DEPARTMENT OF DESIGN AND CONSTRUCTION
KA 'OIHANA HAKULAU A ME KE KĀPILI
CITY AND COUNTY OF HONOLULU

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915786

January 25, 2024

Ms. Mary Alice Evans, Director
Office of Planning and Sustainable Development
Department of Business, Economic Development and Tourism
Environmental Review Program
State of Hawai'i
235 South Beretania Street, Suite 702
Honolulu, Hawai'i 96813

Dear Ms. Evans:

Subject: Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA/AFONSI)
Waimānalo Beach Park Improvements
41-741 Kalaniana'ole Highway, Ko'olaupoko District, Island of O'ahu
Tax Map Key: (1) 4-1-003:016, 019, 020, and 040

With this letter, the Department of Design and Construction hereby transmits the subject Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA/AFONSI) for the subject action for publication in the next issue of the periodic bulletin, *The Environmental Notice,* on February 8, 2024.

The required publication forms and files, including an electronic copy of the DEA/AFONSI in PDF format, have been provided via the online submission platform. Concurrently with the electronic filing, and as required by HAR § 11-200.1-5(e)(1)(B), printed copies of the DEA/AFONSI have been submitted to the Waimānalo Public and School Library and Hawai'i State Library Documents Center.

Publication of the DEA/AFONSI in *The Environmental Notice* initiates a 30-day public comment period for the public to provide comments regarding potential effects of the proposed action.

Should there be any questions, contact Bonnie Tung at 808-768-8451, or DDCFD@honolulu.gov.

Sincerely,

FOR Haku Milles, P.E., LEED AP
Director

HM:ln

Enclosures

From: webmaster@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Wednesday, January 31, 2024 4:42:56 PM

Action Name

Waimānalo Beach Park 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

Koʻolaupoko, Oʻahu

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

(1) 4-1-003:016; 019; 020; and 040

Action type

Agency

Other required permits and approvals

Special Management Area Permit, Major; HRS § 6E Historic Preservation Review; Zoning Waiver; Building

Proposing/determining agency

City and County of Honolulu, Department of Design and Construction

Agency contact name

Bonnie Tung

Agency contact email (for info about the action)

DDCFD@honolulu.gov

Email address or URL for receiving comments

makena@psi-hi.com

Agency contact phone

(808) 768-8451

Agency address

650 South King Street, 9th Floor
Honolulu, HI 96813
United States
Map It

Was this submittal prepared by a consultant?

Yes

Consultant

Planning Solutions, Inc.

Consultant contact name

Makena White

Consultant contact email

makena@psi-hi.com

Consultant contact phone

(808) 550-4538

Consultant address

711 Kapiʻolani Boulevard Suite 950
Honolulu, HI 96813
United States
Map It

Action summary

The City is proposing improvements at Waimānalo Beach Park to continue to provide the Waimānalo community with facilities that support recreation. Park improvements are needed because existing and/or former facilities at the park have deteriorated or been removed due to age, weathering, vandalism, and other factors. For example, a pavilion, constructed in 1960, and dedicated to the memory of Gabby "Pop" Pahinui had to be removed in 2019 because it had become a safety concern.
Proposed improvements include the construction of a new pavilion that would be very similar to the former pavilion, the replacement of the two comfort stations, the restoration of the crafts building, and the periodic replacement of other existing park facilities as they wear out or are damaged.
A public meeting regarding the project will be held on Wednesday, February 21, 2024, from 6:30 p.m. to 8:30 p.m. at Waimānalo District Park Gymnasium.

Reasons supporting determination

The Department of Design and Construction is issuing an Anticipated Finding of No Significant Impact, based on the analysis of significance criteria provided in Chapter 5 of the DEA/AFONSI.

Attached documents (signed agency letter & EA/EIS)

- DEA-WaimanaloParkImproves.pdf

Action location map

- Waimanalo-Beach-Park-Pavilion.zip

Authorized individual

Jim Hayes

Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this submission.

DRAFT ENVIRONMENTAL ASSESSMENT & ANTICIPATED FINDING OF NO SIGNIFICANT IMPACT, WAIMĀNALO BEACH PARK IMPROVEMENTS

PREPARED FOR:
City and County of Honolulu
Department of Design and Construction

PREPARED BY:
PLANNING SOLUTIONS

FEBRUARY 2024

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LIST OF ACRONYMS

AFONSI	Anticipated Finding of No Significant Impact
AIS	Archaeological Inventory Survey
ALRFI	Archaeological Literature Review and Field Inspection
AM	Archaeological Monitoring
AMP	Archaeological Monitoring Plan
BFE	Base Flood Elevation
BMP	Best Management Practice
CCH	City and County of Honolulu
CIA	Cultural Impact Assessment
CRM	Concrete Reinforced Masonry
CZM	Coastal Zone Management
DEA	Draft Environmental Assessment

DDC	Department of Design and Construction
DHHL	Department of Hawaiian Home Lands
DLNR	Department of Land and Natural Resources
DOFAW	Division of Forestry and Wildlife
DPP	Department of Planning and Permitting
DPR	Department of Parks and Recreation
EA	Environmental Assessment
EHSCP	East Honolulu Sustainable Community Plan
EIS	Environmental Impact Statement
ERP	Environmental Review Program
FEA	Final Environmental Assessment
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HAR	Hawai‘i Administrative Rules
HCC	Honolulu City Council
HCCMAC	Hawaii Climate Change Mitigation and Adaptation Commission
HDOH	State of Hawai‘i, Department of Health
HDOT	State of Hawai‘i, Department of Transportation
HEPA	Hawai‘i Environmental Policy Act
HICRIS	Hawai‘i Cultural Resources Information System
HPD	Honolulu Police Department
HRS	Hawai‘i Revised Statutes
IBC	International Building Code
IPCC	Intergovernmental Panel on Climate Change
IRC	International Residential Code
IWS	Individual Wastewater System
KPSCP	Ko‘olau Poko Sustainable Communities Plan
LCA	Land Commission Award
LUO	Land Use Ordinance
MSL	Mean Sea Level
NOAA	National Oceanographic and Atmospheric Agency
NSSCP	North Shore Sustainable Community Plan
PSI	Planning Solutions, Inc.
ROH	Revised Ordinances of Honolulu
SHPD	State Historic Preservation Division
SIHP	State Inventory of Historic Places
SLR	Sea Level Rise

SLR-XA	Seal Level Rise Exposure Area
SMA	Special Management Area
SMP	Special Management Area Permit
TMK	Tax Map Key
UBC	Uniform Building Code
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
WCC	Windward Community College

1 INTRODUCTION

1.1 PURPOSE AND NEED

The City and County of Honolulu (CCH or City) Department of Design and Construction (DDC), on behalf of the Department of Parks and Recreation (DPR), is proposing improvements at Waimānalo Beach Park. The Waimānalo Beach Park is in Waimānalo, Koʻolaupoko, Oʻahu, Hawaiʻi on tax map key (TMK) Nos. (1) 4-1-003:016, 019, 020, and 040 (Figure 1-1). The bulk of the park is on TMK 4-1-003:040 (roughly 29.1 acres); the other parcels are small (roughly 0.44 acre), surrounded by parcel 40, and in the vicinity of the eastern parking lot near the campground.

