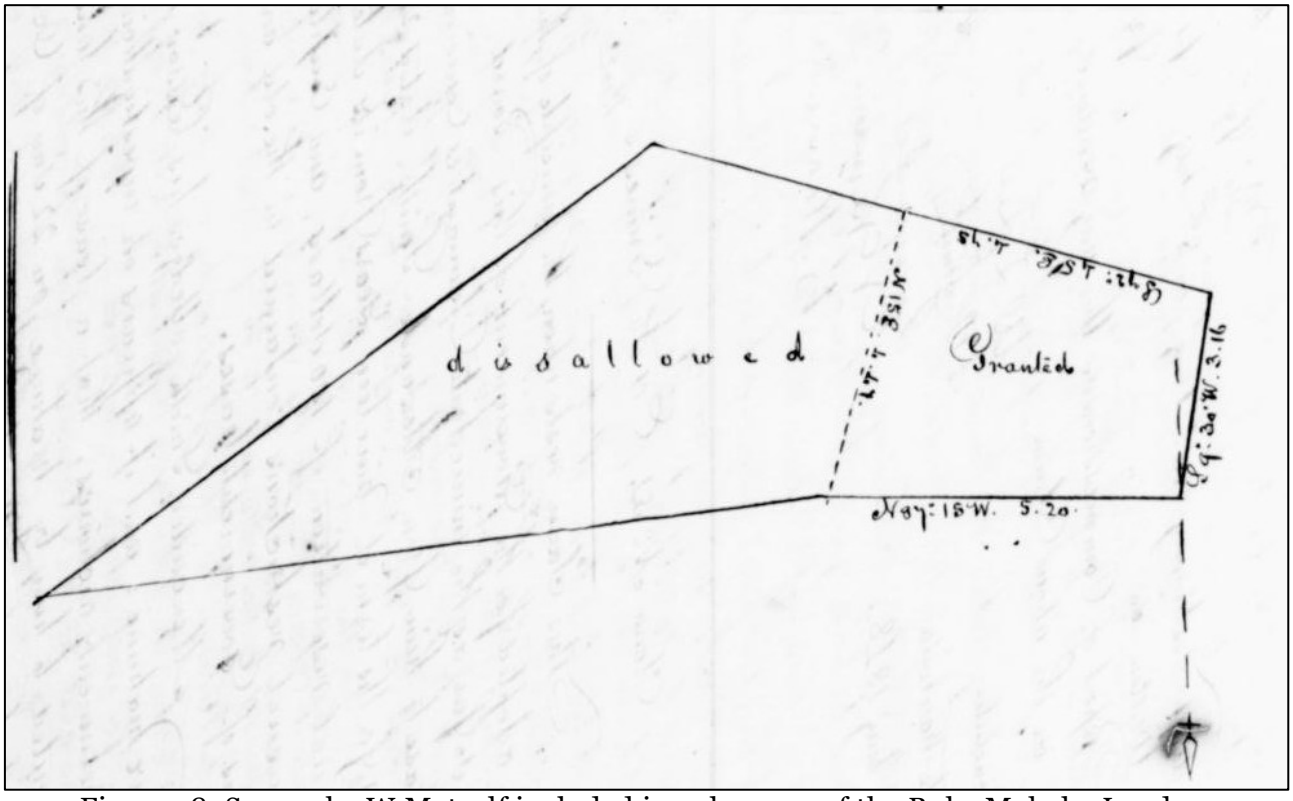


Figure 18. Survey by W.Metcalf included in vol.1p.174 of the Buke Mahele, Land Commission Award 52, to John Brosseau

...The above mentioned land is not particularized by th eClaimant in his statement, also its locality, but by the concurrent survey of Metcalf attached we find it described as "John Brosseau's lot in Opukahi, Hanalei, Kauai," which he estimates upon measurement (as stated) as including an area of "5 acres, 135 rods" and after making a distinct survey of "lot Enclosing John Brosseau's dwelling house" he [Metcalf] estimates said lot and an area of "1 acre, 138 rods."

The Claimant further states that he has built upon the land, and is anxious to obtain a life estate in which to prevent his being dispossessed or molested. There is no precise time elicited by the testimony, when the land first became occupied by the Claimant. W. Judd, in his testimony before the Board on the 8th July 1846 says "Kalili did not acknowledge to me he had given to Claimant the land in question and it was not certain that the land belonged to Kalili; but he (witness) advised him to let Claimant remain."

As no testimony has been produced before this Board to establish either the gift, or he right of Kalili to the land, beyond that of konohiki under Haalilio, to whom, the testimony on record before us in another Claim No44 ascribes the undoubted proprietorship of the entire valley, from whom it has descended by title to his present majesty, in whom the title originally resided We are compelled by the rules of adjudication for the guidance of the Board, to negative the present claim: at the same time by a special favor conferred by his Majesty to the present Claimant, and made known to this Board by one of its members Mr. John Ii who was deputed by vote to apply to the King for instructions in the case—We are empowered to award to the Claimant John Brosseau a life estate in the "lot enclosing his dwelling house," and described by survey as follows...

Hanalei Ap.27.1846

Foreign Register 52, vol1 p.65.

...land was granted or given to you petitioner by one Kalili, conohiekei [sic konohiki] of said land, and the before mentioned Kalili acknowledged such gifted said land of five acres and one hundred thirty five rods tosaid petitioner in the presence of his excellency G.P. Judd. Furthermore the lot of land aabove mentioned having been built upon at the expence of your petitioner and at his expence having been surveyed by W. Metcalf beforementioned and a copy of such survey being enclosed with this petition for the information of such board of commissioners. Your petitioner begs his claim to such lot of land to be brought under consideration at the first opportunity; and if approved a patent for life granted to him by your board to prevent his being disenfranchised or molested by any person wahtsoever....

Signed John Brofseau

Foreign Testimony 52,vol.1p.52

John Brofseau. Claim 52
July 8
Doctor Judd. Witness sworn -deposed- Kalili did acknowledge he had given to Claimant the land in question, but Witness advised Kalili not to remove the man, but to let him remain for the present, as it was not certain that the land belonged to himself.

Crown Land Hanalei

The Crown lands were established by the Mahele of 1848, as part of the Mōʻīʻs 1/3rd of all of Hawaiʻi lands, which were originally the lands of the King. On June 7th, 1848, "An Act Relating to the Lands of His Majesty the King and of the Government,"[2] established the Crown lands as the personal property of the Mōʻī, and as separate from the public domain – government lands.

During the rule of the Hawaiian Kingdom, which formally lasted for more than ½ a century, the crown lands were treated as separate from the Government body of lands, the government lands being used to run the government.

The Ahupuaa of Hanalei, excepting kuleana, was named as Crown land during the Mahele.

Kamehameha Deeds Hanalei

From 1848 to 1865 portions of the Crown lands were exchanged, mortgaged and sold by Kamehameha III & IV. These sales and exchanges were recorded by the Minister of the Interior much as Royal Patents (Grants sold from the Government body of lands) and were commonly known as Kamehameha Deeds.[3] Lands Deeded by Kamehameha include parcels (on the islands of Kauaʻi, Oʻahu, Maui, and Hawaiʻi) in valued and renowned places, such as Hanalei.

Kamehameha IV would deed six large parcels in Hanalei, stretching from the valley up to Puu Pehu, totalling XX acres. All deeds went to foreigners. Kamehemeha also interceded with the Land Commission Board, as the party with title, to award LCA 52 to John Brosseau (in the study area).

Table 2. Kamehameha Deeds in Hanalei, source RM1833 and LCApp1160 Map 2.

Named Grantee	Liber, page	Acreage	Notes	ʻĀpana
Johnson, Edward & Wilcox, Abner	Vol.9 p271	34	Kamehameha IV May 29, 1857	1
Johnson, E.	Col.16 p.195	10	Kamehameha IV to E. Johnson, 10 acres	
Merritt, J.	Vol.8 p.25	778	Kamehameha IV to J. Merrit, for 77.76 acres in Liber.8 pg.275.	
Titcomb, C.	Vol.7 p.284	626	Deed Kamehameha IV, Feb 12, 1856. Includes por. Nukuhuluia Stream hoʻi into Hanalei River(LCApp1160-2)	1
Titcomb, C.	Vol.10 p.521	140	Kamehameha IV. RM1833 shows C.Titcom [sic] to R.C.Qyllie, Lib.16 pp.215, 216 & 217."	2
Titcomb, C.	Vol.7 p.284	7	Deed Kamehameha IV, Feb 12, 1856. Kanoa Pond, ʻauwai & stream por. (LCApp1160-2)	3
Titicomb, Chas.	Vol.7 p28, vol.16 p.215		Per LCApp1160-2: "Deed: Kamehameha IV to Chas. Titicomb, Ap.4 Lib.7, p.284 Feb. 12, 1856." Per RM1833: "Kam IV to Titicomb. Titicomb to Wyllie Ap.4 Lib.16 p.215."	4
Wyllie, R. C.	vol.5 p.415-6	750.3	Kamehemeha III to R.C. Wyllie	

[2] An Act Relating to the Lands of His Majesty the King and of the Government, 1848.
[3] See Robert King's, *Hawaiian Land Titles*, included in Chapter 5 of the1st Progress Report of the Territorial Planning Board: "An Historic Inventory of the Physical, Social and Economic and Industrial Resources of the Territory of Hawaii, 1939. Robert D. King was the Principal Cadastral Engineer in the Territorial Land Office.

Many of these Crown lands, deeded to Ranching and foreign agricultural interests in the 1830s – 1850s were expanded after the overthrow of 1893, after the Land Act was quickly passed in 1894 to allow non-citizens unprecedented access to previousl protected lands in the Crown Inventory; including the remaining government lands of Hanalei Ahupua‘a.

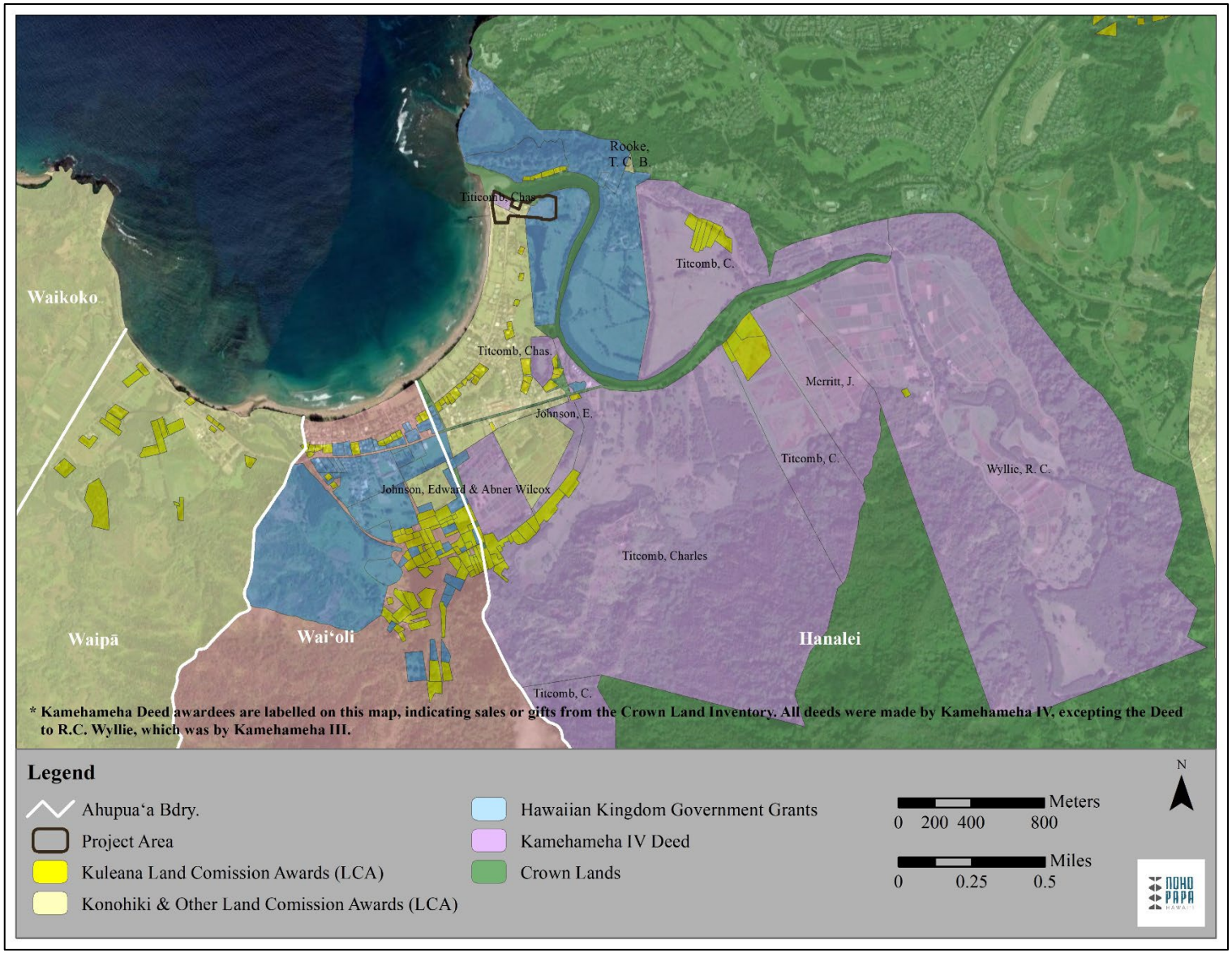


Figure 19. Map depicting Māhele era land divisions, including the distribution of Kamehameha IV Deeds, in purple, in relation to the study area. The larger green area on the right of the map is crown lands that were inalienable from 1865, up until foreign business interests overthrew the government in 1893 and passed the Land Act allowing their sale in 1894; Puʻu Pehu Plateau, now Princeville, was acquired very soon after.

Crown Land Commission

Although the Sovereign retained management rights over the Crown lands (1848-1893), in 1865 the ability of the monarchs to sell lands in the Crown inventory ended under Kamehameha V. On January 3rd, 1865 Lot Kapuāiwa passed an Act to "relieve the royal domain from encumbrances and to render the same inalienable."[4]

This Act meant Crown lands could not be sold or transferred, and were protected from possible gifting, mismanagement or adverse possession. Additionally the 1865 Act set up a Commission of Crown Lands with three commissioners, whose purpose was to manage the Crown Lands & their leases.

> The Crown Lands cannot be alienated in fee but can only be obtained by lease for a term of years not to exceed thirty; authority to lease the said lands being vested in a Board of Commissioners consisting of three members, two of whom shall be appointed from the Executive Council and the other to act as Land Agent. [Iaukea 1894: p5]

C.P Iaukea was the appointed Agent of Crown Lands for the Kingdom of Hawai'i, and the author of the only "Biennial Report of the Comissioners of Crown Lands," published in 1894. In January of 1893, the soveregin nation of Hawai'i was overthrown by a handful of American Businessmen assisted by the American navy. The Hawaiian Queen, Liliu'okalani was imprisioned. One year later, in 1894, the Provisional Government passed the Land Act, which dissolved all protections for crown lands from alienation. The land act also merged the government and crown bodies of land together, re-naming them "public lands." As a result of the Land Act of 1894, for the first time in over ½ a century, crown lands became alienable and actively "for sale." Sales in fact, rapidly occurred, mostly to large plantations, foreigners, and business interests. This very distilled summary can be found discussed in great scholarly detail by John Van Dyke, in his book *Who Owns the Crown Lands of Hawai'i?* (2008), and numerous theses and dissertations.

In Hanalei, 1893-4 , (~time of the overthrow) there were 16,400 acres of Hanalei's crown lands, under lease (this would have included the Puupehu plateau, now Princeville). Leases were set to expire in 1906, annual rents totaled around $1,179, and the estimated land value at the time was $45,000. A brief note from the Crown Land Agent, Iaukea, noted "About 900 acres cane land. Valuable fishery. Good grazing" (Iaukea 1894:38). Iaukea expanded on his summary of Hanalei crown lands,

> Kauai Island
>
> Hanalei. – Hanalei was once a flourishing little settlement during the prosperous year of the Princeville Plantation co., but now the cane lands in the valley have been mostly converted into rice fields. The land of Hanalei in the district of Halelea, comprises an area of 16,400 acres, a large portion of which is wood land and about 800 acres cane land. Above, in the valley where a number of native families are residing, are extensive taro lands. Oranges and other tropical products grow well here. Quite a large portion might be made available for homesteads. The Hanalei river is the second largest on the island.

[4] An Act to relieve the royal domain from encumbrances and to render the same inalienable, 1865.

The weather is moist but healthy. Has a very good landing and a fine harbor where large vessels can safely lay. This land has extensive and valuable fisheries.