The purpose of the proposal is to continue to provide the Waimānalo community with recreational opportunities and the facilities that support them. Park improvements are needed because existing and/or former facilities at the park have deteriorated or been removed due to age, weathering, vandalism, and other factors. For example, a pavilion, constructed in 1960, and dedicated to the memory of the renowned musician and ambassador of Hawaiian culture, Gabby "Pop" Pahinui had to be removed in 2019 because it had become a safety concern due to declining structural integrity. In addition, the existing comfort stations are deteriorating, which has required the closure of the men's side of the comfort station near the campground.

The proposed improvements would be used for a range of recreational activities at Waimānalo Beach Park in a manner consistent with the area's P-2 General Preservation zoning (Figure 1-2) and other applicable land use rules and regulations (e.g., the Land Use Ordinance and shoreline setbacks).

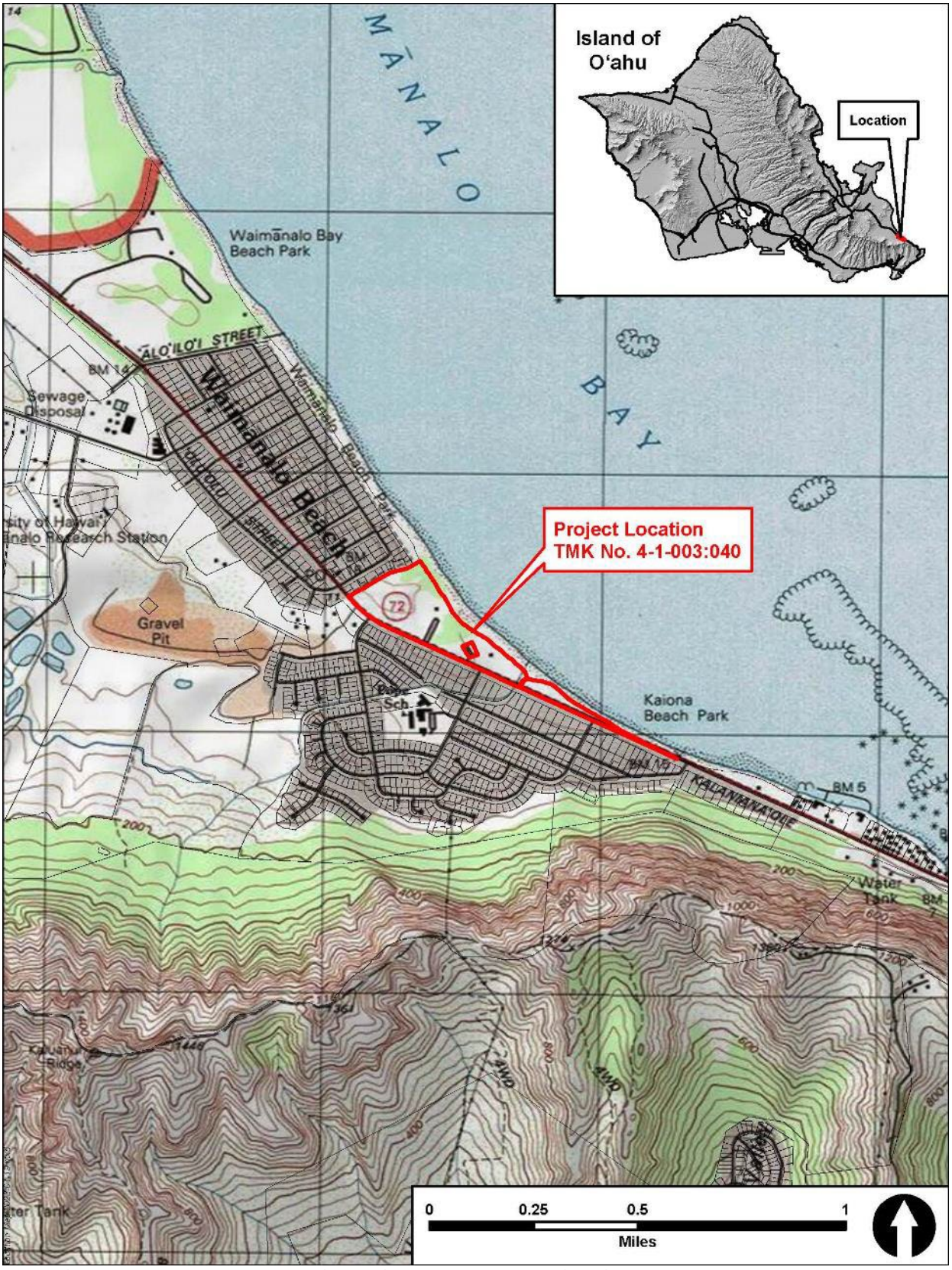
1.2 ENVIRONMENTAL ASSESSMENT TRIGGER

Chapter 343, Hawaiʻi Revised Statutes (HRS Chapter 343), specifically HRS 343-5, states: "[e]xcept as otherwise provided, an environmental assessment (EA) shall be required for actions that: (a) Propose the use of state or county lands or the use of state or county funds." The proposed project involves the use of state and CCH land – TMK Nos. (1) 4-1-003:016, 019, and 020 are owned by CCH and TMK No. (1) 4-1-003:040 is owned by the Department of Hawaiian Home Lands (DHHL). The proposed project also involves the expenditure of CCH funds. Therefore, HRS Chapter 343 is triggered.

In addition, Waimānalo Beach Park is entirely within the Special Management Area (SMA) (Figure 1-3) and "development" requires an SMA Permit (SMP), pursuant to Revised Ordinances of Honolulu (ROH) Chapter 25. The proposed improvements are considered "development" per ROH Chapter 25. Because the total value of the proposed development is greater than $500,000, a SMP Major issued via Resolution by the Honolulu City Council (HCC) is triggered. As part of the process to obtain an SMP Major, pursuant to ROH Chapter 25-3.3(c), the proposed project must first prepare an EA.

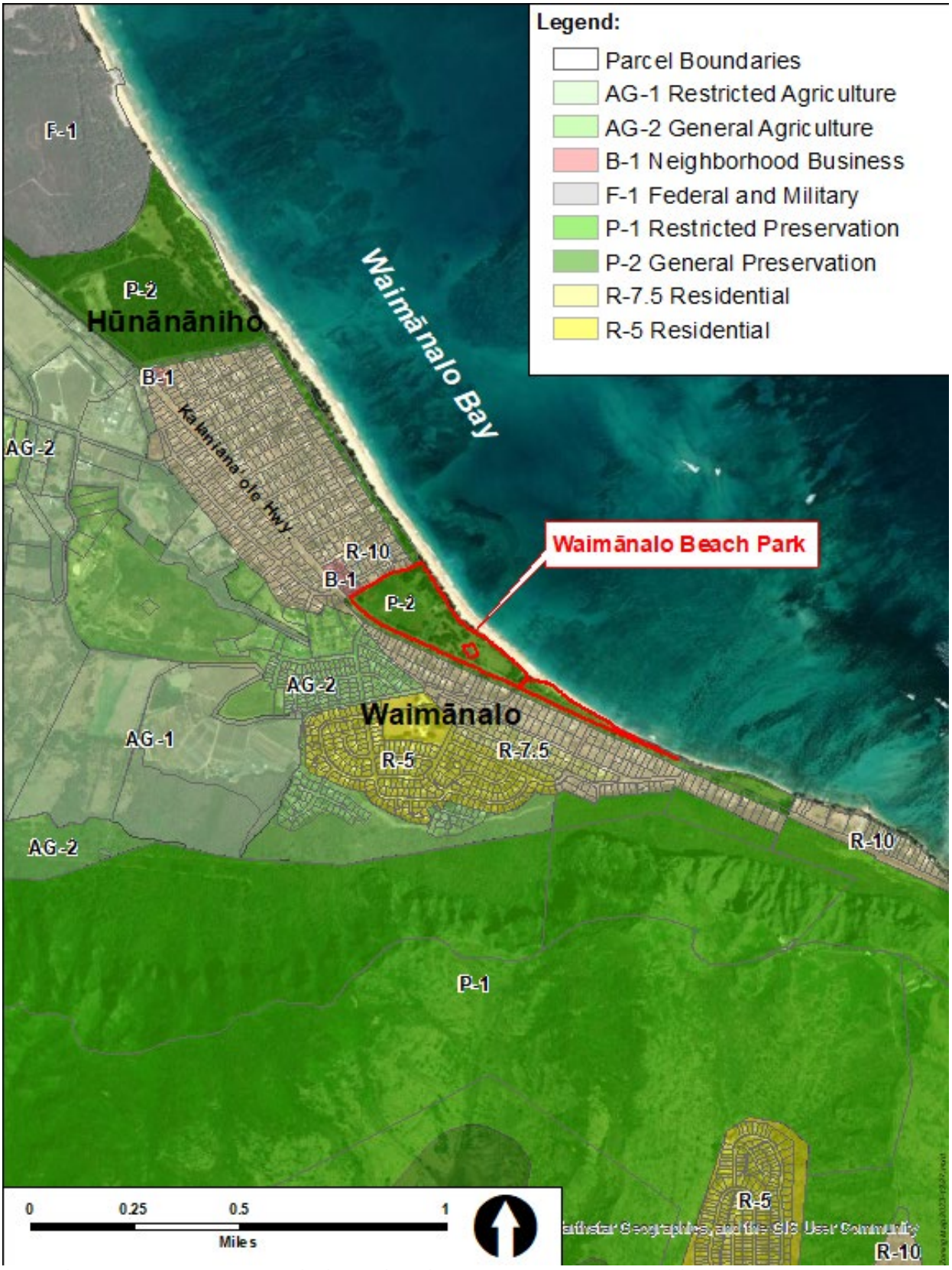
This EA has been prepared in accordance with the requirements of HRS Chapter 343 and its implementing regulations contained in Hawaiʻi Administrative Rules (HAR), Title 11, Chapter 200.1, as well as ROH Chapter 25. The EA will support a future SMP Major application.

Figure 1-1: Location Map



Source: Planning Solutions, Inc., USGS map, and City and County of Honolulu GIS shapefiles.

Figure 1-2: Zoning Map



Source: Planning Solutions, Inc., Google Earth (photograph dated August 2022), and County of Honolulu TMK maps.

Figure 1-3: SMA Map

Source: Planning Solutions, Inc.

1.3 EARLY CONSULTATION

Pursuant to HAR § 11-200.1-18(a), the City has sought to:

> *"conduct early consultation seeking, at the earliest practicable time, the advice and input of the county agency responsible for implementing the county's general plan for each county in which the Proposed Action is to occur, and consult with other agencies having jurisdiction or expertise as well as those citizen groups and individuals that the proposing agency or approving agency reasonably believes may be affected."*

Early consultation efforts are outlined in the sections below. Initially, the proposed project consisted solely of replacing the former pavilion at the park; the scoping materials included in Appendix A and Appendix B reflect that. The most substantial outcome of the early consultation efforts was that the proposal was expanded to include other park improvements, most notably replacement of the comfort stations.

1.3.1 SCOPING LETTER

On January 27, 2023, Planning Solutions, Inc. (PSI), acting on behalf of DDC, sent letters to the agencies and individuals identified in Table 1-1. All responses received were considered during the preparation of this EA. PSI contacted all those who responded to confirm that their input had been received and substantive comments would be addressed in this Draft EA (DEA). The scoping letter, any comments received, and responses to them are contained in Appendix A of this report.