Iaukea 1894:p38

Table 3. Crown land in Hanalei from the Biennial Report of the Crown Land Commissioners (Iaukea 1894: p72 Table E)

District.	Name of Tract.	Area Acres.	No. of Lease.	Lease Expires.	Annual Rental.	Estimated Value	Remarks.
Halelea	Hanalei	16,400	------	1906	1,179	45,000	About 800 acres cane land. Valuable fishery. Good grazing.

After the above table is presented by Ikauea of the crown land holdings in Hanalei (Iaukea 1894: p72 Table E)), there is a brief summary provided, indicating that the crown land acreage in Hanalei, at this time, made up almost 11% of all Crown lands on Kauaʻi Island.

Note: --Total area Crown Lands on Kauai 154,636 acres.

The total area of the Crown Lands at this date is, approximately, 971,468 acres, distributed by Islands as follows: -- Hawaii, 642,852; Maui, 69,121; Molokai, 20,892; Lanai, 17,369; Oahu, 66,593 and Kauai, 154,636.

Iaukea 1893:p73 notes on Table E

In the rent roles of the *Biennial Report of the Commissioners of Crown Lands* (Iaukea 1895:p74-82 Table F) Leasees on Crown lands are reported on. Table 4, below includes the rent roles from the 1894 Iaukea report as well as additional Hanalei Crown Land Commission leases found in the bureau of conveyances,

Table 4. Crown land leases in Hanalei

Present Lessee	Name of Land	Locality	No. of Lease	Date of Lease	Term of Years	Annual Rental	Bureau of Conveyance Document ID
Kellett, D. P.	Lot at Hanalei	Kauai	10	July 24, 1854	50	$ 29	----------
Castle & Cooke Agts.		Hanalei		July 1, 1872			Bk36 p152-153
Wilcox, A. S. Agts of		Hanalei		July 1, 1872			Bk36 p152-153
Makaliu, David et al		Hanalei		1879			Bk 60 p134
Princeville Plantation	Puupehu	Hanalei	97	Jan. 1, 1886	20	$ 800	Bk 100 p8
Wundenberg (Hui Agent)	Hanalei	Kauai	153	Feb. 1, 1889	15	$ 750	Bk 144 pp176-180
Princeville P. Co.	Land at Hanalei	Kauai	154	July 1, 1889	16	$ 100	Bk117 p370

Table F of Biennial Repot of the Crown Land Commissioners reports on Crown Land lease revenue (Iaukea, May 1, 1894), and is followed by the summary:

> The foregoing statement shows all existing Leases issued by the Commissioners under the ordinary and usual form of Crown Land Lease, and from which the present Revenue is derived.

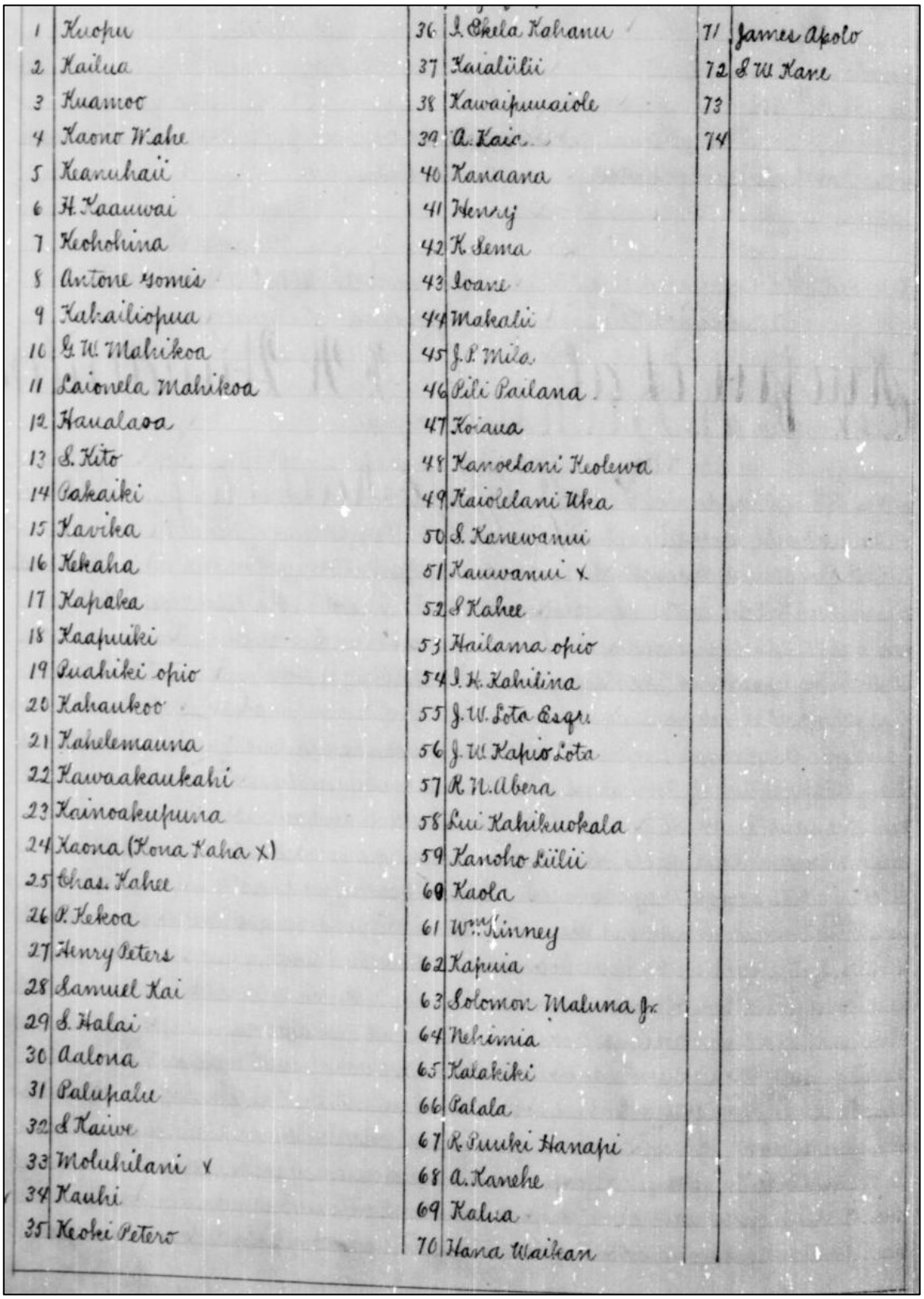
The name Wundenberg, appears in legal documents (see Table 4), Frederick W. Wunderberg was acting as a Trustee "for and on behalf of a hui of Natives in Hanalei…" (Bureau of Conveyance 1893: Book144 pp176-180, July 23, 1889). This hui of Hanalei ʻohana co-managed land along the Hanalei River under formal Crown lease. More about this is discussed in the later section *The Hui Hoolimalima Aina Lei Alii of Hanalei*.

The Hui Hoolimalima Aina Lei Alii of Hanalei

Hui or Native Hawaiian Associations were a very Hawaiian method of negotiating the new western land tenure system introduced in Hawaiʻi with the advent of the Kuleana Act and the Māhele. Since less than 1% of land in all of Hawaiʻi was awarded to the makaʻāināna during the Māhele, communities in areas with foreign pressures quickly took up a hui system to secure their community's space by ensuring they had agency to care for the ʻāina and resources integral to their traditions and practices. Native Hawaiian Hui bought land through Government Grants, from konohiki or large foreign land owners. The Hāʻena Hui is looked at in detail in Carlos Andrade's Book *Hāʻena: Through the Eyes of the Ancestors* (2009), where he also touches upon the Wainiha Hui, also in Haleleʻa Moku. Moloaʻa, an ahupuaʻa in neighboring Koʻolau Moku was another place with a well-known Hui, whose lands are depicted on Hawaiʻi State Register Maps, as was the Wainiha Hui lands.

However, it was little or perhaps completely unknown that there was an organized hui in Hanalei; likely because the land they negotiated their lease on was part of the Crown inventory. Land in Hanalei was mostly Crown land after the Māhele, and in 1889, at the time of the Hui Hoolimalima Aina Lei Alii of Hanalei, Crown lands were inalienable, protected by the Kingdom. It was an intelligent move for the Hawaiian families of Hanalei to collectively lease these Crown lands, and set about securing fishing and farming traditions and rights through a Crown lease. This Hui was intentional; they had a trustee and an agent and filed documents with the Bureau of Conveyances to secure their legal status. Unfortunately, within 4 years the Hawaiian Kingdom was overthrown by American businessmen, with assistance from the American Navy. The new Provisional Government coveted the inalienable Crown lands and one of their first Acts, the Land Act of 1894, rendered Crown land alienable and merged the Government and Crown body of lands into what they would call the Public Lands. Almost immediately, in 1895, they began selling from the Crown inventory, where many large plantation owners had leased land. It was likely the Hanalei Huiʻs lease was severed or left un-renewed.

The Hui Hoolimalima Aina Lei Alii of Hanalei was a Hui, or Native Hawaiian Association, which leased their lands from the Crown Land Commissioners in 1889, "…all of the unleased and unsold portion of the Ahupuaa of Hanalei in said Island of Kauai…" for the annual amount of $1,230. This amount was paid collectively by the 72 hui members. The Crown land lease was brokered by the Hui's trustee, Frederick "Fred" W. Wundenberg, whereby the Hui was granted a 15-year lease by the Crown Land Commission (Bureau of Conveyance 1889: bk144 p176-180). John M. Radway was the Agent for the Hanalei Hui just as F.W. Wundenberg was its Trustee. When the hui filed with the bureau of Conveyances a power of attorney for their trustee F.W. Wundenberg, all 72 hui members were named (**Error! Reference source not found.**).



1 Kuopu
2 Kailua
3 Kuamoo
4 Kaono Wahe
5 Keanuhaii
6 H. Kaauwai
7 Keoholina
8 Antone Gomes
9 Kukailiopua
10 G. W. Mahikoa
11 Laionela Mahikoa
12 Hanalaoa
13 S. Kito
14 Kakaiki
15 Kaviha
16 Kekaha
17 Kapaka
18 Kaapuiki
19 Puahiki opio
20 Kahaukoo
21 Kahelemauna
22 Kawaakaukahi
23 Kainoakupuna
24 Kaona (Kona Kaha X)
25 Chas. Kahee
26 P. Kekoa
27 Henry Peters
28 Samuel Kai
29 S. Halai
30 Aalona
31 Palupalu
32 S Kaiwe
33 Molulilani X
34 Kauhi
35 Keoki Petero
36 L. Ekela Kahanu
37 Kaialiilii
38 Kawaipunaiole
39 A. Kaic
40 Kanaana
41 Henry
42 K. Lema
43 Ioane
44 Makalii
45 J. L. Milo
46 Lili Pailana
47 Koiana
48 Kanoelani Keolewa
49 Kaiolelani Uka
50 S. Kanewanui
51 Kauwanui X
52 S Kahee
53 Hailama opio
54 I. K. Kahilina
55 J. W. Lota Esqr.
56 J. W. Kapio Lota
57 R. N. Abera
58 Lui Kahikuokala
59 Kanoho Liilii
60 Kaola
61 Wm Kinney
62 Kapuia
63 Solomon Maluna Jr.
64 Nehimia
65 Kalakiki
66 Palala
67 K. Puuki Hanapi
68 A. Kanehe
69 Kalua
70 Hana Waikan
71 James Apolo
72 S W Kane
73
74

Figure 20. A list of the 72 members of the Hui Hoolimalima Aina Lei Alii of Hanalei, who retained fishing rights to the Hanalei River in 1889(Bureau of Conveyance 1889:bk116p343).

In addition to naming the ʻohana involved, the document permits "the Princeville Plantation Company a right to conduct water over such leased land as said company is now doing;" however these savvy kanakas made sure a critical clause was included,

> "...on condition that said company secure to us or to our said trustee the exclusive rights of fishing in the Hanalei river or for such other consideration as our trustee shall think proper..." (Bureu of Conveyances 1889: bk116 p344)

The Hui, while documenting a smaller lease to Charles Koelling (Bureau of Conveyance 1889: bk128 p231-232) was where they identified their full name, as "the Hui Hoolimalima aina Lei Alii of Hanalei Kauai"

Table 5. Bureau of Conveyance Recordation from 1877-1890 listing the Hanalei Hui as a party.

Grantee	Grantor	Kind of Instrument	Date of Instrument	Book	Page	Date of Record
F.W. Wundenberg	Kuopu et al (Hanalei Hui)	Power of Attny	Apr 10, 1889	116	343-345	Aug. 26, 1889
F.Wundenberg - Hanalei Hui, Tr. Of	Crown Lands, Comrs. Of	Lease	July 23, 1889	144	176-180	Oct. 23, 1893
Hanalei Hui	C.Koelling by Trustee	Lease	May 24, 1889	128	231	Dec 1, 1890
Hanalei Hui	C. Koelling by agent	Lease	Nov. 19,1890	128	233	Dec 1, 1890
Lonahai	Hanalei Hui Land by trustee	Lease	Sep. 1, 1889	156	50	Jun. 29, 1895

Descendants of this hui still live, farm kalo and work in Hanalei today. Some of their descendants still fish the river, paddle for Hanalei Canoe Club and surf at the muliwai. Several of the descendants of this hui participated in the consultation portion of this study.

Early Historical Period

Hanalei was a population center supported by extensive loʻi (irrigated field systems) as well as the eastern terminus of a prime *wauke* cultivation zone (Handy, Handy, and Pukui 1972/1991:269, 209). Its abundance meant Hanalei also periodically served as a chiefly center (Handy, Handy, and Pukui 1972/1991:269, 287). Bishop Museum research affiliates E.S. Craighill Handy and Elizabeth Handy, and esteemed Hawaiian ethnographer Mary Kawena Pukui describe the land division of Hanalei as possessing a "fine broad stream… extensive seaward valley bottom and delta area," that made it ideal for kalo (taro) cultivation (Handy, Handy, and Pukui 1972/1991:394). Ridgeline trail systems aligned mauka-makai allowed movement and access to varied resources for populations living in the mountains and those in the makai lowlands of Hanalei (Handy, Handy, and Pukui 1972/1991:398).

Writing in the latter nineteenth century, prolific Kānaka ʻŌiwi scholar and historian Samuel Mānaiakalani Kamakau recollects historical events associated with Hanalei and the arrival of foreigners in Hawaiʻi. Kamakau writes of Kamehameha dispatching a mixture of war canoes and Western-style ships to confront a Russian "man-o-war" that was anchored in waters off Oʻahu and intent on taking the archipelago. The Hawaiian battalion forced the Russians to retreat to Kauaʻi where they took refuge in forts constructed at Waimea and Hanalei (Kamakau 2022:365). Writing of the time of Kauaʻi ruling chief Kaumualiʻi's death in **1824**, Kamakau states:

> Ka-lani-moku now sailed to Kauai to proclaim the will of the dead chief and settle government affairs and land disputes. But he landed first at Hanalei in order to have [men] dive for the bell and anchor which had been sunk when Liholiho's ship, Haʻaheo, went ashore off that coast, and he did not sail until evening for Waimea.
> (Kamakau 1961/1992:266)

Purchased with "8,000 piculs of sandalwood" at Lahaina in **1820**, Liholiho's private luxury yacht was "[a] 191-ton hermaphrodite brig with a length of 85 feet at the waterline, and a 23 foot-beam, built in Salem, Massachusetts…" (Mills 2023:103). Notes contemporary archaeologist Peter Mills of the ship: "Liholiho used it as his primary means of transportation in most cases. In 1821, *Cleopatra's Barge*[5] sailed to Kauaʻi several times during Liholiho's extended meetings and island tour with King Kaumualiʻi," (Mills 2023:104). Relics collected from *Cleopatra's Barge* are now on display at the Kauaʻi Museum in Līhuʻe.

Foreign and Missionary Arrivals

ABCFM

The American Board of Commissioners for Foreign Missions (ABCFM) arrived in Hawaiʻi and on Kauaʻi from **1820** through **1863**, and in the **1870s** and **1880s** (Benedetto 2024:1). Throughout the archipelago, Hawaiians held critical roles in these efforts as sponsors, permissive leaders, proselytizers, translators, and cultural guides (Benedetto 2024:2). Contemporary church historian Robert Benedetto writes that Hawaiian and Polynesian converts "made a great impression on Hawaiʻi's rulers, and thus on the founding of their churches," (Benedetto 2024:2). Benedetto describes the mission stations established to anchor the effort:

---

[5] Liholiho's ship was alternatively known as Moku Haʻaheo or Haʻaheo o Hawaiʻi (Mills 2023:105).

> The first churches that Native Hawaiians experienced were those located on mission stations, operated by the American Board through its Prudential Committee in Boston, and under the local control of a Hawaiian Association composed of missionary pastors, that is, foreign ministers in Hawai‘i. [Benedetto 2024:1]

Benedetto characterizes the nature of early mission stations as purposefully isolated from the Hawaiian communities they were located in:

> The missionary pastors were different from their hosts – separate from then in nationality, language, culture, and religious assumptions. Illustrative of this separateness were the stone walls these pastors built around their churches and mission houses. These walls were social barriers that separated the missionaries and their children from regular contact with Hawaiian society. The separateness of the mission would have far-reaching consequences and meant, among other things, that support from Hawai‘i’s ruling *ali‘i* was needed to go forward with their missionary enterprise. [Benedetto 2024:2]

Contemporary scholar and former executive director of the Hawaiian Mission Houses Historic Site and Archives Thomas Woods summarizes the changes brought about by these interactions and relationships:

> Collaboration between Native Hawaiians and the American Protestant missionaries resulted in, among other things, the introduction of Christianity, the development of a written Hawaiian language and establishment of schools that resulted in widespread literacy, the promulgation of the concept of constitutional government, the combination of Hawaiian with Western medicine, and the evolution of a new and distinctive musical tradition with harmony and choral singing. [Woods 2018:9]

Ethel M. Damon provides an account from the journal of a Mr.Gulick, “the Waimea missionary on his quarterly tour of the island” in **1829** (Damon 1931:323). Mr.Gulick was assisting another missionary, Mr. Whitney at the Waimea Protestat mission station. Ms. Damon describes Mr.Gulicks arrival in Hanalei,

> Mr.Gulick made his first attempt at preachign in the native language to some twleve hundred hearers… So dense was the population that the young mission worker thought three or four large congregations could be assembled along ht easterly and northerly shores of Kauai, if ministers could be had to supply them (Damon, 323-324).

In Hanalei, the Protestant mission station of Wai‘oli Church was established in **1834**, by Reverand William P. Alexander. In many of the early written accounts from mission correspondence or memoirs, like Ethel Damon‘s, the populace was made to sound open and inviting of the missionaries. Damon‘s account of Mr.Gulick‘s first sermon in Hanalei was that “The people told him they very much wished a kumu, or teacher, to live with them on that side of the island” (1931:323). Yet, the thatched building established by the mission was incinerated the same year it was raised, during tensions between community members and missionary and foreign arrivals, including the execution of a Hawaiian lua practitioner in Waimea (Benedetto 2024:149, 154).

Many discrepancies exist between early missionary written accounts, some of the only records of this time, and the actual relationships between kanaka and missonaries. Mission correspondence discussion of the natives in their parishes are often patriarchal in nature, contextualizing the people of the place as welcoming, childlike, and needing guidance.

One of the earliest written accounts of Waiʻoli, was in fact a Hawaiian nūpepa article in *No ke Emi Ana o Na Kanaka*, which was authored by W.P. Alexander himself, the Waiʻoli Mission founder (Research by Devin Forrest in Cordy & Merrin 2020:33-34). He was fluent in ʻōlelo Hawaiʻi and actively engaged with nūpepa, submitting articles, census reports; while journaling, corresponding and drafting mission reports. While Alexander controlled the narrative in many ways through his large body of early writing, he is a valuable contributor to early information about Waiʻoli, the ʻili of Manolau, and Hanalei.

> When Alexander arrived, he noted that the Waiʻoli's mission was "well supplied with fish, fowl, bananas and melon etc." A year after Alexander's arrival, an article expresses how lush and fertile the land in Waiʻoli is, as well as the ease with which everything grows due in part to the pure clean waters.[6]
>
> From the founding of the mission in 1834, letters, reports, and nūpepa articles continued to document the agricultural wonders of the people in Waiʻoli. In the early years of the mission, Alexander connected his property to the main stream through an ʻauwai system to water the crops on his homestead. These crops supplemented what he was receiving or trading with the Native population. [Cordy & Merrin 2020: 33].

At the Waiʻoli Church site, wooden buildings were erected sometime in the early 1840s (Benedetto 2024:149 Waiʻoli Church had satellite congregations in Kalalau and Kauhakake, location of a sacred kukui grove and chiefly meeting place (Benedetto 2024:5; Hughes 2018). As written by Benedetto:

> Hanalei was a promising site for a church. It had a good harbor and a population that had the potential to grow. It was also surrounded by fertile land. W. P. Alexander arrived from Waimea by double canoe and surveyed the site. *Kiaʻāina* Kaikioʻewa provided land for the church. *Aliʻi Nui* Deborah Kekaihaʻakūlou assisted the mission, and a trusted church member, Davida Papohaku (d. ca. 1843), corrected Alexander's sermons while he was learning the language. [Benedetto 2024:149]

The Waioli Mission eventually established a more permanent church and house site near the Waioli River, built in 1837 and 1841 during the time of Reverand Alexander (Damon 1931:326).

More about the history of Waiʻoli Church and Mission are available at the Kauaʻi Historic Society and with the caretakers of the Waiʻoli Mission.

An 1833 map of Kauaʻi copied from a surveyor's map by early nineteenth century missionary and cartographer Ursula Emerson shows the study area in Hanalei (Figure 21). While the ahupuaʻa is

[6] N. Keoahu, *Waioli Kauai Ian 23, 1835*, Ke Kumu Hawaii 15 April 1835.

not labeled on the map, it does show the wide mouth of the Hanalei River outletting into the sea and a trail tracing through the makai portion of
the current study area (Figure 22).



Figure 21. Portion of a 1833 Emerson map of Kauaʻi Island, showing Hanalei Bay at top center, the wide expanse of the Hanalei River is in the bay (top right), which is clearly intersected by a coastal trail system.



Figure 22. An 1833 map of Kauaʻi Island, by Ursula Emerson, depicting a river and coastal trail system in the study area, at top center is Hanalei Bay (Emerson 1833 in Fitzpatrick 1986: 107)

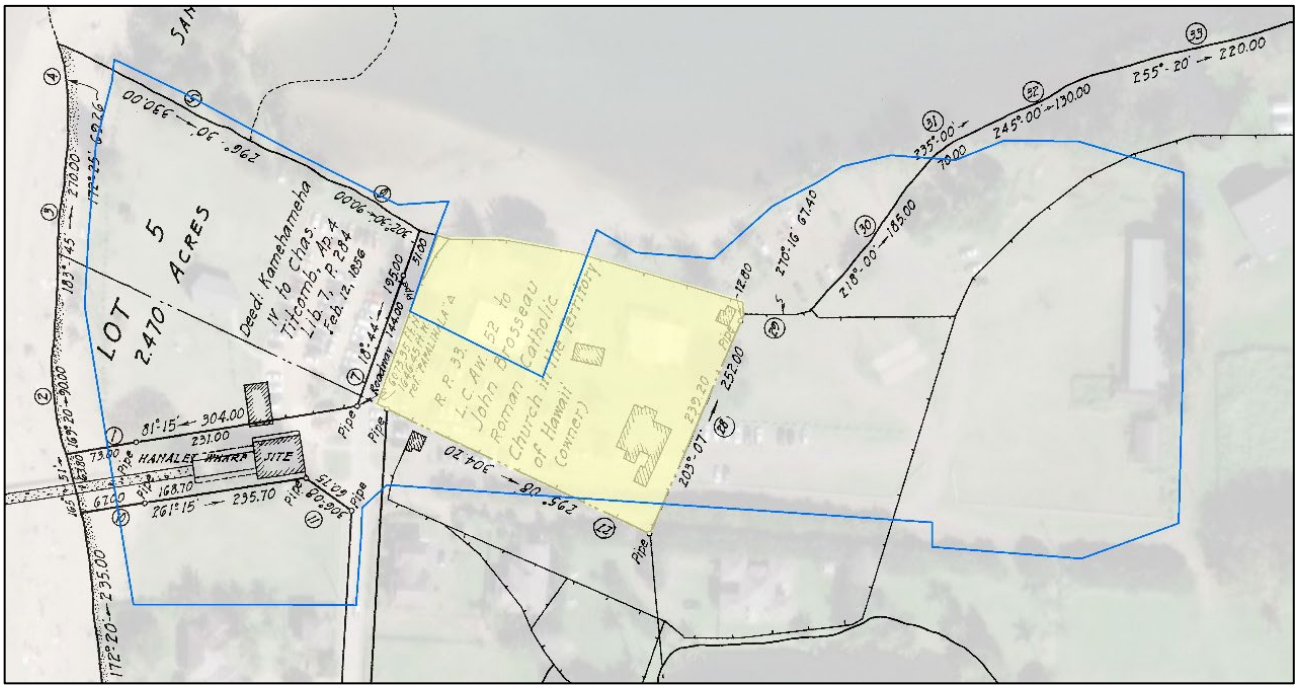
Saint Maxime Catholic Church

While the Protestant Church was the dominant foreign faith in the Hanalei Bay area, thanks to the early establishment and success of the Waiʻoli Mission. There has been a Catholic presence in Hanalei since **1864**; its origins starting within the project area. The first Catholic Church in Hanalei was Saint Maxime, and was located in the study area (Figure 23, Figure 24, Figure 25, Figure 26).

According to the St. Cathrine of Alexandria Parish of Kauaʻi, which umbrellas the Catholic Churches of Saint Catherine (Kealia), Saint Sylvester (Kīlauea) and Saint William Church (Hanalei), Saint Maxime measured 16' x 30' with a nearby residence for the priest (see Figure 25), and was the first Catholic Church in Hanalei, dedicated in 1864 by Brother Arsene Bernat (St. Catherine of Alexandria Parish 2025).

The Roman Catholic Church at some point acquireed the plot of land on Hanalei River originally awarded to John Brosseau as Land Commission Award 52. The Board of Land Commissioners awarded the parcel to Brosseau as a life estate, meaning it would revert back to Crown (original owner) or Government lands at his death. During a search of early Bureau of Conveyance Records on Kauai (prior to 1910) no deed information was uncovered for this lot.

A Land Court Application, No.1160, Map2 shows LCA52 with ownership at the time, 1940, listed as "Roman Catholic Church of the Territory of Hawaii" (Figure 23).


LOT 2.470 5 ACRES
R. P. 33, L.C.Aw. 52, to John Brosseau
Roman Catholic Church in the Territory of Hawaii (owner)
HANALEI PIER SITE
Pipe
Pipe
Pipe

conclusion of the 19th century (Brother Bertram 1897; Figure 24). Upon closer examination, grounds that include a steepled church, house, and fenced-in garden are visible on the riverbank, as are additional houselots and wet and dry agricultural fields in the lowlands fringing the bay (Brother Bertram 1897; Figure 25). Another taken across the river from the study area shows the same steepled church amidst a trim yard and outbuildings Figure 26). Background research performed for this study indicates the church pictured was St. Maxime, which was constructed in 1864 for a Catholic denomination and demolished in the 1930s (St. Catherine of Alexandria Parish 2025). The church of St. Maxime and its churchyard and outbuildings are shown in an 1897 historical photograph (Catherine of Alexandria Parish 2025). An undated historical photograph that may have been taken from the study area looking out to sea evinces the steamship transport common at the time that could have been utilized by community members. In the picture, a female passenger is being carried onto a rowboat full of other passengers bound for a steamboat waiting in the bay (Hawai‘i State Archives GLS-10-3-1004 Figure 27). The steamship depicted may be the Mikahala, which is identified in another historical photograph (Hawai‘i State Archives GLS-10-3-0995).



Figure 24. Buildings and a fenced-in yard in the study area, captured in an undated historical photograph (Kauaʻi Historical Society #20-938). Saint Maxime Catholic Church and yard can be seen clearly.

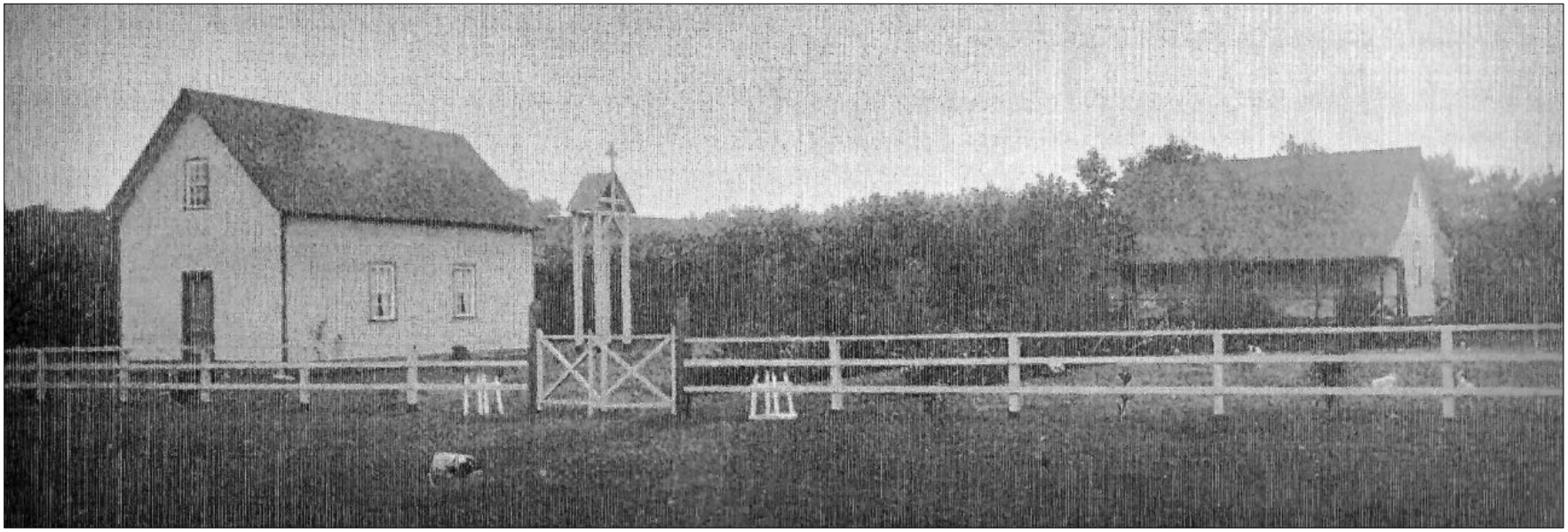


Figure 25. An 1897 historical photograph of the grounds and outbuildings of St. Maxime Catholic Church, which stood in the study area until the 1930s (St. Catherine of Alexandria Parish 2025). See general location in relation to Hanalei River in Figure 24 (Previous).



Figure 26. A close-up view of the 1897 historical photograph showing the churchyard along the riverbank, and houselots and agricultural fields fringing the bay (Brother Bertram 1897).

Whaling

Hanalei Bay is a safe harbor during summer months with a deep portage and wind and wave sheltered anchorage with easy access to the shore near the mouth of Hanalei River. The study area includes the Hanalei pier, the coast stretch situated as the closest landing from safe anchorage area in the Bay.

Hanalei played a role in the Pacific Whaling Industry that lasted from **1825** through **1870** (LaCroix 2019:69). As the whaling industry expanded in the Pacific, Polynesians came to comprise sizable percentages of Pacific whaling fleet crews; at one point, Hawaiians constituted one-fifth of its manpower (Rosenthal 2018: 60-65; Lebo n.d.; PMNM 2023). Whaling ships were serviced, supplied, and manned in the growing port cities of Honolulu, Hilo, and Lahaina (La Croix 2019:102-104; Rosenthal 2018:50, 62, 73, 74). In an account presented to the Kauai Historic Society by Elsie Wilcox, in the early 1900s, notes that whalers came inland to resupply at various outlying ports of call and at agricultural communities throughout the islands, including Hanalei, where they bartered for "pigs, potatoes, yams, and squashes," (Wilcox 1917:269).

A nūpepa article in "Ka Nupepa Kuokoa," on November 16, **1861**, written by the Ahahui Mahiai o Waioli Kauai shows how the decline of an industry, in this case whaling, impacted the livelihoods of local farmers. (translated and summarized by Devin Forrest, in Cordy & Merrin 2020"p35),

> October 30, farmers of Hanalei, Anahola and Waiʻoli came together to form a Farming Organization whose goal is to find ways to make farming more successful because of the decline of whaling, leaving people without enough money for their taxes. They want to try rice and tree fern wool and other plants. A copy of their constitution is posted.



Figure 27. An undated historical photograph shows a female passenger getting carried to a rowboat full of other passengers bound for a steamboat waiting in Hanalei Bay (Hawaiʻi State Archives GLS-10-3-1004).