Table 1-1: Early Consultation Letter Recipients

Level	*Department*	*Division*	*Recipient*	*Response*
Federal	Interior	Fish and Wildlife Service	Aaron Nadig, Island Team manager	--
State of Hawai'i	Department of Business, Economic Development and Tourism (DEBDT)	Office of Planning and Sustainable Development	Scott J. Glenn, Director	Yes
State of Hawai'i	Office of Hawaiian Affairs	--	Sylvia Hussey, CEO	--
State of Hawai'i	Department of Land and Natural Resources (DLNR)	Land Division	Russell Y. Tsuji, Administrator	--
State of Hawai'i	DLNR	Division of Forestry and Wildlife (DOFAW)	David Smith, Administrator	--
State of Hawai'i	DLNR	Office of Conservation and Coastal Lands (OCCL)	Michael Cain, Administrator	--
State of Hawai'i	Department of Hawaiian Home Lands		Ikaika Anderson, Chairman Designee	Yes

Level	*Department*	*Division*	*Recipient*	*Response*
CCH	DPP	--	Dawn Takeuchi Apuna, Director	Yes
Private (neighbor)	--	--	IHA Holdings 434-13 LLC	--
Private (neighbor)	--	--	Thomas M. De Harne Andrea M. Peters	--
Private (neighbor)	--	--	Lahela Kamalani-Moe	--
Private (neighbor)	--	--	Lindsey/Jessica Dymond Fam Tr	--
Private (neighbor)	--	--	Amy V. Condon	--
Private (neighbor)	--	--	Renee M A Anderson Tr	--
Private (neighbor)	--	--	Raymond W Lum Tr	--
Private (neighbor)	--	--	Frederick M Mattson, II TR Erin M H Mattson, Gay Ann K O Mattson	--
Private (neighbor)	--	--	Chino's LTD, Attn: Raymond W Lum	Yes
Private (neighbor)	--	--	Chino's LTD, Seven-Eleven (Hawai'i) Inc.	--
Private (neighbor)	--	--	Nalo Ohana LLC	--
Private (neighbor)	--	--	Sharon M Kanahele	--
Private (neighbor)	--	--	Gregory T. Martin	--
Private (neighbor)	--	--	Ikaika Rogerson	--
Private (neighbor)	--	--	Steven K Keawe	--
Private (neighbor)	--	--	William W Kekauoha, Jr.	--
Private (neighbor)	--	--	Sophie Kauhi	--
Private (neighbor)	--	--	Claude H Kane	--
Private (neighbor)	--	--	Bert O Dement	--
Private (neighbor)	--	--	Herman K Widemann Noreen Widemann	--
Private (neighbor)	--	--	Robert S Akau, Jr.	--
Private (neighbor)	--	--	Myrna T Colbert	--
Private (neighbor)	--	--	Lynnette L Kanoa	--
Private (neighbor)	--	--	Mary J Hong	--
Private (neighbor)	--	--	Michelle L Spencer	--
Private (neighbor)	--	--	Daisey P Moses Dawn K Apo	--
Private (neighbor)	--	--	Manuel Kupahu	--
Private (neighbor)	--	--	Job M B Harris	--
Private (neighbor)	--	--	Tor H Kamai Rodrigues	--
Private (neighbor)	--	--	Haunani K M Bush	--
Private (neighbor)	--	--	Ryan L Kauahikaua	--
Private (neighbor)	--	--	Joseph W L Kaakua	--
Private (neighbor)	--	--	George M Joy	--
Private (neighbor)	--	--	Kennekth K Afong	--
Private (neighbor)	--	--	Winston N A Kong	--
Private (neighbor)	--	--	Leroy N Enos	--

Level	*Department*	*Division*	*Recipient*	*Response*
Private (neighbor)	--	--	Ellen L Aiona Dolan Dela Pena	--
Private (neighbor)	--	--	Manuel Ramos, Jr.	--
Private (neighbor)	--	--	Peter K P Albino, Jr.	--
Private (neighbor)	--	--	Miu Lang P M Vaovasa	--
Private (neighbor)	--	--	Wilson K Ho	--
Private (neighbor)	--	--	Hubert J Kanaha	--
Private (neighbor)	--	--	Liane N Ching	--
Private (neighbor)	--	--	Henry C Kassebeer, Jr.	--
Private (neighbor)	--	--	John C K Kong Kee	--
Private (neighbor)	--	--	Rodney K Choy Foo, Jr.	--
Private (neighbor)	--	--	Charles K Hekekia, Jr.	--
Private (neighbor)	--	--	Susan M Pelekai	--
Private (neighbor)	--	--	Leilani Apana Carolyn Apana	--
Private (neighbor)	--	--	Le Vaughn O Kaopio	--
Private (neighbor)	--	--	Kathleen K Joseph	--
Private (neighbor)	--	--	Juliette Kassebeer	--
Private (neighbor)	--	--	Michael O Kahiapo	--
Private (neighbor)	--	--	Wayne P Achong Victoria K DeSilva	--
Private (neighbor)	--	--	Bobby T Hare	--
Private (neighbor)	--	--	Helen K H Kidder Kenneth Kidder	--
Private (neighbor)	--	--	Robbie I Richardson-Ortiz	Yes
Private (neighbor)	--	--	Sharon-Lee M Apo	--
Private (neighbor)	--	--	Herbert Kaniaupio, III c/o Gina Kaniaupio Poa Carter L K Spencer	--
Private (neighbor)	--	--	Lani Ann Kauanoe	--
Private (neighbor)	--	--	Elaine Kiko	--
Private (neighbor)	--	--	Leighton S Ohera	Yes
Private (neighbor)	--	--	Russ K Kauahikaua	--
Private (neighbor)	--	--	Milton M Akiona, Jr.	--
Private (neighbor)	--	--	Joetta Mae N Velasco Quinn I Velasco	--
Private (neighbor)	--	--	Matthew M Ayers	--
Private (neighbor)	--	--	Beverly K Akiona	--
Private (neighbor)	--	--	Aaron K Kane	--
Private (neighbor)	--	--	Noralei A Stant	--
Private (neighbor)	--	--	Elizabeth L Makua Sam Makua	--
Private (neighbor)	--	--	Kahaunani Mohoe-Thoene	--
Private (neighbor)	--	--	Aaron M I P Akau Annie A M P Akau	--
Private (neighbor)	--	--	Godfreida K Muller	--

Level	*Department*	*Division*	*Recipient*	*Response*
Private (neighbor)	--	--	Charlotte H Marquez c/o Honolulu Habitat for Humanity	--

1.3.2 PUBLIC SCOPING MEETING

On June 8, 2023, from 10:30 a.m. until roughly 12:15 p.m. a public scoping meeting was held at Waimānalo District Park Gym. The community was informed of the meeting via the following:

- A postcard announcing the meeting was mailed to all valid addresses in Waimānalo (zip code 96795) on May 10. A total of 2,870 postcards were sent.
- DDC and DPR issued a press release regarding the meeting on June 1, 2023. The press release was sent to several media outlets and appeared in the media in advance of the meeting, including an article in the Star-Advertiser. The press release was also provided to elected officials.
- Meeting announcements were placed on CCH social media accounts.
- Meeting information and materials were provided on the DDC website (https://www8.honolulu.gov/ddc/facilities-division/).

Roughly 50 members of the community attended the meeting. The project team provided a brief project description, answered questions, encouraged people to complete comment forms and questionnaires, and collected completed comment forms and questionnaires. All input received was considered during the preparation of this EA. The comment forms and questionnaires turned into project personnel are provided in Appendix B of this report.

1.4 ENVIRONMENTAL ASSESSMENT PROCESS

This DEA has been prepared as an agency action with DDC being the proposing agency. It is being published in the Office of Planning and Sustainable Development, Environmental Review Program's (ERP) bi-monthly bulletin, *The Environmental Notice*, which initiates a 30-day public review and comment period. After the 30-day public review period is complete, all substantive comments will be considered, addressed as needed in a Final EA (FEA), and provided with a response. The FEA will reflect revisions based upon any relevant information received during the public review period. At this time, it is anticipated that DDC will issue a Finding of No Significant Impact (FONSI) with the FEA.

1.5 PERMITS AND APPROVALS

The permits and approvals required to implement the proposed improvements at Waimānalo Beach Park are identified in Table 1-2.

Table 1-2: Permits and Approvals

Permit	*Issuing Authority*
HRS Chapter 343	Department of Design and Construction
Special Management Area Use Permit – Major	City and County of Honolulu, County Council
HRS Chapter 6E Historic Preservation Review	State Historic Preservation Division
Zoning Waiver	Department of Planning and Permitting
Building Permit	Department of Planning and Permitting

The zoning waiver is related to the existing ballfield lights. Those lights exceed the applicable Land Use Ordinance (LUO) height limit, and some ballfield lights may not comply with height setbacks. A zoning waiver to allow for that exceedance was not obtained prior to their installation. A zoning waiver will be sought following the completion of this EA so that the ballfield lights could be replaced, should that become necessary.

2 PROPOSED ACTION, PROJECT, AND ALTERNATIVES

2.1 PROJECT SITE AND SHORELINE DESCRIPTION

2.1.1 PROJECT SITE DESCRIPTION

The project site, Waimānalo Beach Park, TMK Nos. (1) 4-1-003:016, 019, 020, and 040, at 41-741 Kalaniana‘ole Highway, is in Waimānalo, O‘ahu, Hawai‘i and is summarized below.

Table 2-1: Characteristics of the Project Site

Lot Area and Zone	Parcel 016: 13,591 square feet/0.312 acres Parcel 019: 2,760 square feet/0.063 acres Parcel 020: 2,760 square feet/0.063 acres Parcel 040: 1,268,598 square feet/29.123 acres All park parcels: 1,287,709 square feet/29.562 acres, P-2 General Preservation District, SLU Urban District
Easements	Drainage and maintenance easement (22,696 square feet) between campground and Kaiona Stream (Figure 2-1). Drainage easements in ball field area (Figure 2-1).
Lot Shape	Irregular
Topography	The site is mostly flat with sand dune areas. The site ranges in elevation from approximately 0 to 20 feet.
Current Development	The site has multiple ballfields (one of which is lighted), a basketball court (lighted), playgrounds, two comfort stations, crafts building, canoe hale, paved walkways, two paved parking areas, day use picnic areas, and 10 camp sites.
Surrounding Uses	To the northeast is Waimānalo Bay and the Pacific Ocean. To the southeast is Kaiona Beach Park. To the southwest is Kalaniana‘ole Highway and single-family residences. To the northwest are single-family residences accessed via Wailea Street and commercial business accessed from Kalaniana‘ole Highway.
Nearest Bodies of Water	Waimānalo Bay/Pacific Ocean – adjacent to the lot, designated as an estuarine and marine wetland. Kaiona Stream – crosses the park east of the campground, it is designated as an estuarine and marine wetland in this area.
Soil Classifications	JaC: Jaucas Series in the central portion of the site; these are excessively drained, calcareous sands typical of coastal plains, adjacent to the ocean. BS: Beach sand in the shoreline portion of the site. KlA: Kawaihapai clay loam in the western ballfield portion of the site.

Vegetation	The landscape is a well-maintained public park and consists primarily of grass, coconut palms, ironwood, seagrape, naupaka, and assorted coastal shrubbery.
Flood Zone	Flood Zone VE and Zone X
Erosion Rate	Roughly -0.35 foot/year (varies from -0.21 to -0.60 foot/year)
Tsunami	Tsunami Evacuation Zone and Extreme Tsunami Evacuation Zone

Note: The park's TMK numbers and sizes have changed over the years. The TMK numbers and areas provided here were obtained from current CCH records available online (https://www.honolulugis.org/).

The recorded owner of the parcel 040 is DHHL; the other parcels are owned by CCH. The site is accessed via driveways directly off Kalaniana‘ole Highway. Current site conditions are illustrated on Figure 2-1 through Figure 2-10. The portion of the park east of Kaiona Stream is thinner than other areas, is less utilized and maintained than other areas, has no improvements, and, although it reportedly experiences less shoreline erosion, has a steeper shoreline than the rest of the park. Because no improvements exist and none are proposed in that thin eastern portion of the park, that area is not discussed further in this EA.