Agricultural Industry in Hanalei

Historical accounts and archival information evince a variety of agricultural and farm industries were pursued in Hanalei Valley during the nineteenth century. Community historian Elsie Wilcox, writing in the early twentieth century, recounts attempts to grow silk, tobacco, and coffee as well as run cattle in Hanalei (Wilcox 1917). Wilcox describes a silk plantation at Hanalei with four mulberry tree varietals, a "cocoonery," and excellent silk (Wilcox 1917:71). On April 19, 1845, the *Paalua*, a Hawaiian schooner, was shipwrecked off Hanalei Bay in bad weather. Unsuccessful coffee farmer John Bernard and his family were among the lives lost (Wilcox 1917:72). Rice agriculture flourished at Hanalei due to its unique geography and extant, extensive traditional loʻi systems, which enabled it to become the largest center of rice production in Hawaiʻi (Handy, Handy, and Pukui 1972/1991:420).

The sugar industry began a long-term boom in the **1860s**, enhanced by ratifications of the Reciprocity Treaty of 1875 that allowed free trade between the sovereign Hawaiian Kingdom and the United States (Dorrance and Morgan 2000:68; Maclennan 2014:23). Maclennan summarizes the evolution and economic as well as social impacts of the sugar industry in Hawaiʻi:

> The corporate form of organizing sugar production in Hawaiʻi grew out of the early experimentation with sugar cultivation promoted by the Hawaiian king and foreign planters. Corporations are a form of property organization that emerged throughout the world as a regular tool for organization production in the late nineteenth century–but especially in North America and Europe. Hawaiʻi's sugar corporations–later known as the "Big Five"–followed a somewhat unique path, beginning with missionary settlers who pooled their money, property, and influence into vertically organized institutions that eventually controlled vast resources. Hawaiʻi's brand of capitalism was organic to the social and political arrangements of nineteenth-century life based on a native constitutional monarchy that operated in a global world of trade. The first missionary-created corporations emerged in the 1860s during the first sugar boom and within a quarter-century had brought enough wealth and power to their owners to enable them to challenge the political authority of the Hawaiian monarchy. Corporate property then propelled the missionary-descendants-turned-capitalists into positions of political power, serving the industrial drive toward sugar production for a global market. [Maclennan 2014:33]

The Princeville Plantation Company and Hanalei Sugar Mill Company were both active in Hanalei Valley and environs during the nineteenth and twentieth centuries (Dorrance and Morgan 2000:25). In operation from 1862 through 1894, the Princeville Plantation company transitioned through an array of owners before financial insolvency forced its closing in 1894 (Dorrance and Morgan 2000:30). The shorter-lived Hanalei Sugar Mill Company was established in 1889 and shuttered in 1893 (Dorrance and Morgan 200:25).

An undated historical aerial photograph of Hanalei Bay, potentially from the mid-twentieth century, shows the (then forested) study area at the mouth of Hanalei River, with the pier extending into the water (Kauaʻi Historical Society PP-23-1-011). Makai lands under intensive cultivation along the riverbank are also visible.

Kalo farming waxed and waned in Hanalei through the historical era and has ultimately persisted through modern times. Writing about Hanalei in 1972, Handy, Handy, and Pukui state:

> Sugar cane and ranching at different times have taken over most of the land where taro was originally grown. And yet in recent years some taro was still grown there and there was a *poi* mill. When sugar cane was grown commercially about a hundred years ago, taro actually had to be imported to Hanalei from Kalalau. [Handy, Handy, and Pukui 1972/1991:420, 421]

Kalo to Rice

As whaling declined in the Hanalei Bay area, with impacts felt by local farmers across the north and east coasts of the island by 1861, so to did traditional wetland agriculture. As mono-crop sugar and pinneapple plantation systems were expanding across Līhuʻe, Kealia, Kamalomaloʻo, Anahola and Kīlauea, many plantation workers from Japan and China were immigrating to Kauaʻi's East and North shores.

This transition from kalo to rice in the coastal plains of north Kauaʻi is evident in early Hawaiian Kingdom Government Survey maps from the 1880s-1890s, that depict rice in traditional loʻi kalo fields.[7]

A new crop, rice, was in demand from a growing immigrant population. Rice, it turned out thrived in traditional Hawaiian loʻi systems, irrigated wetland fields. Chinese families and Japanese families cultivated rice in Hanalei, Waiʻoli, Waipā, and Waikoko, all four ahupuaʻa that form Hanalei Bay. As rice grew in popularity, families would have concrete pads where rice would be threshed. There are several remaining in Waipā Valley (Blaich et al, Hanalei Project: Kinichi Tasaka interview) and at least one up Hanalei Valley (author's personal knowledge).

Larger scale rice mills were installed by Chinese farmers and millers in Waipā Valley on its east side and a wooden mill in Hanalei valley run by Man Sing (KHS Hanalei Project Interview with Kinichi, NRHP nomination for Haraguchi Rice Mill 1984:p4).

Rice to Kalo

After the Overthrow of the Hawaiian monarchy in 1893 by American businessmen backed by American naval forces in Honolulu, the Provisional Government ruled from 1893-1900, followed by 50 years of Territorial rule. Because of the new relationship between America and Hawaiʻi, rice production in Hawaiʻi was declining by the early 1900s because of competition from California imports.

According to the National Register of Historic Places (NRHP) nomination form for the Haraguchi Rice Mill, the Chinese rice farmers in Hanalei, were eclipsed by Japanese farmers by the 1950s.

> "Despite the competition from the California grown rice, the Japanese farmers continued to produce on a smaller scale than the Chinese farmers. By the early 1950s there were about 50 growers cultivating 170 acres of rice on Kauai. Hanalei Valley held 90 acres, 48 acres in Wailua and the rest was split between Hanapepe and Waimea Valleys

[7] *Monsarrat, Map of Rice Plantation Kalihiwai, Hanalei, Kauai, November 1885.*

Many of the taro farmers in Hanalei today are descendants of Japanese rice farmers and they shared about the transition from rice back to kalo as the dominant crop in Hanalei around the 1940s & 1950s.

Several taro farmers in Hanalei and Waiʻoli, were interviewed for the *I Mano ka Waiʻoli: Sustaining the Joyous Waters, A Cultural Impact Assessment of the Waiʻoli Loʻi Kalo Irrigation System* in 2020. Several of them described their families shift back to kalo from rice. One taro farmer's family has lived in Hanalei for 125 years,

> His great-grandfather came to Kauaʻi to work on the plantations and lived in Hanalei since the late 1800s. His grandfather was born in Hanalei in 1896… he is fortunate enough to live in the same home that his great-grandfather finished building in 1933. In the 1920s, his-great grandfather started raising rice and then slowly started to plant kalo as a supplemental crop in the 1940s. By the 1950s, due to the competitive rice prices in California, he decided to leave that crop and move towards farming taro. For years, his grandfather continued to farm until his uncle eventually took over the farm. [Cordy & Merrin 2020:61]

> 1972: In an interview by Larry Kimura on the Ka Leo Hawaiʻi broadcast, Kupuna Rachel Mahuiki, an elder of the Haleleʻa area speaks about how all people in the Hanalei area, both foreign and Hawaiian, returned to farming kalo, though primarily the older and adult children of the older generation. The younger generation had not taken up kalo because it was too difficult. [Ka Leo Hawaii HV 24:14: Nov. 9, 2009. Also Cordy & Merrin 2020: 38]

Contemporary Hawaiian waterman and cultural researcher John R.K. Clark recounts a history of the local community focused on economy and society in the 19th and 20th centuries, and more recent conflicts over development. Writing in 1990, Clark notes:

> At the turn of the century, agriculture was a thriving business in Hanalei Valley. Farmers there were growing and marketing large quantities of rice and needed a commercial landing to facilitate their shipping operations. The pier dates back to the 1890s, but was rebuilt in 1912. A new deck of reinforced concrete replaced the wooden decking in the early 1920s, and at the same time a large warehouse was constructed onshore.

Commercial use of the pier was discontinued in 1933 because California rice growers were by then dominating the market and undercutting the price of Hawaiian rice. Since that time, the pier has been used exclusively for recreational purposes.

Nā Hana a ke Kupa ʻĀina

This section highlights the traditional and customary practices noted to occur within the study area ahupuaʻa and the larger connected landscape from Hanalei Muliwai. These practices emphasize the generations of kupa ʻāina (native of the land) in Hanalei who maintain a deep pilina with the vast natural and cultural resources of this ʻāina, wai and kai. The cultivation and stewardship of the land and sea, and the ocean and water practices that strengthen the mauliola of the community and contribute to the well being of Haleleʻa people, physically and spiritually. These practices are a testament to the enduring legacy of Native Hawaiian traditions in the area, and reaffirm the right for Kānaka ʻŌiwi to actively maintain traditional and customary practices in these spaces today.

Identified Native Hawaiian Traditional Customary Practices & Impacts

Traditional and Customary Native Hawaiian rights are exercised through practice, continued or restored. Practice relies on resources. If a resource exists, a practice exists. If a resource existed historically and has the potential to be restored, then the practice exists. This is the premise upon which Nohopapa bases its inventory of valued cultural and historical or natural resources in the project area. To fulfill the requirements of this CIA, this inventory includes what we are calling **resources**, or cultural resources, which refer to "valued cultural, historical, or natural resources…" that stand alone or are part of a practice. We refer to Native Hawaiian "traditional and customary Native Hawaiian rights" as **practices**. Practices often require resources to be exercised, and the two go hand in hand.

To address the challenges of identifying customs and valued resources in an area, and to relieve the burden from the community to come forward in a tight timeframe and under the assumption of un-requited knowledge sharing, this study approaches the inventory through:

- early and meaningful consultation in the form most comfortable to community
- extensive primary source research, including past interviews.
- With clarity that consultation **cannot** be "recycled" however it can assist in identification of resource, practices and traditions
- the understanding that if a resource exists or can be restored then the right or practice exists.

Limitations

It is unreasonable to assume it is possible to inventory all the traditional and customary native Hawaiian rights being exercised in a single area, let alone during the term of a compliance study. Firstly, because it is a well-known truth, embodied in an ʻŌlelo Noʻeau, that "ʻAʻohe pau ʻike i ka hālau hoʻokāhi. All knowledge is not taught in the same school" (Pukui 1989:24, #203). This can be taken to mean that one can, and should, learn from many sources and that one cannot at the same time hold all the sources of knowledge. Secondly, to place the burden on practitioners to come forward in a timeline subject to an undertaking such as this one is unreasonable and impossible for many reasons. Last, and perhaps most important to acknowledge, is that many kumu, practitioners, and ʻohana have Native Hawaiian traditions and customs that are not for frivolous sharing. As in many hālau, knowledge must be earned and entrusted.

Black Pot Beach Park – Established by ʻOhana

The eastern corner of Hanalei Bay is a traditional gathering place for the residents of Hanalei. Even before the construction of the landing, they congregated here to launch their boats, to fish, to swim, and to socialize. Today, these same activities and others continue at the this site. The name Black Pot predates the development of the public park. For many years a group of Hanalei residents kept a large black cooking pot at the beach, which became a focal point for informal social gatherings and eventually gave the site its popular name.

In December 1967 a group of investors purchased the Black Pot site for $234,000. Although the area had been used continuously by the public for many years, it was private property. The new owners closed the area to the public and announced their intention to build a condominium. Their plans touched off six years of intense controversy. Local residents adamantly refused to give up their traditional recreation site.

By 1973 the developers still had not been able to get the permits needed for their project, and they agreed to sell the parcel to the county for $405,000. In July of that year the area was reopened as Black Pot Beach Park.... (Clark 1990:29).

Clark notes how the re-opening of Black Pot Beach Park and the history of its name was commemorated in a July 16, 1973 article in *The Garden Island* newspaper:

> A large group of local people joined the County officiate in celebrating the [dedication of Black Pot Beach Park] which marked the re-opening of the popular recreation site next to Hanalei Pier.
>
> Formerly a gathering spot for many local people it derived its name from the big, black cooking pot used by fishermen and picnickers who cooked and shared their fish and stew there.
>
> The "Private Property, no Trespassing," sign that had been posted for the past seven years was removed at Wednesday's ceremony also, ending the long-standing controversy over the use of the site. [Unknown Author 1973 in Clark 1990:28]

The Black Pot - Community Gathering

The establishment of Black Pot for public use and its inception as a park came about because of the gathering of area families in that place. We were told by participants that area families gathered where an abundance of resources allowed them to kilo, fish, surf, sail, paddle, kanikapila (play music) and cook together. All community participants recalled weekends at Black Pot. Several long-time families made it clear that they did not just go to the park, they took care of it as well. This led to the founding of the Hanalei Hawaiian Civic Club and the Hanalei Canoe Club in the 1970s. Family relationships with Black Pot were reciprocal; it was not a visit, use, and leave situation.

> There are a lot of families that were of this place that held those County positions that took pride in care taking and being kiaʻi for place. I think a lot about Uncle Willie...
>
> ... lots of people keep forgetting that Uncle Willie used to be caretaker. He's a County employee. He used to caretake the park...

> He's the one that used to know that "this" was happening here because he was here every time. And he used to have this [zone], where you drive in right here that he took [special] care for himself. Where the boat ramp is now was his zone.

A recommendation shared was for community management of place, the practice of kiaʻi, where people from place that have a relationship with it over time. If these people are the ones who steward a place, they will understand when it's healthy and when it needs care.

For many generational families, Black Pot was a community space where they could have hoʻolewa (funerals), baby luaus (1st birthdays), and other gatherings.

One participant was concerned that the new design locked out access for some places where families would go and set up a tent, but did not provide that space elsewhere. They suggested a pavilion on the eastern side or a similar use facility for hoʻolewa, for community meetings, and gatherings by ʻohana, on which the use of the Park was founded. A thoughtful question posed by one participant is,

> Which park users have an investment in the long term health of the waters around Black Pot? And who is going to spend the time to mālama that?

The stewardship and care of wahi kūpuna, ancestral places, including the waters, the land, the fish, the limu, and crabs, down to the sand on the beach and the pōhaku in the water, is a cultural practice; mālama ʻāina. This stewardship is a traditional and active Native Hawaiian practice, similar to how Hui's shared the management of resources, as with the Hui Hoolimalima aina Lei alii of Hanalei, the Wainiha and Hāʻena Hui's. It seems natural that the descendants of the founders of these Hui were the same ones who founded Black Pot Park.

Participants expressed concerns that the many resources at Black Pot are no longer being stewarded for future generations. Without active care, the consesus among consultees was that "use" and the "user experience" at Black Pot will continue to degrade.

In the past Black Pot was a place for intergenerational community gathering. There were kids and kūpuna. One practitioner told us, "Not too much kūpuna now." That loss of Black Pot as an intergenerational gathering space, we were told, is a shame.

It was the practice of gathering and sharing of fish, that Black Pot was founded on. We were told that Tai Hook Ham Young had a big black pot in which he cooked fish stew and other things. Mr. Ham Young was also one of the lawaiʻa named as running hukilau in the area. It was this mix of subsistence and sharing, fishing and gathering that lead to the name of Black Pot. The Park in fact, derives its identity from traditional cultural practices that occured in that place by the generational families of Hanalei at the muliwai of Hanalei River.

Hanalei Boating Wars

Three participants, and two other long time community members, shared with us about the Hanalei Boating wars in the 1970s and 80s. Some participants named their parents and grandparents as those who gave testimony in favor of reducing commercial activity in the Bay, specifically around commercial boating.

One participant shared that they remembered when there was so much traffic coming into the muliwai at Hanalei River that people could not swim or fish along that area of Black Pot.

We were told that there were many meetings held in Hanalei and that many kūpuna, now passed, including relatives of every consultee who participated, had given testimony in favor of protecting the resources at Hanalei Muliwai and Bay. At one point even the BLNR chair came to Hanalei to attend a meeting.

The Nohopapa Hawai‘i research team tried to find public records of these testimonies, that would provide a baseline of natural resources, and of many of the community’s on going asks for management and cultural resource stewardship at Black Pot, but we were unable to find records. Future studies, and County Parks staff, as stewards of this place, should continue attempts to locate these important testimonies.

Lawai‘a

Since time immemorial families that lived in the four ahupua‘a that form Hanalei Bay, Waikoko, Waipā, Wai‘oli and Hanalei, fished as a form of subsistence; these four ahupua‘a have 4 like named streams that flow into Hanalei Bay. This influx of fresh water into the Bay creates a sheltered near shore ecosystem primed for abundance. Young pua, baby herbivoruous fish thrive in the Hanalei River muliwai sheltered from predator fish. It was shared with us that this fresh water charge into the Bay, the currents and sand bar near the pier also create ideal young fish habitat.

Black Pot, which includes the northernmost part of Mahamoku Beach, the Hanalei River mouth, its muliwai, and riparian coast, is historically, and in recent memory a place of abundance where fisher people could subsist and sustain their families. One consultee‘s family accounted for at least eight generations fishing at Hanalei Bay and Hanalei River specfically.

Seven community respondents told us that all kinds of fishing occurs(ed) at Black Pot; pole fishing, throwing net, communal fishing like hukilau or paepae, deep sea fisherpeople launching and returning at the Hanalei River mouth, as well as crabbing in the river and on the rocks, and even harpooning from shore at the river mouth. These practices occured in the bay, onshore, off shore, at the sand bar, in row boats in the river, along the river, and off the pier.

Fish and other marine and estuarine species named as being present in the Black Pot Beach Park waters, during consultation and in past Hanalei kūpuna interviews include: ‘Ōpelu (Mackerel scad, *Decapterus macarellus*), Ulua, pāpio (Giant Trevally, *Caranx ignobilis*), Āholehole (Hawaiian Flagtail, *Kuhlia xenura*), Moi & Moi li‘i li‘i (Pacific threadfin, *Polydactylus sexfilis)*, Akule (Bigeye scad, *Selar crumenophthalmus*), ‘Ama‘ama (Mullet, Striped mullet, *Selar crumenophthalmus*), ‘Oama or juvenile Weke (Goatfish, various species of Mullidae including *Mulloidichthys flavolineatus*), Barracuda (*Sphyraena barracuda)* Hinalea or hinahina fish (Belted Wrasse, *Stethojulis balteata*), Hihimanu (Spotted Eagle Ray, *Aetobatus narinari*), Sand Turtles (Marbled Mole Crab, *Hippa marmorata*), Samoan Crab (Mud crab, *Scylla* serrata), Kūhonu, Haole crab or white crab (*Portunus sanguinolentus*), various crabs, Wī or Hīhīwai (*Neretina granosa)*, Pipipi (*Nerita Picea)*, Sea Grapes (*Coccoloba uvifera*), and Pōhuehue (*Ipomoea pes-caprae*).

Several people shared that Hihimanu, the spotted wray, is both a name of one of the fringing Hanalei pu‘u and also common in the Bay. While spotting a Hihimanu in the Bay is less common nowadays, two participants shared that during the Covid Pandemic restrictions, when Kaua‘i was recieveing little or no visitors, schools of Hihimanu were frequenting Hanalei Bay. Several Hihimanu were observed off traditional sailing canoes during the August-2025 Wa‘a Ho‘ākea event at Black Pot.

Smaller sharks we were told, are a common sight in the Bay, especially under and near the pier and the area where ships dock in the summer months.

In one of the older personal accounts uncovered during research for this project, a Hanalei resident, Mr. Harry Ho, was interviewed for the Hanalei Project. Harry Ho spoke about fishing at Hanalei Bay and muliwai,

> ...at low tide the Hawaiians would go out by the edge of the apapa and fish with rod and line. The fish were so plentiful. The ladies mostly fished at the mouth of the rivers because there were lots of hinahina. And there were lots of moi along the seashore. There was no kapu seaeson, but there were lots and lots of fish. And those who used the nets, the mesh was of a larger size than today. I remember that the throw nets were 3 inch in size...
>
> ...we used to cath mostly the large size mullets which were called amama. We didnt care to catch the smaller ones.

One participant said that more large pelagic fish used to come to the coast and along the river mouth, but they no longer do because of all the activity along the shore and river mouth.

> Back before, pelagics used to come in closer into shore. More Pelagic fish used to come into the Bay. You used to hear stories of lots of bigger fish coming into the river as well. It is a practice where they [fisherpeople] used to fish for big fish at the river mouth. That was a common practice for our grandparents generation.
>
> Harpoon, They did that at Wainiha and hanalei a lot. When the river [mouth] would break out, thats when they would harpoon fish like ulua and such.. especially Tai Hook. Wainha. Hanalei.

Fishing at the river mouth for larger pelagics happened after floods or rain events whent he river mouth blew open.

There was consensus among consultees that there are less fish than a generation ago, and less fish than the generation before that. This continued loss of marine and estuarine abundance was also identified by Interviewees who participated in the 2003 Maly & Maly study (2003:46) identified changes overtime in overall ocean and stream health and abundance from Hanalei to Hāʻena,

- ☐ Loss of the old Hawaiian system of konohiki fisheries; adherence to seasons of kapu fisheries (managed by ahupuaʻa and island regions); and lack of respect for ahupuaʻa management systems and tenant rights.
- ☐ Too many people do not respect the ocean and land—they over harvest fish and other aquatic resources, with no thought of tomorrow or future generations. It was observed that taking more than one needs, only to freeze it for later use, removes viable breeding stock from the fisheries, and as a result, leads to depletion of the resources.
- ☐ Sites traditionally visited by families, having been developed and/or traditional accesses blocked; thus putting greater pressure on fewer collection sites.

- ☐ Changes in the environment—near shore fisheries destroyed by declining water flow and increasing pollution. This is particularly attributed to the tourist boats which ply the waters between Hanalei and Nāpali destinations.

Maly & Maly 2003:46

The quoted bullets above above were shared in the 2003 Maly and Maly study, as impacts that generation saw happening to marine and estuarine resources. These same impacts and causes are being repeated, 22 years later, by consultees in this study. They stem from carrying capacity for resources, overcrowding, and lack of management. Seeing that these impacts are long-standing, compounding, and unaddressed, these are urgent considerations for the County to address with mitigations.

Spawning Grounds

One fisherman told us that there is a kind of underwater crater that fish spawn in, just off the pier. He explained that when the Kona, south, winds blow, boats anchored in the Bay swing at the most on-shore tether of their moorings and disturb this fish spawning area.

Impact: He told us there were two years where they never caught this species because these safe places in the Bay were being disturbed.

Another consultee mentioned that intense water traffic connected to Black Pot Beach Park users impacted schools of fish in Hanalei Bay, especially in a critical zone entering and exiting the Hanalei River muliwai.

The protection of the spawning grounds and access for young fish to clean fresh water at the muliwai, where it mixes with fresh salt water, is also important for the larger ocean fishery, even the deep sea fishery. One of our younger participants remembers stories shared in their family,

> One thing my dad always shares is that right outside of Hanalei is the predator highway. I feel like that's an important thing because that connects all of the North Shore to. If you think about the balance of the ecosystem, the predators are super important. He always says, that's the most important thing 'cause that's where all the predators come from. It's like a highway of predators, that's where they all travel up and down [the coast].
>
> Kalihikai and then all the way down to Hāʻena is a pathway that all the predators travel.
>
> That's where the stories of manō [are from], what I always grew up with. They always say there's big manō way out there. Big, big, big guys. But my dad says you see big kind out there too [outside the reef].

Four community members shared fond recollections of abundant schools of fish and Hihimanu, baby sharks, lots of small mollusks on rocks, pier pilings and in the sands.

One of those practitioners said it was typical for schools of fish like mullet and aholehole to run in and out of the river, and that they remembered larger schools of baby and juvenile fish, moi liʻiliʻi and ʻoama, at the coast and in the river in their youth.

Two participants spoke of Barracuda in the river and two others spoke of larger pelagic fish, not spawning, but being drawn to feed in the river by the abundant schools of pua.

Hukilau

The undated historical photograph entitled "Preparation for Hukilau" is an example of traditional cultural practices, like communal fishing, that persisted in Hanalei well into the historical era. At least four community members spoke about Hukilau at Hanalei Bay in their memory, taking the hulilau practice at least into the 1980s and possibly the 1990s, into the modern era.

One participant spoke about "old man" Tai Hook, Kalani Ah Fookʻs father, who used to organize Hukilau at Hanalei. Wendell Gooʻs father was another man who ran hukilau. In reference to the Hanalei Bay coast at Black Pot, the same long time Hanalei resident said, "*Used* to have a lot of fishing over there," implying that today the fishery is less abundant.

Another participant remembered, as a child Haraguchi leading hukilau.



Figure 28. An undated historical photograph showing preparations for hukilau, a traditional communal fishing practice (Kauaʻi Historical Society PP-23-1-011).

A detailed account of hukilau at Hanalei was given by an observer, Mr. Alan Faye, Julian Helder and David Helder were interviewed in a group talk story style by Auliʻi Mitchel for a Cultural Impact Assessment for a Wainiha Bridge Project in 2016. Mr. David Helder, born 1947 was described as being a resident of Wainiha for 18 years at the time of the interview in 2016. The conversation turned to Hanalei Hawaiian families, fishing and hukilau at Hanalei Bay he recalled from at least 20-years before.

"According to David Helder, when his family moved to Hanalei, they held many memories of what cultural events they witnessed in their time. One major event was the practice of hukilau. The Hawaiians were still using subsistence fishing methods, usually one a month. David remembers that Wainiha Beach used to be filled with pick-up trucks and the Hawaiians were out fishing all the time. Mr. Helder recalled the practice of fishing was very evident where Hawaiian families lived and fished all night long. Surfing was another practice amongst the Hawaiians at that time were they could often be seen on the right hand side of Lumahaʻi Bay where they dive for lobster. According to Mr. Helder these activities have substantially died off, where the children have grown up and Wainiha has gotten so expensive that they are either living at home or they have moved away to find work.

Mr. Fayé chimed in the discussion sharing his thoughts that Wainiha was the last of the old day style of Hawaiian fishing practices. Coming to Hanalei as a child, there were just a few non-Hawaiian families. Alan and his family used to sit down in front of the families beach house, they witnessed boats ready to go out filled with nets from Hanalei to Waipā. Back in the 1930s he observed a man that would sit up high in a tree watching for the fish to swim in. The man would then signal to all and everyone would take their boats out to sea. Mr. Fayé got to experience the laying of the nets. All the nets were laid way out in front of the beach way out as far as the eyes can see, then another boat came from the river side and one from the Waikoko side, then out at the end the nets were sewed together by the Hawaiians. The nets used at that time would be 16 to 18 feet deep. The Hawaiians would stay under the water for two or three minutes, holding their breath while they sewed the nets and then the hukilau started. The entire community new about the hukilau. Alan described how the hukilau worked:

"So the way it worked is this, they had these wooden winches, like the barrel was maybe 2 feet in diameter it was wooden. It had a huge plus kind of a bottom, so here is this thing on the top there was a huge wood piece that came through here, is this round thing on the ground so what it's got it is pretty well fixed on the ground what it is a winch, because the first 100 feet, 50 feet of the net was just rope, so the guys would turn the crank until the nets got close enough so people in the water could start huki [pull], both sides these big wooden winches, wooden winches crank 'em, crank 'em. Then when it comes to a certain then everyone is down there on both sides of the nets, huki, huki, huki, huki, huki, by that time bunch of guys would come down with baskets. The fish would be all like this, bamboo woven baskets about 3 feet in diameter, they would start putting the small fish in the basket, they go first, then they take them back and put them inside of the pick-up trucks, model A truck is what it was. It was huge thing in the back with a screen and they would through the fish inside there, they keep throwing the fish in the back and then they finally come to the big fish and a different bigger trucks would come and they fill those up and finally you get to the big ones, sometime like the ono [large mackerel type fish; Acanthocybium solandri] would go take off and go right through the puka [hole] in the nets and you couldn't grab an ono, but you kept maybe a few mahimahi [dolphin; Coryphaena hippurus], you always got plenty of papio juvenile crevalle] and some ulua [certain species of crevalle, jack, or pompano], so and everybody would take the fish in their t-shirts or kind of shirts and fill them up whatever you can put in side that is what you take that is the fish you take. All the other fish take to the market certain this chakalaka would go over to Kapaʻa maybe take the fish to the whole east side. I think they went as far as Kapaʻa and Anahola and they would

go real fast before the fish got bad. Then people at that end would know about because had hand crank phone in those days. So then, they had this Hanalei Pier used to have nothing on top it was open they had a railroad track that went all the way back, they had this shed a big long shed inside it was hundreds and hundreds and piles of hukilau nets they stored them in there, so when was hukilau time the nets weren't down by the boats. They dragged 'em down to the boat you know depends on how deep the hukilau. Whoever went up to see the fish, the fish potter, he had a Hawaiian name. He would tell how many fish, how far out and they judge how deep the net had to be because it had to go all the way to the bottom. In the waning days of the hukilau, the man who sat up in the tree, had one iron wood tree, iron wood tree must of been about 40 feet high, and he climb up to the top and sit up there for hours and wait for the fish, it was none other than John Hanohano Pa."

-Liborio et al 2016: 120-121

Mr. Helder stated that the hukilau he witnessed in Hanalei Bay was about 20 years ago and at that time everybody on the beach got in the water. Two pick-up trucks with 55 gallon drums in the back filled with fish."

-Liborio et al 2016:122

Kūʻula

Kūʻula are naturally occurring or carved stones that were themselves considered akua, or gods. Families cared for and maintained kūʻula in their homes, or at koʻa (fishing shrines) along the shore. Kūʻula are part of the religious beliefs of Hawaiians tied to the practice of lawaiʻa.

Kūʻula are defined by Elbert and Pukui as "Any stone god used to attract fish; open altar near the sea for worship of fish gods. *Lit*., red *Kū* (Elbert & Pukui 1997:73). Helena Maka Santos, while interviewing Harry Ho, on March 8th, 1988 for the Hanalei Project asked about kūʻula. Harry Ho, consultee Randall Osakodaʻs grandfather, had a lot of knowledge of kūʻula, and as it turns out Ms. Santosʻs grandmother, herself kept a kūʻula, along with other Haleleʻa families.



Figure 29. Kūʻula photographed by the author in 2025 in Wailuku at the Bailey House Museum. These Maui fishing akua are from Makena to Wailuku, Kauaʻi, particularly Hanalei would have had Kūʻula similar to these, a mix of stone figures both carved and natural.

The conversation starts after Mr. Harry Ho talks about fish having once been so plentiful, that before, there were so many fish that the net eyes used to be 3-inches instead of the 1.5-inches today. He explained how this was partly because families had kūʻula,

> Well, the kūʻula was supposed to be a fish god, so when the Hawaiians wanted to have fish, they would go at night down to the beach and wash the god, and the next morning the fish were practically rolling on the sand.

Mr.Ho explained that kūʻula could be for different species people caught. He told Ms. Helena Santos that kūʻula were real; sharing with her a story from her own family,

> Yes, and it actually worked. Itʻs not superstition. Even your grandmother, she had the kūʻula for squid or octopus, thatʻs why every morning she pick up so many heʻe.
>
> Its too bad they didnt keep it up but there was danger too keeping a kūʻula...
>
> ...you have to be clean, personally, and you must feed the kuʻula with either bananas or awa root.
>
> The kūʻula was a stone carving. I know that your grandmother had one. Old man Komiolani had one, Paʻu Waiuli had one, I know.

Mr.Ho confirmed that kūʻula were passed down and cared for in families, which was a tradition that did not outlast the rise of Christianity. He explains what happened to the kūʻula of Hanalei,

> ...If you did not feed the Kūʻula then it will bite you, that is, it will cause you sickness and you will die.
>
> But many of the Hawaiians, after they became Christians, they killed that off. To dispose of the kūʻula, you dont throw it away. You take it down to the ocean someplace and put it into the water.

Assuredly the many kūʻula, the fishing gods of Hanalei, are still in there, in the waters off Hanalei Bay today.

Crabbing

The grandchild and great-granchildren of one of the participants in the Hanalei Project, still live on the banks of the Hanalei River whole life, just upriver of the study area. This ʻohana has crabbed and fished the river for generations. Lately they have observed that more and more people are crabbing on the river. Recently they witnessed a trailer parked on the side of the road that unloaded 20 crab traps. They wondered if there were or would be any restrictions on crabbing and over fishing in Hanalei River at and above Black Pot where many people launch from.

This family sees Sāmoan crab, though not a Native to Hawaiʻi as an important food source and resource.

Hawaiian customary traditions around fishing are that you fish your area. With increases in parking, boat access and the commercialization of Black Pot, community members worry about resources for future generations.

Access and Management

Three participants liked that the gate to the sandbar is now locked, because even though their families used to camp there, they did see the access become abused by the sheer amounts of locals and visitors at the Park, with driving on the beach fronting the Bay becoming "out of control" as one participant put it.

Two participants agreed (in separate conversations) that the way access is provided to fisherman, to the locked gate, is inconsistent and unclear.

One participant suggested the creation of a lawaiʻa committee to help establish best practices for fisherman accesing the area and around the management of fishing access; and volunteered to help create and be on that lawaiʻa committee. One of the lawaiʻa committeeʻs roles would be to manage the gate key for fishing access.

Directly across the river from Black Pot Beach Park residents from the old Princeville ranch worker housing, they called Hale Honu, would use the old Club Med (destroyed by Hurricane Iniki) to access the river and beach.

Two participants recalled that you cant just walk down that ridge, you had to use the old Club Med gate, now owned by Princeville Development Corporation. We were told that the ridge that old river access-way comes down is called Lanihuli.

Waʻa

Whether traditional sailing canoes, 6-man racing canoes, smaller surfing canoes or one-man outrigger canoes, Hanalei Bay has been a safe harbor and a hub for waʻa since time immemorial, a practice that continues today.