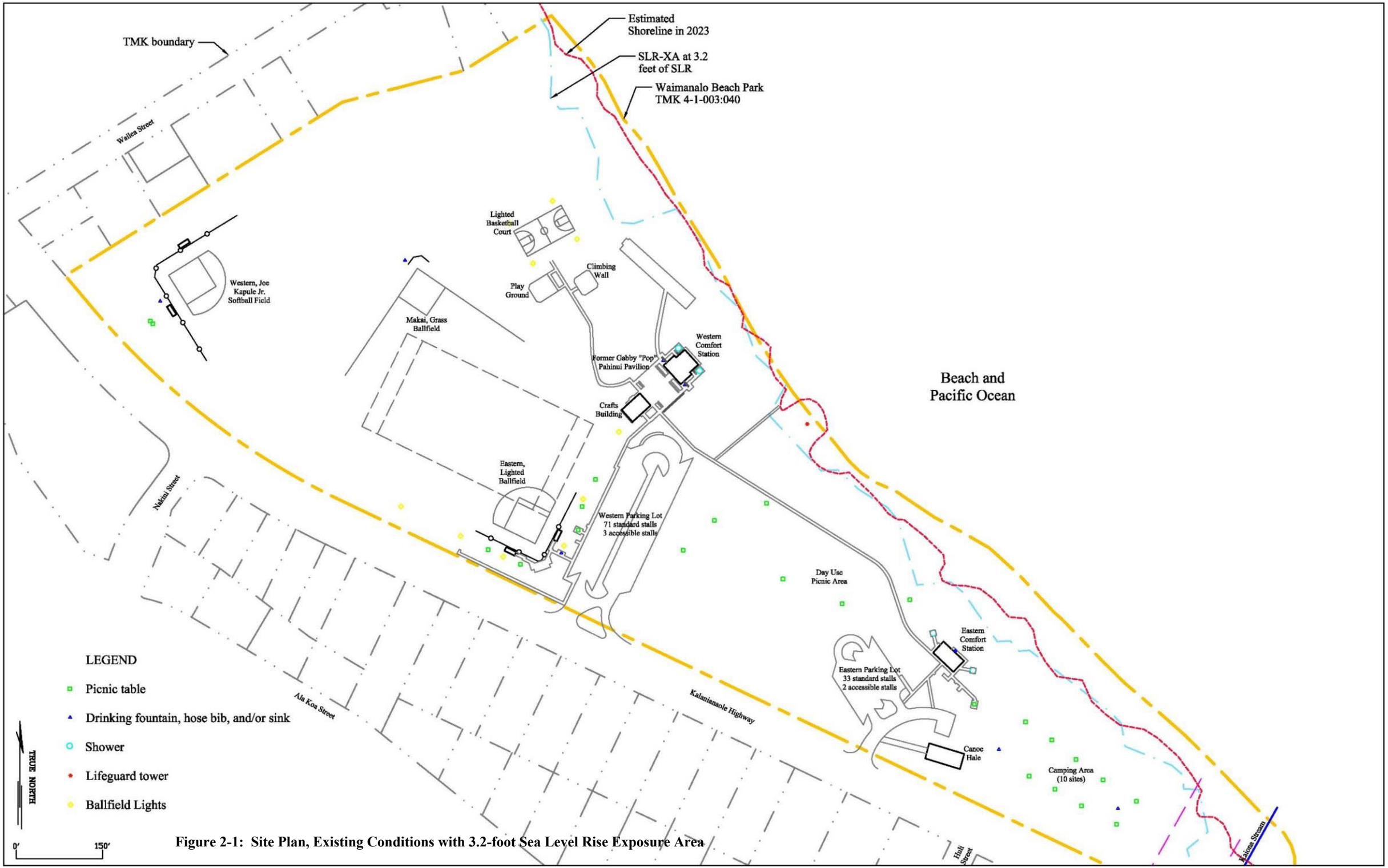
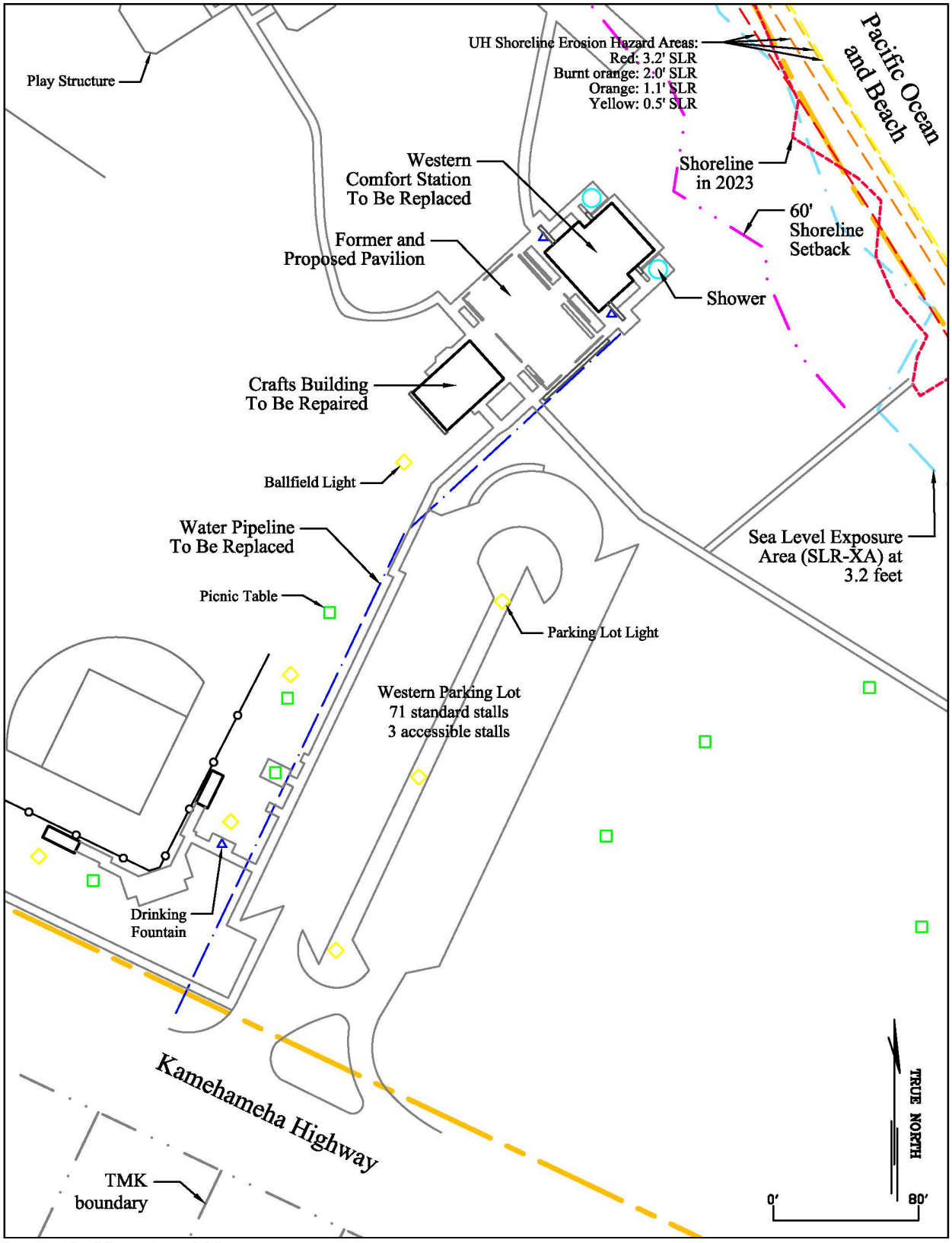