Hanalei Hawaiian Civic Club & Hanalei Canoe Club

From one participants understanding, Hanalei Hawaiian Civic Club was founded in 1959. Then fourteen years later, in 1973 the Hanalei Canoe Club was founded through the civic club (also confirmed on HCC website: Hanaleicnaoeclub.org).

> It was founded because the Hawaiian families of Hanalei wanted a positive activity for their kids to participate in. Basically, there was some activation around canoes and the founding families.

This was confirmed by another participant, whose mother was a founding member, they shared that the Hanalei Hawaiian Civic Club and Canoe Club was created to keep the kids, like them, busy and out of trouble, and then they spent even more time down at Black Pot. Two generations later, that participants' keiki and moʻopuna continue to paddle.

The Mission Purpose of the Hanalei Canoe Club is to, "provide our community, young and old alike, with the opportunity to perpetuate the culture and art of Hawaiian canoe paddling."

Uncle Stu and Aunty Shirley Kalama gifted the first canoe that helped start Hanalei Canoe Club, its name was Poʻokela. Participants told us another name for that canoe was Kahakuohawaiʻiponoʻī.

The first men's adult crew in Hanalei Canoe Club's founding year, 1973, won 1st place in the Molokaʻi Hoe, a famous inter-island race that crosses the Kaiwi Channel. The Hanalei Canoe Club's website lists the paddlers on that team: Nick Beck, Francis Chandler Jr., Kirk Chandler,

Moku Chandler, Blakesley Conant, Tiger Espera, Wendall Fu, Kawika Goodale, Bito Hermosura, Togo Hermosura, Dixon Inouye, Christian Marston, and Kachi Yokotake. It was a huge win and upset from an outer-island team.

In the early years, the Hanalei Canoe Club's canoes were kept at Black Pot Beach, along the coast. Then, the Wilcox family provided a location for the Club's first hale, at Black Pot Beach Park between the two boat ramps. The original site of the Hanalei Canoe Club house is in the center of the study area. It was in part the Hanalei Canoe Club that contributed to the care and establishment of Black Pot as a Park. Currently, the old canoe hale is in disrepair and slated for demolition in the proposed project improvements.

Although now the original Canoe Club hale is in the park, it was not always County land, it was private land, the owners, as we were told wanted the river front area for their own purposes and in 1989 proposed moving the Hanalei Canoe Club to its current location, which the Board at the time agreed to. Currently there is an area at Black Pot set aside for Na Molokama Canoe Club. There was worry that one day the private land owner of the current Hanalei Canoe Club location will one day pass and the lease will end.

One participant asked if Park improvement design could think about a future space for re-housing the Hanalei Canoe Club if it became displaced.

We were told that Hanalei Canoe Club used to be one of many waʻa hui under Hawaiian Civic Clubs, but now, Hanalei Hawaiian Civic Club is the last one left.

Sailing

In August-2025 an event was organized by Waa Kauluamano kalanipo, with support from the Waipā Foundation, Nā Maka Onaona, the Hawaiʻi State Department of Education, and Young Brothers.

The ʻauwaʻa, canoe fleet, was made up of visiting waʻa from Oʻahu, Maui, and Hawaiʻi island: Pōkiʻī, Kūmau, Kiakahi, Maiau, Keaolewa, Mānaiakalani, and Kānehunāmoku. Hundreds of Kauaʻi families and more than a few from outer islands participated in the event which included educational stations, sailing on waʻa, and for some steering and paddling.



Figure 30. August 23, 2025 photo, with over nine traditional sailing waʻa present at Black Pot Beach Park for the Hoʻākea waʻa event (Nohopapa Hawaiʻi).

Two waʻa are based out of Hanalei Bay, Keakealani and Ihuwaʻa. Both Waipā Foundation and Nā Maka Onaona run waʻa based programs for children and community, increasing practitioners in a place where sailing waʻa was historically the main artery of transportation. Hanalei Bay is apparently also an excellent training ground for traditional Hawaiian voyaging. The Captain of Maiau, a visiting waʻa from Hawaiʻi Island, told us that Hanalei Bay is the perfect place to learn to sail. The Bay is sheltered, with good winds, calm in the summer, and the sand of Mahamoku, at Blackpot, just inland of the Hanalei Pier, is perfect for landing canoes.

Hanalei in moʻolelo, shared in the above sections, and shared with us by two participants, was the launching place to get to Nā Pali, and the plains of Mānā in Kona Moku (Kekaha and Waimea), Niʻihau, and beyond. One consultee said,

> ...if you're going to Nāpali, you're going to Kalalau. If you're going to Kalalau you're launching out of Hanalei.

In addition, we were told, because the landing and anchorage at Black Pot is so choice, if you were sailing out of Hanalei, you were leaving from the coast of Mahamoku, at Black Pot Beach Park. In fact, to close out the Hoʻākea event in August 2025, the next day, many of the waʻa on the beach at Black Pot left for Nā Pali, to Nuʻalolo, then on to the west side.

> Access to Nā Pali, that is an old ala from before. Way before. Like the moʻolelo from olden days tell us that that's the Niʻihau to Hanalei connection. There's examples of that connection of people traveling from Hanalei to Niʻihau. And that's why a lot of us actually have roots in Niʻihau.

This is supported by the many names found in the Hanalei Hui filing with the bureau, discussed in a previous section. Many of these same families were from Wainiha, Hāʻena, Niʻihau, and in the case of one ʻohana—from Nihoa in Papāhanaumokuākea (Nohopapa Hawaiʻi, 2023:78-81).

Kilo

To sail a waʻa or even to paddle one long distance requires a traditional practice called kilo. Kilo, defined by Pukui & Elbert (1992:60), is a "stargazer, reader of omens, seer, astrologer," and it is also to "watch closely." Kilo is a practice of keen observation and familiarity with a place, over time, in different conditions, at different times of the day, month, or year.

One participant mentioned Carlos Andrade, a long time professor at Kamakakūokalani Center for Hawaiian Studies at the University of Hawaiʻi at Mānoa, also the author of *Hāʻena: Through the Eyes of Our Ancestors* (2009), he was also a surfer, involved with the Hōkūleʻa and one of the first to bring sailing canoes back to Hanalei Bay. One of our participants shared something he taught them about kilo specifically at Hanalei Bay. That if you stand at the Hanalei Pavilion, just down the beach from Black Pot and look down the line of the bathroom wall, you can line up the sun at Equinox, March and September, we were told heʻd say something like,

> "When the sun is lined up over there, that's the sun going to live with his winter lover. Or the sun going to live with his summer lover.

Describing the location of the sun at that place when it's going into the ocean and going behind the mountain. This kind of knowledge, learned in place, is what sailors, paddlers, and fisherpeople practice to be able to practice. Kilo is often overlooked as a Native Hawaiian traditional practice, but some of our participants shared that it's one of the most important.

And we were told that kilo-ing at Black Pot, in the early morning, at sunset, on the river, in the Bay, at the shore, during Equinox, or solstice, and all the times in between is a critically important practice to maintain. Kilo being a practice that underpins so many others. Access is critical for practitioners, learns and educators, for sailing canoes and other practices named in this section along Hanalei Bay and at Black Pot. Access to the area to kilo is something important that we were told needs to be protected.

Surfing

Surfing at Hanalei Bay is storied. The larger Bay break can reach phenomenal heights while the inner shore break to the left and right of the pier is gentle and rolling often likened to the famous breaks at Canoes in Waikīkī. In fact, one participant suggested that with all the surf schools at Hanalei, the surf break was even *more* crowded than Waikīkī.

The sand bar at the river mouth on the north side of Hanalei Pier changes during the year with sand building across the river out into the ocean and along the uka riparian shoreline. We were told that these changing sands at Black Pot are normal, they recede and build up with storms, swells, and tides and change the depth and width of the river mouth and the surf break.

It should be noted that Sunday is a no commercial surf school day at Black Pot, and that no surf schools are allowed to park at the Beach Park, only drop offs of equipment and participants is allowed.

Although our team was able to speak with several families renowned for surfing in the area, none of them formally participated in this study.

There were still however, surfers among those who participated, including those in families who claimed generational (past and present) surfer, and consensus among them was of overcrowding

by commercial use surf schools and that unmitigated and un-managed commercial use and rule enforcement is negatively impacting their ability to pass on the practice to their children.

The area where surf schools dominate the shore, and line up with 10+ foot boards with instructors who push "students" into waves is the exact place where it is ideal to teach children to paddle into surf themselves. 1st time surf "students" have little control over their boards and are often visitors who are not ocean competent. One parent said that is why they do not take their children to Black Pot to learn to surf, where they learned to surf; because of the dangerous conditions and crowding created by commercial use.

At least three people noted that the rules for commercial surfing use at Black Pot are not enforced. These participants noted that at least one commercial surf "school" business parks its vehicles at a nearby neighbors' driveway, that is not zoned for commercial use, rather than doing a drop off of customers. It was a repeated observation. If the County does not have the ability to monitor, regulate, and enforce the rules governing commercial activities to prevent their abuse at Black Pot, then participants all voiced the opinion they should not be allowed.

Regarding the proliferation of surf schools, many respondents said they no longer surf that area, or don't bring their kids to learn to surf there because it's so crowded from commercial use. Every participant who surfed felt like commercial surf schools have taken over Blackpot to the detriment of traditional Hawaiian and community use.

> "I think that someplace like Black Pot should be reserved for the community and not have commercial activity. Commercial activity should take place somewhere else where the communuity is not that big of a user."

There were very strong feelings shared about the overcrowding of commercial surf use at Black Pot.

Mālama Iwi Kūpuna

In past work at Black Pot Beach Park, in the large lawn forward of the recreational boat ramp, a 2016 Archaeological Inventory Survey (AIS) conducted by Missy Kamae (a generational kupa ʻāina of the west side of Kauaʻi) working for Cultural Surveys Hawaiʻi (CSH) encountered a single fragment of a human bone in backfill. This means there was iwi kūpuna present in previously disturbed original fill at the Park. Work was stopped and the iwi protected, but no further remains were encountered.

Subsequently, the iwi kūpuna fragment was re-interred at Black Pot Beach Park some time later through the efforts of a member of the Kauaʻi Island Burial Council (KIBC). Unfortunately, the location was lost, but thankfully, that original KIBC member who took the time to show us where the re-bruial at the park is located. This locational information was re-shared with the State Historic Preservation Department (SHPD) and the design team planning the currently proposed improvements at Black Pot Beach Park.

One respondent asked for signage and a buffer at the iwi reinternment location, and wanted design plans to consider a reinternement area if it was needed for the park.

Another participant asked, Why not have 1-acre areas also set aside at other Hanalei Bay parks?

Additional asks were for a natural buffer to be established around a nearby removed tree stump that helped mark the reinterment area. In addition, new temporary parking had since been made partially over the reinterment area, and it was requested that plans include moving the two westernmost concrete blocks (south) a couple of feet to allow for a buffer, as they are currently in line with the removed stump and reinterred iwi.

It was asked that an area be preserved from the false kamani tree (NNE) to the existing fence (west) to concrete barriers (south) to protect the existing iwi and as a location for any future re-interments, which, several participants thought was likely; considering the current fragment and the history of the area.

Four community members asked that plans ensure that cars cannot drive over the area and appropriate signage could be erected. As recently as August-2025 the authors of this report observed cars and park goers parked and set up with tents and chairs over the un-marked re-interment site.

A letter report with more detailed locations and a discussion of the field visit with the KIBC member knowledgeable of the re-interrment location was provided to project leaders to incorporate into the Beach Park improvement plan.

Appropriate signage should be coordinated with lineal descendants, active caretakers, and practitioners of the Black Pot area.

Much of the Black Pot Beach Park property has remained undeveloped over time. The original Saint Maxime Church, the accompanying residence, and the church yard were once at the center of the park lot. There is always a chance historic burials associated with the church might be present.

Summary of Impacts

Preface

The County of Kauaʻi Department of Parks & Recreation (DPR) developed a 2021 Master Plan for Black Pot Beach Park. A Community Advisory Committee (CAC) contributed to the development of the plan, including some consultees of this study. The proposed park improvements are the implementation of the 2021 plan, which focuses on improvements that physically expand and open new areas to different and new users. There continues to remain challenges around the evolution of Black Pot Park as the planning and implementation of physical improvements has been decoupled from active management. This decoupling has been seen as a detriment to community use and has led to many of the potential cultural impacts identified in this section. While the physical construction of proposed improvements does not impact many cultural practices directly, the disconnect between physical improvements without management is the intersection of many community concerns and potential cultural impacts.

Impacts

Love for Black Pot Beach Park was evident during the course of this study. It is a treasured place that holds fond memories for generational families and newcomers alike.

While there are ongoing traditional practices enduring at Black Pot Beach Park, many worry the proposed improvements exacerbate the loss of use for residents and practitioners while increasing visitor capacity, further degrading resources (natural and cultural). Consensus among participants is that continued lack of management, coupled with expansion of amenities, will continue to degrade fisheries and negatively impact known and unknown iwi kūpuna.

It was shared by most participants that management at the park is currently lacking or passive. While there are rules regulating commercial activities, participants noted they are unenforced and are leading to resource degradation. The current proposed improvements maintain and possibly exacerbate that status quo.

One consultee specifically pointed out that cultural practitioners have made all the concessions at Black Pot, and commercial use has taken over, to the detriment of both the “resource” (Black Pot Beach Park) and its environment.

At least one practitioner felt that they had voiced their concerns about cultural impacts at the Focus Groups for the Master Plan (2021), but their concerns went unheard.

Consultees were *not* averse to the proposed improvements; however, they were opposed to the inherent expansion of the park with the proposed improvements without corresponding improvements to management. Recommendations for improved management came in various forms of community-based management strategies.

One working area model shared with us is the Lawaiʻa Pono; which after a long process is established in Hāʻena.

One participant voiced frustration over how gate access at Black Pot is shared with long time fisher people. Another participant echoed the challenges around gate and fishing access, and suggested forming a lawaiʻa hui, in partnership with the County. The same participant volunteered to help develop that hui, suggesting it could help manage access for fishermen and establish best practices

around fishing at Black Pot and its use. The same practitioner has experience with the Hāʻena Community Based Subsistence Fishing Area (CBFSA). While no consultees suggested Black Pot become a CBSFA, the process to get to best management could be a good model with the participation of experienced conveners who are also practitioners.

In 2021, a Master Plan was developed for Black Pot. The third 'Planning Goal' in the 2021 Master Plan aligns with many of the recommendations in this report, and if it is achieved, would mitigate impacts to cultural resources and practices as a result of the proposed project:

- Improve the user experience and user safety

Participants agreed that reductions in commercial use would improve user experience for all cultural practitioners, as well as for other locals and visitors alike. Overcrowding at the surf breaks on either side of the pier, interruptions in fish spawning, traffic for paddlers, vehicle crowding, and lack of access have discouraged, impacted, and prevented generational families and Native Hawaiian practitioners from using the area. Proposed park improvements were seen by consultees as an expansion of use and access to visitors and commercial interests. The Native Hawaiian traditional customary user experience will likely not be improved, and possibly be negatively impacted, as a result of proposed park improvements.

Research into past consultation (Maly & Maly 2003, Liborio et al 2017, KHS Hanalei Project boxes) as well as contemporary consultation made it clear that commercial activities have and continue to impact resources in Hanalei Bay, Hanalei River, and at Black Pot. One respondent would like to see more regulations that protect resources for future generations. As a 7+ generation family raised on the river, who've surfed the Bay, fished and crabbed for subsistence, told us, the lack of management and increase in commercial activities brings in other recreators who scrape resources without having to worry about stewarding them.

> "I think it should be a community thing, where the community should use it and not have the commercial activities impact."

High fecal bacteria counts from water testing offshore and in the River were mentioned by three participants. Old cesspools along the shore, heavy vacation rental use, and a growing population have reduced water quality. It was asked that more efforts be made to "...keep sewage out of the bay."

According to several participants, illegal parking is un-enforced, or little enforced. In addition, the visitor population is increasing rapidly (Master Plan for Black Pot Beach Park, 2021:33-34) without an increase in the management of visitation, most participants noted that proposed parking improvements were clearly an expansion of current informal parking, growing visitor capacity at Black Pot.

Lastly, a lack of management of ships utilizing the bay for summer and calm month anchorages is also minimal or non-existent. In sum, all participant feedback on impacts pointed to the percieved lack of management at Black Pot coupled with expansion of facilities, parking and amenities at which increases the potential for impacts to fishing grounds, spawning and sheltered area where pua (baby fish) feed and grow, surfing for local youth, families ability to gather, access for waʻa, whether club, sailing or education, etc.

All participants agreed that the expansion and proposed improvements to Black Pot Beach Park will create or increase negative impacts to Native Hawaiian traditional and customary practices

in some way, practices that have been ongoing and unbroken in the area since time immemorial, *if* the County fails to appropriately manage the park and the proposed improvements.

One participant shared,

> "I just want to see resources protected for future generations, and keep it [Black Pot] healthy and try to improve the conditions…"

There are many long-time, multi-generational active users of Black Pot who are also Native Hawaiian practitioners of traditional customary practices. These participants echoed the same sentiment for the improvement of Black Pot, to manage and improve the environment so future generations can kilo, fish, surf, sail, gather, and paddle there.

While at first reading the summary of impacts seems overwhelming. As we move on to the next section, it will be clear that there is also a lot of hope and ideas for positive change.

Recommendations

All consultees, while sharing impacts and carrying the heavy burden of witnessing resource degradation at Black Pot, also provided constructive mitigating strategies. The County can adopt some of these strategies to actively mitigate negative impacts to traditional and customary Native Hawaiian cultural practices. The larger Halele'a community has a record of multiple Hui from the 1800s to the present whom have implemented similar strategies that have proved effective to manage and improve conditions for natural and cultural resources along the Halele'a coast.

Hawaiian practitioners build pilina, create relationships, with a place, like Black Pot, over time, through kilo and time spent; by paddling, fishing, and surfing in a space. The flip side of building pilina is kuleana, the responsibility to then steward and care for that place. Because of the proposed expansion of parking and improvements at Black Pot, the lack of past management and (so far) perceived lack of contemporary and future management to accompany the proposed improvements, participants in this CIA worry that,

1) another generation of potential practitioners and stewards is being crowded out of Black Pot.

That crowding out of residents, kūpuna, and keiki prevents the next generation from growing a pilina with place through traditional practices. And that loss of connection reduces a generation of potential 'āina stewards, or kia'i. Without improved stewardship, participants in this CIA worry that,

2) The natural resources once abundant at Black Pot will continue to rapidly degrade, to the detriment of future generations.

It is critical for the County to work with the Native Hawaiian practitioners and kupa of this place to develop management strategies to go with the proposed park improvements, that uphold the first Planning goal of the Black Pot Master Plan (2021):

- **Improve management and protection of the resource**

While we use the word resource, as it is used in the 2021 "Master Plan for Black Pot Beach Park," consultees helped us identify throughout this study the natural and cultural resources that equate to a healthy environment. Stewardship of these resources will require limits on overcrowding and commercial use, active management, and fishing and recreational rules that likely will require visitor as well as local concessions to prioritize rest for the "resource."

The development of a Management Plan, as called for in the 2021 Master Plan, could include implementing many of the recommendations shared in this document in partnership with willing community members and partners. The development *and* implementation of a Management Plan for Black Pot Beach Park by DPR, that includes a section specific to the mitigation of impacts to cultural resources, practices and rights would be a key next step in addressing cultural impacts of the current project.

Stewardship

A clear request from consultees is for active park management, which could be collaborative. Recommendations included:

- Park staff who are from the area, who take pride in the place and are accountable to the community.

Manage Access & Intentional Use

- Ensure local residents have parking opportunities with managed visitor and resident parking.
- Ensure local residents who have an opportunity to park at Black Pot are not prevented from safely swimming or surfing by commercial over crowding
- Ensure safety during flood, tsunami or other disaster evacuation can be quick and efficient. Specifically focusing on how to manage visitor evacuation from choke places like Black Pot Beach Park with one way in and out (see shuttle service suggestions)
- Create spaces for community gathering – consistent with the original formation of Black Pot
    - One participant suggested a pavilion in the open area on the middle to east part of the park much like those at Anini or other parks.

Shuttle Service

- Actively manage capacity at Black Pot with a shuttle service and a reservation service for visitors
    - Ensures local and Native Hawaiian practitioners have access to the park through a reservation or shuttle service modelled off of the successful Hāʻena model. Or expanding the Hāʻena model.
    - Ensure that parking improvements at Black Pot are available for residents vs just expanding visitor and commercial use capacity.
    - Focus on increasing visitor shuttle use and reducing visitor driving into Hanalei and to Black Pot.
        - Could also decrease resident vehicles as well
    - Would play a critical role in managing evacuations during tsunamis (recently experienced), as well as floods and landslide events.
- If Black Pot Beach Park has a shuttle service, it was mentioned the other Hanalei Bay County parks should be considered as part of that planning to prevent negative spill over.

Waʻa

- Ensure Hanalei Canoe Club, as the founding Hawaiian canoe club at Black Pot, is able to continue to remain at Black Pot; keeping the tradition of paddling, driven by the Hawaiian families of Hanalei
    - The present-day Hanalei Canoe Club is on leased land that abuts the study area to the east. One participant, whose grandmother was a founding member of the club asked that the County consider in their Black Pot Beach Park improvement plans to keep the old Canoe Club space open as a future home for Hanalei Canoe Club; ensuring the founding canoes will always remain at Black Pot.
- Continue to allow space and permits for community activities like the recent Hoʻākea Waʻa event that allows traditional sailing practices to be taught and practiced at the shores of Mahamoku and Black Pot.
- Consider partnerships with traditional sailing groups on Kauaʻi for more regular sailing educational opportunities for children at Black Pot.
- Manage anchorage of ships off Black Pot to protect areas for canoe paddling and canoe sailing.

Manage Commercial Use

- Reduce commercial business use of the park to improve safety, health of marine ecosystem, and ability for cultural practices to continue.
- Enforce existing rules for commercial use, and re-evaluate the existing rules for effective protection of area resources.
- Establish consequences for commercial users who break rules.
- Manage anchorage of ships to protect spawning grounds.

Lawaiʻa

Participants in this study had several recommendations around caring for the fishery, including the rest days and reduced commercial use shared above.

- Creation of a lawaiʻa stewardship committee or hui to help establish best practices for fishing and fisheries.
    - Manage and improve access for area and generational fisher people to the area
    - Ensure fishing best practices
    - Create community accountability for management in partnership with the County
    - One participant volunteered to support this effort
- Manage over-fishing in the river

Rest Days

- One participant suggested establishing resource rest days at Black Pot, modelled after those being implemented at Keʻei in Hāʻena
    - Rest Days for clean water, for fish, for limu, and crabs.

More consultation could be conducted on what a rest day would look like. Several participants spoke about the advantages of resting a resource, whether from active fishing or just people walking or swimming over a place. Resounding feedback was for rest from commercial or motorized use of a space. The Hui Makaʻāinānā o Makana and The Hanalei Initiative, which manages the shuttle service at Hāʻena State Park in partnership with State Parks, have started implementing rest days, where non-residential visitor access and commercial access are closed. The goal is to protect resources that all visitors enjoy and value. Nohopapa Hawaiʻi asked the Hanalei Initiative if they would be open to discussions with County Parks about expanding shuttle service in the Hanalei Bay area, and leadership welcomed the opportunity.

Iwi Kūpuna

- A known iwi re-interment site exists at Black Pot. It has no signage or physical buffers to prevent pedestrians or vehicles from entering the area; both are asked to be included in planned improvements.
- Based on the location of the original LCA to John Brosseau, it is possible that the original St. Maxime Church footprint is in the same area. The Church's footprint should also be developed with utmost care.

In Sum

Black Pot was a famed and treasured place long before the visitor industry dominated Kauaʻiʻs economy. Our research and the generous stories shared by kūpuna past and current study participants have taught us that Black Pot was cherished and cared for because of:

- the abundant fishery of Hanalei Bay,
- the fishery of Hanalei River,
- the muliwai of Hanalei River,
- the fish spawning grounds around Hanalei Pier,
- the waʻa sailing and training grounds of Hanalei Bay,
- the Hanalei River Estuary, a choice launching off place to Nā Pali and Kona Moku,
- the birthplace of Hanalei Hawaiian Civic Club and Hanalei Canoe Club,
- the gathering places for generations of Hanalei ʻohana,
- the shore break surf for teaching youth,
- the point break surf ridden by generations immemorial of renowned water people,
- the sands of Mahamoku,
- the ʻili of Opukahi, and
- the famed shore lined limu grasses of Manuʻakepa.

A consensus shared by all participants is that an important Native Hawaiian traditional customary practice is for the kupa of a place to also care for that place. One of the meanings of kupa is to be well-acquainted, a kupa ʻāina is someone with a relationship to a certain place, a kupaʻāina, is a native born with a long attachment to that place. There was consensus from all participants, and even those who we spoke with who were unable to formally participate, that Black Pot was no longer a local place: it was no longer a place where kupa ʻāina felt welcomed, or that was conducive to growing new kupa to care for it. The expansion of parking and facilities, the proposed improvements, without managing visitors and ensuring resident access, is passively discouraging kupa and Native Hawaiian use.

Nohopapa Hawaiʻi encourages the consideration of the strategies shared by participants. The implementation of some of these active management strategies, addressing the identified *cultural impacts,* should be included and implemented concurrently with the proposed park improvements, in order to mitigate negative impacts on Native Hawaiian Traditional and Customary rights, practices, and resources. Low-hanging fruit would include:

1) County Parks staff meeting with consultees,
2) County working with local non-profits to expand north shore shuttle services, and
3) the active enforcement of commercial rules at Black Pot.

Recommendations that came from consultation specific to this Cultural Impact Assessment align with the 1st Planning Goal from the Black Pot Master Plan:

- **Improve management and protection of the resource**

It has been four years since the Black Pot Master Plan was developed to address physical park updates. Now, at this time, the County is conducting an EA to plan for park improvements, and participants in this CIA, some who participated in the master planning, expressed to us frustration that little to nothing had been done to further *management* challenges, exacerbated by physical improvements, that they have brought up, directly related to the long-standing exercising of cultural practices and rights at this special place. At least half of the community members we

spoke with shared a sense of urgency. It is recommended that a *Management Plan* for Black Pot Beach Park be created to ameliorate cultural impacts, a key section of that plan should specifically include mitigations of impacts to cultural resources, as identified by cultural practitioners in this document.

The extensive research and community interviews conducted indicate that a "no action" alternative to the Proposed Action does not exist. Because "no action" perpetuates a lack of management that continues resource degradation and loss of use and access at Black Pot. The no action alternative would therefore violate the State's and County's duties under Article XII section 7 to "protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778[.]"

All the places, resources, and practices shared in this study are unique and critically important Native Hawaiian traditional and customary aspects that are part of Black Pot Beach Park. No one participated in this study without offering mitigating solutions. Without active management by the County, that ensures the protection of resources in *tandem* with expansion and improvements, there *will* be negative impacts to Native Hawaiian traditional customary practices as a result of the proposed project. It is possible to mitigate negative impacts by working with Native Hawaiian practitioners towards active management at Black Pot Beach Park.

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Appendix A: Community Contact Letter

NOHOPAPA HAWAIʻI

January 2025

Welina mai me ke aloha,

On behalf of Group70 and the County of Kauaʻi, Nohopapa Hawaiʻi, LLC, is completing a Ka Paʻakai Framework Analysis and Cultural Impact Assessment (CIA to inform an Environmental Assessment (EA), project planning, and design for the County of Kauaʻi's (the County) Black Pot Beach Improvements Project, Hanalei Ahupuaʻa, Haleleʻa Moku, Kauaʻi, TMK: (4) 5-5-001:004.

The County is the project proponent and the landowner of the beach park. Proposed improvements to Black Pot Beach Park include the installation of two (2) new comfort stations, two (2) conjoined pavilions raised or mounded for flood protection, one (1) county storage facility a future canoe storage facility, as well as a new shower structure near the mauka comfort station (see attached map and current project plans). The project includes the removal of an existing canoe storage facility as well as the installation of lighting, fencing, gates, tables and furniture, smaller pavilions for picnic tables and public signage, landscaping, and parking barriers. At present an indeterminate, but significant amount of ground disturbance is anticipated.

The Nohopapa team would like to engage with individuals, ʻohana, and/or organizations with relationships to this area. In particular, we would like to understand potential impacts, if any, from the proposed park expansion as it relates to Native Hawaiian cultural practices, rights, and wahi kūpuna. The following are of particular interest in regards to understanding potential project impacts, but are not limited to:

- The practices in the river and on the ocean of waʻa (sailing and paddling), and surfing.
- Access and connectivity up the river, in the Bay and along the coast.
- Thoughts on a dedicated onsite re-internment area, and any knowledge of iwi kūpuna (does not need to be publicly shared) that may be impacted by activities in the project area.
- Lawaiʻa, modern and traditional, riverine, coastal, and in the ocean. This can include travel to and for, as well as in the immediate area
- Transmission, intergenerational use of the area.
- Recommended traditional & local strategies for resource management and conservation in Hanalei, particularly at the river mouth, bay and muliwai
- Traditional practices you or those you know engage with or have engaged with in the past and/or want to see restored in the future, and ways proposed improvements could impact them.
- Potential short and long-term impacts of the proposed project on Hawaiian cultural resources, rights, and traditional customary practices
- Recommended mitigations for the proposed project

Please let us know if you are interested in consultation for this project. You may participate virtually or in person, as an individual or group, named or *anonymously*.

Having explained the project above, we understand there are many community requests for consultation going around, and that all the regulatory language can be overwhelming. Here are some explanations of CIAs and Ka Paʻakai Framework Analysis. However, if this project is

important to you, please feel free to reach out with any and all questions about the project and/or what it means to actively participate in this process (contact information at the end of this letter).

Ka Paʻakai:
The purpose of the Ka Paʻakai Framework Analysis is to ensure the County of Kauaʻi is in compliance with Article VII, Section 7 of Hawaiʻi's Constitution, which "places an affirmative duty on the State and its agencies to preserve and protect traditional and customary native Hawaiian rights and confers upon the State and its agencies the power to protect these rights and to prevent any interference with the exercise of these rights."[1] In order to fulfill its constitutional obligation, the County must consider the following three considerations regarding possible impacts of their proposed actions

> (1) the identity and scope of 'valued cultural, historical, or natural resources' in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
>
> (2) the extent to which those resources—including traditional and customary native Hawaiian rights—will be affected or impaired by the proposed action; and
>
> (3) the feasible action, if any, to be taken … by the [State and/or its political subdivisions] to reasonably protect native Hawaiian rights if they are found to exist.[2]

Additionally, the Ka Paʻakai Framework Analysis requires the identification of appropriate mitigation measures ("reasonable" actions) that can be implemented to protect identified impacted resources and Native Hawaiian rights and practices associated with those resources.

Cultural Impact Assessment:
The project involves a County Special Management Area Permit (SMA) and possible Conservation District Use Permit (CDUP) for review by the Board of Land and Natural Resources. The CIA is triggered by the County undertaking, SMA Permit, and potential CDUP Permit, under Hawai'i Revised Statutes (HRS) §343 environmental compliance review *and* will inform an Environmental Assessment (EA).

Like Kapaʻakai, a CIA is one of the regulatory triggers that allow for Native Hawaiian voice and perspective to enter the planning and permitting process. A CIA is triggered by HRS §343, and becomes a public document as part of Environmental review process. Although the CIA does not have teeth, community input can help shape the project going forward. Impacts identified in the CIA will be reported in the EA which has a public engagement period.

Mahalo for your time and consideration. We look forward to collaborating with you to document your thoughts and recommendations.

Me ka haʻahaʻa,

Dominique Cordy -dominique@nohopapa.com, (808) 346-1586
Wailana Medeiros – wailanam@hawaii.edu, (808) 333-1893
www.nohopapa.com

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[1] Ka Paʻakai o Ka ʻĀina v. State of Hawaiʻi Land Use Com'n [*Ka Paʻakai*], 94 Haw. 31, 47, 7 P.3d 1068, 1084 (2000).
[2] Ibid



Figure 1. Map with aerial imagery depicting the proposed area of improvements at Black Pot Beach Park, based on 2021 Master Plan.

3



Figure 2. A draft layout of proposed Black Pot Beach Park Improvements, from the Conceptual Master Plan (2021). Note that engineers are reconfiguring some facility improvements based on the recent implementation of the sea level rise constraints district and flood zones at the park site. They are in the process of finalizing the layout, and input and mitigations derived from this consultation still has space in the process.

4

Appendix B: A Bill for Environmental Impact Statements

A BILL FOR AN ACT RELATING TO ENVIRONMENTAL IMPACT STATEMENTS [UNOFFICIAL VERSION] HOUSE OF REPRESENTATIVES H.B. NO. 2895 H.D.1 TWENTIETH LEGISLATURE, 2000, STATE OF HAWAIʻI

A BILL FOR AN ACT RELATING TO ENVIRONMENTAL IMPACT STATEMENTS. BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAIʻI:

SECTION 1. The legislature finds that there is a need to clarify that the preparation of environmental assessments or environmental impact statements should identify and address effects on Hawaiʻi's culture, and traditional and customary rights.

The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the "aloha spirit" in Hawaiʻi. Articles IX and XII of the state constitution, other state laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.