Figure 2-1: Site Plan, Existing Conditions with 3.2-foot Sea Level Rise Exposure Area

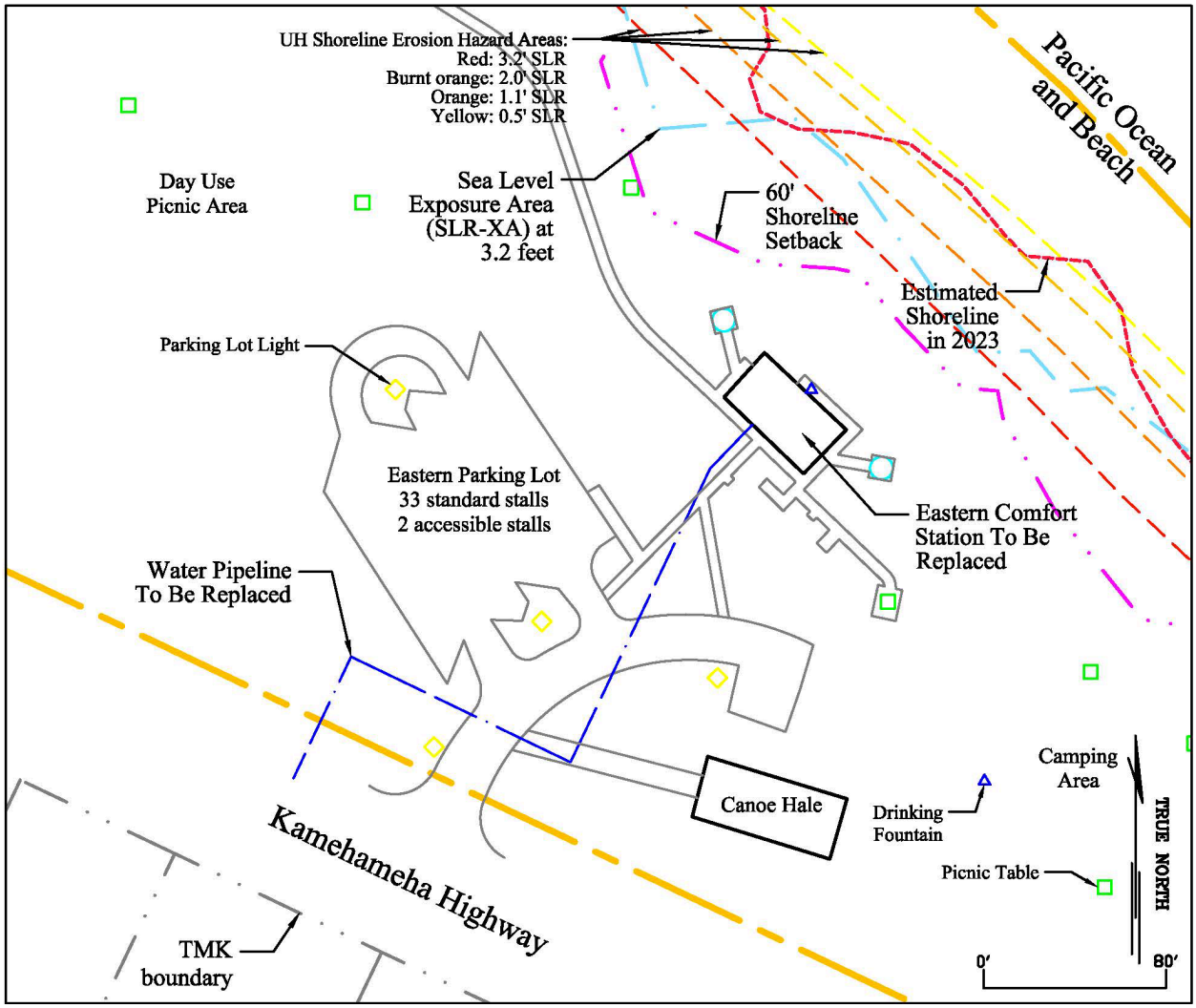
Figure 2-1: Site Plan, Existing Conditions with 3.2-foot Sea Level Rise Exposure Area

Figure 2-3: Western Area Site Plan



Source: PSI, CCH, and PacIOOS.

Figure 2-4: Eastern Area Site Plan



Source: PSI, CCH, and PacIOOS.

Figure 2-5: Eye-Level Photographs of Western Comfort Station, Former Pavilion, and Crafts Building Area

A. Overview of area, looking south, in 2011, prior to removal of the pavilion. Source: Google Street View.

B. Overview of area, looking south, in 2023, with former pavilion area occupied by a temporary tent and a chain-link fence around the crafts building. Source: PSI.

C. Overview of area, looking north, in 2011, prior to removal of the pavilion. Source: Google Street View.

D. Overview of area, looking north, in 2023, with area of former pavilion area vacant and a chain-link fence around the crafts building. Source: PSI.

E. Closeup view of plaque commemorating Gabby "Pop" Pahinui mounted on wall between western comfort station and crafts building. Source: PSI.

Figure 2-6: Eye-Level Photographs of Eastern Comfort Station

A. View from the north.

B. View from the south.

Source: PSI.

Figure 2-7: Eye-Level Photographs of Play Areas, Basketball Court, and Ballfields

A. Climbing wall and jungle gym with backetball court and lights to the right and ballfields in background.

B. Jungle gym with basketball court and lights in background and shoreline in the distance.

C. Makai ball field on left and eastern, lighted ballfield on right.
Source: PSI.

Figure 2-8: Eye-Level Photograph of Canoe Hale

Source: PSI

Figure 2-9: Eye-Level Photograph of Camping Area

Source: PSI

Figure 2-10: Eye-Level Photographs of Beach

A. Viewing south in July 2023.

B. Viewing north in July 2023.

Source: PSI.