Moreover, the past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture.

The purpose of this Act is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices.

SECTION 2. Section 343-2, Hawaiʻi Revised Statutes, is amended by amending the definitions of "environmental impact statement" or "statement" and "significant effect", to read as follows:

"Environmental impact statement" or "statement" means an informational document prepared in compliance with the rules adopted under section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic [and] welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

The initial statement filed for public review shall be referred to as the draft statement and shall be distinguished from the final statement which is the document that has incorporated the public's comments and the responses to those comments. The final statement is the document that shall be evaluated for acceptability by the respective accepting authority.

"Significant effect" means the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State's environmental policies or long-term environmental goals as established by law, or adversely affect the economic [or] welfare, social welfare[.], or cultural practices of the community and State.

SECTION 3. Statutory material to be repealed is bracketed. New statutory material is underscored.

SECTION 4. This Act shall take effect upon its approval. Approved by the Governor as Act 50 on April 26, 2000.

Appendix B: Act 50 [State of Hawai‘i 2000]

Act 50 [State of Hawai‘i 2000]. H.B. NO. 2895 H.D.1 was passed by the 20th Legislature and approved by the Governor on April 26, 2000 as Act 50. The following excerpts illustrate the intent and mandates of this Act:

The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the “aloha spirit” in Hawai‘i. Articles IX and XII of the State constitution, other State laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.

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Appendix G

Traffic Assessment

Fehr & Peers

Memo

Date: October 27, 2025

To: Kira Ramos, Kawika McKeague, Ryan Char, and Peter Mow; G70

From: Sohrab Rashid, Amir Reza Sadeghi, Lydia Rowen

Subject: Black Pot Beach Park Master Plan – Parking and Circulation Assessment

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Introduction

Fehr & Peers has completed an evaluation of the proposed Master Plan site improvements for Black Pot Beach Park in the community of Hanalei on island of Kauaʻi. These improvements include formalizing the parking area located mauka of Weke Road and north of Wilikoki Place, as well as providing a new comfort station and open-air pavilion overlooking the Hanalei River. The local site context, current parking demand, and results of our evaluation are presented in this memorandum.

Existing Conditions

Site Context

Black Pot Beach Park is a County-maintained park comprised of 13.7 acres located in the community of Hanalei at the north end of Weke Road near the mouth of the Hanalei River. The park is a popular location for local residents and visitors to Kauaʻi providing an idyllic beach setting with a world-class surf break and mountain and ocean views. The park is located at the end of 1.5-mile-long white sand beach and includes a large grass area adjacent to the beach with a comfort station and access to historic Hanalei Pier. The remainder of the park includes designated vehicle parking west and east of Weke Road, a commercial boat ramp, a canoe halau, and a public boat ramp area and informal parking/circulation areas in the easternmost part of the site.

The park entrance is located at the north end of Weke Road and is an approximate 0.75-mile walk from Kuhio Highway in Hanalei town. Weke Road is a two-way street with roughly 20 feet of pavement just south of its intersection with Wilikoki Place. Wilikoki Place extends for approximately 850 feet along the southern edge of the park. Neither roadway includes formal paths or sidewalks for pedestrian travel, and no designated bicycle facilities are provided in the area. The posted speed limit on Weke Road is 20 mph, but no speed limit signs are posted on Wilikoki Place. **Figure 1** illustrates the location of the beach park and adjacent site context.



Figure 1
Study Location

Existing Parking Access and Supply

The existing parking area accessed directly from the extension of Weke Road north of Wilikoki Place includes space for approximately 65 vehicles to park, although this number can vary slightly depending on how close vehicles park to one another since spaces are not striped. This area generally operates with one-way circulation and includes a combination of perpendicular and parallel parking spaces. This parking area is located north of a formal, one-way loading zone with counterclockwise circulation. This zone allows park visitors and beachgoers to load and unload passengers and/or cargo prior to parking their vehicle.

The parking area along Wilikoki Place includes roughly 100 spaces (based on aerial imagery) with primarily perpendicular and some parallel spaces, although this capacity can vary similar to the Weke Road lot. This combined with the makai lot results in a total of roughly 165 parking spaces within the designated parking lots. Additional parking does occur in the eastern portion of the park outside the designated parking areas that are identified by low-height vinyl fencing. This open area also accommodates parking for vehicles trailers using the public boat ramp. Access to this parking lot is provided two driveways on Wilikoki Place, with one located roughly 50 feet east of Weke Road and another approximately 100 feet further east. This parking area can also be accessed via an opening at its east end that connects to Wilikoki Place providing access

No parking signs prohibiting on-street parking are included along Black Pot Beach Park frontage of both Weke Road and Wilikoki Place, however, no signs are posted on the other side of each street. Given the narrow width of Weke Road, vehicles should park with their wheels off the roadway to maintain a desired minimum emergency access width of 20 feet. However, many of the shoulder sections on Weke Road are narrow, and field observations and recent Google Street View images show vehicles encroaching into the vehicle traveled way. Vehicles do not typically park on Wilikoki Place due to the narrow shoulder width of roughly two (2) to three (3) feet.

Existing Parking Demand

To quantify the existing parking demand and the variation by hour over the course of a midweek weekday (i.e., a Tuesday, Wednesday, or Thursday) and a weekend day, Fehr & Peers conducted a count of parked vehicles within the beach park lots on Thursday February 13, 2025, and Saturday February 15, 2025. The Saturday count occurred on President's Day weekend and was expected to result in higher demand as compared to other typical Saturdays during the year (i.e., those Saturdays without a special event such as an outrigger canoe race or surf competition). In addition, all vehicles within the park boundaries were counted including in the eastern portion of the park where no formal parking areas are defined. The count was conducted by counting the initial number of vehicles parked in the lots at 7:00am each day and then counting the number of inbound and outbound vehicles on Weke Street south of Wilikoki Place. Each outbound trip was assumed to account for one less parked vehicle, and each inbound trip was assumed to account for another parked vehicle.

The results of the Thursday parking counts showed that the peak demand of 232 vehicles occurred at 1:10pm, and the demand first exceeded the 165-vehicle designated lot supply at 10:45am. The demand exceeded 90% of the peak demand between 12:15pm and 2:30pm. The total demand did not drop below 165 vehicles until just before 6:30pm.

The Saturday parking demand exceeded the 165-space supply within the designated lots just after 10:00am and peaked at 12:45pm with a total of 295 vehicles parked on site. The overall demand

consistently met or exceeded 265 vehicles (i.e., 90% of the peak demand) between 11:35am and 3:15pm, and did not drop below 165 vehicles until 5:40pm.

Because the method by which the vehicles were counted traveling into and out of the site, the demand numbers cited above are considered conservative in that they include vehicles that:

- circulate through a lot but do not actually park in a designated space (e.g., the commercial shuttles),
- vehicles that circulate through a lot but do not find an available or desirable space and leave,
- vehicles with trailers that simply load or unload watercraft and then leave the site, and
- vehicles traveling to and from other destinations with vehicle access from Weke Road or Wilikoki Place and their own parking areas (e.g., Na Pali Coast Hanalei Tours, several private residences, and Hanalei Canoe Club)

As such, the actual peak number of parked vehicles associated with the beach park is estimated to be lower than the Thursday and Saturday demand numbers cited above. Based on field observations, it is estimated that the additional vehicles likely resulted in a calculation of 30 to 40 additional parking spaces. This means that the peak Thursday demand was probably closer to 200 vehicles, and the peak demand was closer to 250 vehicles. Both of these levels still notably exceed the existing designated lot supply of 165 spaces, but they are more reflective of the actual parking demand generated by the beach park at peak times on Thursday and Saturday.

While a formal count of parked vehicles on Weke Road south of Wilikoki Place was not conducted, it is estimated that an additional five (5) to ten (10) vehicles were associated with the beach park on Thursday and Saturday, respectively. This number likely varies depending on the overall demand within the parking lots adjacent to the beach and along Wilikoki Place.

Additional Parking and Circulation Input

The Community Advisory Committee (CAC) for the Black Pot Beach Park Master Plan Improvements project noted several issues during their October 24, 2024 meeting:

- Members all noted that parking is an issue with the popularity of the park.
  - Improvements will potentially decrease the amount of parking available. Many beach/park users park in any area that is open and with the improvements completed, these areas will no longer be available for parking.
  - There is a general need to balance parking and open/green space at the park.
  - The old canoe club area could serve as a parking space, however, other members noted this is an essential space for canoe club users to access the river and may serve as a barrier for accessibility.
  - At previous meetings, resident only parking was explored to allow families and residents with access to the park. Additionally, Hanalei Initiative Shuttle Service was explored to address parking limitations at the park.
- Overflow parking has extended to Wilikoki Road causing issues for boaters to enter/exit Weke Road without hitting parked cars. Appropriate signage and enforcement for overflow parking on Wilikoki Road is needed.
- Several tour buses have been utilizing the roundabout at Weke Road causing major traffic disruptions.

- Members expressed concerns with existing park signage and its confusion which has caused conflict amongst park users. Improvements to park signage are needed.

In addition, several community members also provided the following input:

- Weekends are busier than weekdays unless the weather is unsuitable for surfing.
- The weather is also a factor in demand at Black Pot Beach Park. With good weather, demand is spread across several beaches and parking lots around Hanalei Bay. With windier or less ideal conditions, many people choose to go to Black Pot because it provides better shelter and surfing conditions.
- In general, people do not park on Weke Street during weekdays, but on select weekend days some drivers will park on the street even if space is available in the eastern portion of the lot. The closer spaces on the street are more attractive.
- Signage can be confusing such as along Wilikoki Place where some people have interpreted the on-street prohibition signs as referring to the space behind the vinyl fence.
- Parking along Weke Road can include as many as 20 vehicles, and individuals have placed cones and signs in an effort to discourage on-street parking, even thought it is legally permitted (provided vehicles do not encroach into the roadway)
- Enforcement of designated spaces for surf instructors, lifeguards, shuttles, etc. should be regularly enforced.
- On-street parking also causes issues when it forces people carrying beach items (e.g., chairs, coolers, etc.) or surfboards to walk in the roadway and conflict with moving vehicles

Proposed Master Plan Improvements

G70 provided a site plan of the proposed park improvements to Fehr & Peers on May 29, 2025 that illustrates the proposed modifications to the existing parking lot east of Weke Road and the new comfort station and open-air pavilion located in the eastern portion of the park. This configuration is known as Alternative 3 and a copy of this plan is included as **Figure 2**.

Vehicle and Pedestrian Access

The primary access changes to the Wilikoki Place parking area include provision of a new driveway at the west end of the lot opposite the entrance to the loading zone. This new two-way driveway will give drivers the option to enter this lot or continue north into the lot makai of the Weke Road extension. A second two-way driveway providing access to this lot is proposed on Wilikoki Place approximately 400 feet west of Weke Road. Both of the existing driveways on Wilikoki Place within 175 feet east of Weke Street will be eliminated to maximize the number of spaces within the lot. The fence opening providing access to the boat ramp area east of the new comfort station is expected to be maintained. Signage should be provided at the Weke Road/Wilikoki Place intersection indicating where the vehicle entrances to the lot are located, and a second sign should be placed at the Wilikoki Place driveway indicating additional parking is available via the boat ramp driveway.

Pedestrians walking to and from their vehicles parked within the reconfigured (i.e., east) lot will be guided towards the existing crosswalk that will connect at the southwest corner of the lot. This crosswalk extends across the raised median in the loading zone. To highlight the crosswalk more to drivers, we recommend installation of warning signs on both approaches to the crosswalk indicating the presence of pedestrians and the need to travel slower through this area.

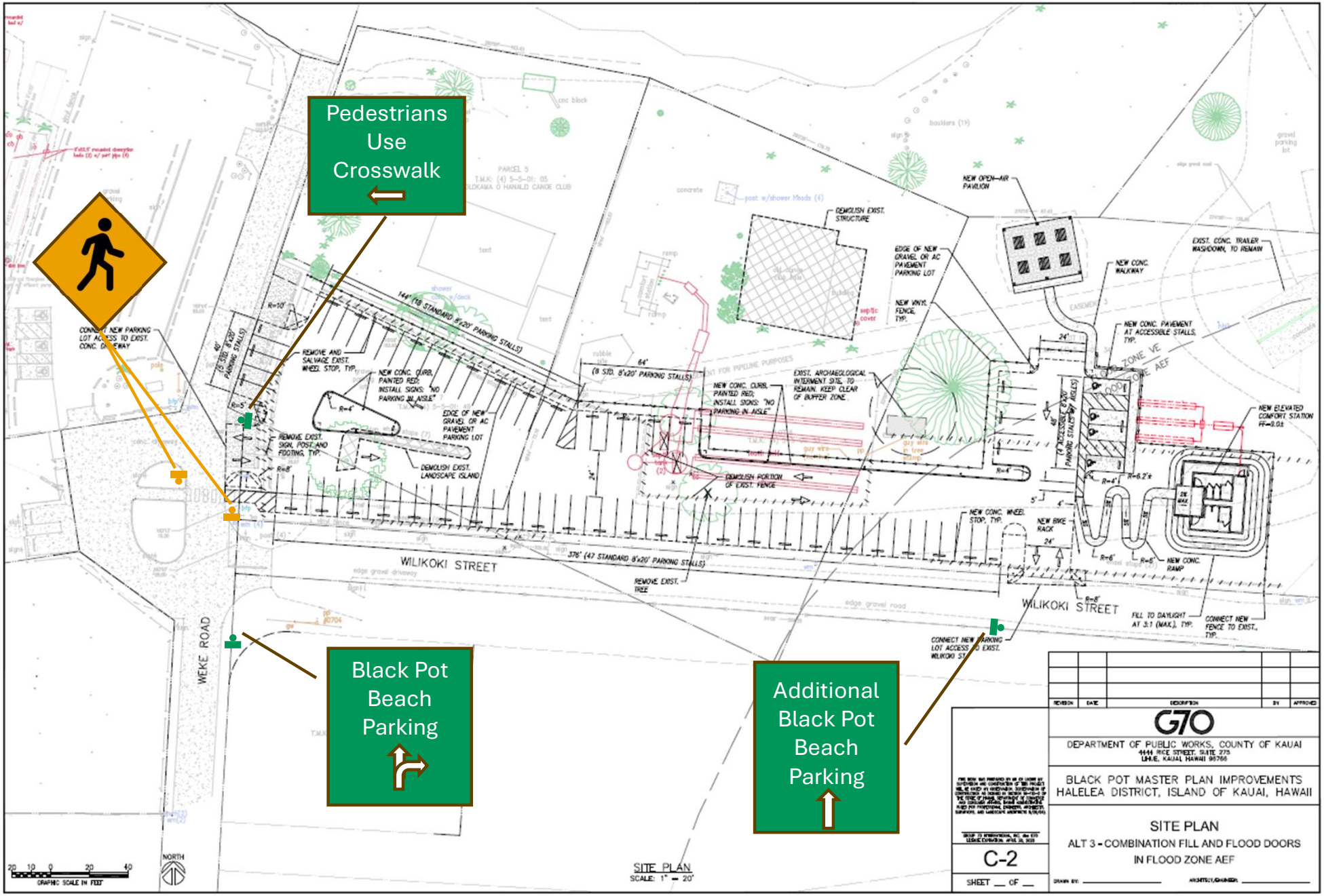


Figure 2

Site Plan and Signage Recommendations

Parking Supply and Demand

The lot itself will be paved with hardened material and signs will be installed within the lot to clearly indicate that parking is prohibited in aisles and against the raised median island located in the western portion of the lot. A new extension of the lot at the east end will be provided to include 10 total spaces, of which four (4) will be designated as wheelchair accessible. From this extension, concrete walkways and ramps will be constructed to provide access to a new comfort station and a new open-air pavilion. In addition, a new bicycle rack will be installed adjacent to the comfort station to allow secure bicycle storage.

With the reconfigured lot, a total of 88 spaces will be provided. With the existing beach lot that has 65 spaces, a total of 153 spaces will be available with the proposed improvements. This represents a slight reduction of 12 spaces from the existing 165-space formal supply, which is expected to result in more demand for parking in the vicinity of the boat ramp area in the eastern portion of the park site where spaces are not defined. In addition to the recommended signage regarding access, signs on Wilikoki Place should indicate "No Parking on Street" to clarify where parking is prohibited.

The suggestion to allocate a minimum number of parking spaces for residents has been provided at other community forums and was documented in the North Shore Mobility Analysis prepared by Fehr & Peers for The Hanalei Initiative. Implementation of such a program requires the introduction of a manual process where an individual would need to check the identification of drivers/passengers parking a vehicle or some automated process that involves license plate recognition and/or production of a receipt that could be displayed. DPR could craft and implement a parking management strategy, such as a "resident only" parking program or a similar program, to improvement management at the park.