As can be seen in the figures and photographs (Figure 2-1 through Figure 2-10), the roughly 29-acre park has a myriad of recreational facilities. The more substantial structures and facilities are listed in Table 2-2, which provides an overview of their size, height, and distance from property lines and the shoreline.

Table 2-2: Summary of Park Facilities

Facility	*Year Built*	*Footprint*	*Height (feet)*	*Yard (feet to nearest non-shoreline property line)*	*Shoreline Setback (feet from shoreline)*
Canoe Hale (Figure 2-8)	2003	1,440 sq.ft.	24	32	245
Eastern Comfort Station with showers (Figure 2-6)	~1970	1,200 sq.ft.	15 (approx.)	188	109
Western Comfort Station with showers (Figure 2-5)	1960	1,900 sq.ft.	20 (approx.)	438	117
Former Pavilion (Figure 2-5)	1960; Removed in 2019	2,900 sq.ft.	22	387	168
Crafts Building (Figure 2-5)	1960	1,350 sq.ft.	18 (approx.)	338	220
Eastern, lighted ballfield fence, cabinets, dugouts, and bleachers (Figure 2-7)	1960	260 linear ft. fence 168 sq.ft. per dugout	17 (fence max.) 10 (dugouts)	44	398
Ballfield lights (eastern field only; Figure 2-7)	~1985	6 poles	60 (approx.)	33	291
Western, Joe Kapule Jr. softball field fence, cabinets, and dugouts	1960	260 linear ft. fence 168 sq.ft. per dugout	17 (fence max.) 10 (dugouts)	62	648
Makai, grass ballfield fence and cabinets (Figure 2-7)	1960	50 linear ft.	17	300	414
Basketball court (Figure 2-7)	~1970	8,400 sq.ft.	13 (top of backboard)	266	168
Basketball court lights (Figure 2-7)	~1985	4 poles	25 (approx.)	266	168
Playground equipment (climbing wall and jungle gym; Figure 2-7)	2012 & 2022	3,000 sq.ft.	15 (approx.)	377	183
Street lights (at parking lots)	~1970	7 poles	32 (approx.)	10	220

Notes: The location of the facilities can be seen in Figure 2-1 through Figure 2-4.
DDC standard details for park facilities are available at https://www8.honolulu.gov/ddc/facility-division-download/.
An EA was prepared for the Canoe Hale and can be found at https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2003-06-23-OA-FEA-Canoe-Halau-Waimanalo-Beach-Park.pdf.

Source: DDC and PSI.

There are several smaller or ground-level facilities not listed in Table 2-2, including:

- Eastern parking lot, near the campground (Figure 2-1 and Figure 2-4). This parking lot provides 2 accessible parking stalls and 33 standard parking stalls.
- Western parking lot, near the ballfields (Figure 2-1 and Figure 2-3). This parking lot provides 3 accessible parking stalls and 71 standard parking stalls.
- Picnic tables (Figure 2-1). Tables are provided near the ballfields, in the picnic area between the parking lots, and in the campground.
- Trashcans. Receptacles are provided throughout the park and are typically secured to posts.
- Charcoal disposal receptacles. These are provided in picnic and campground areas. They consist of a vertical 36-inch-diameter concrete pipe protruding roughly 3 feet above ground.
- Drinking fountains, hose bibs, and/or sinks. These facilities are provided near ballfields, comfort stations, and the campground.
- Signs, fences, walls, and barriers. Fences are generally restricted to low, single chain fences along the highway; however, along the northwestern boundary of the park there are low walls and chain-link fences. There are also low concrete barriers delineating portions of the campground.
- Individual wastewater systems (IWS) for the two comfort stations. The IWS for the eastern comfort station was replaced in roughly 2010. Both IWS consist of septic tanks with leach fields that are located near the comfort stations.
- Irrigation system throughout the park, except the shoreline and beach areas.
- Utilities. Electricity and potable water are provided to certain facilities, as appropriate, via underground conduits and pipes.

The facilities in the park are generally built to DDC's standard park details, which can be found at https://www8.honolulu.gov/ddc/facility-division-download/. All the facilities are setback from the shoreline, except where they are required to be near the shoreline, such as walkways to the beach. The facilities also comply with the applicable aspects of the LUO, except that certain lighting elements exceed the applicable high limit.

The rules and regulations governing Honolulu's parks, including commercial activity at parks, are found in Revised Ordinances of Honolulu (ROH) Chapter 10. Permits are required for certain uses and activities at the park; information concerning which activities require permits and how to obtain permits is available at https://www.honolulu.gov/parks/default/park-locations/182-site-dpr-cat/1758-park-use-permits.html. Reservations/permits are required to use the campground (https://www.honolulu.gov/parks/beach-parks/camping.html).

The two paved parking lots at the park are frequently insufficient, especially near the campground on weekends. It is common for vehicles to transit over and park in grassy portions of the park. This occurs throughout the park; it is most common near the campground.

2.1.2 SHORELINE DESCRIPTION

A sandy beach extends from an ironwood grove on the makai side of the park to the water. The shoreline indicated on Figure 2-1, Figure 2-3, and Figure 2-4 was estimated based on the high wash of waves, which in some areas is mauka of the seaward-most ironwood trees and naupaka plants. The sandy beach typically has an even and gradual slope from the ironwood grove to the water line. Figure 2-10 shows shoreline/beach under typical summer conditions. There can be seasonal variations at the beach, but they are not pronounced.

The sandy beach is the park's primary recreational attraction. It is used for relaxation, sunning, and non-team sports. The nearshore waters are used for swimming, bodyboarding, paddling, and fishing.

2.2 PROPOSED ACTION DESCRIPTION

The necessary agency actions consist of the following:

- The HCC issuing a SMA Major Permit to DDC for the proposed project as described in Section 2.3.
- DDC obtaining other necessary permits and approvals, which are ministerial in nature; DPR allocating sufficient funding; and DDC implementing the proposed project, in phases, as described in Section 2.3.

2.3 PROPOSED PROJECT DESCRIPTION

Generally, the proposed project consists of the following elements:

1. Replacing the existing comfort stations (Figure 2-3 and Figure 2-4) with vandalism-resistant prefabricated facilities that would provide similar amenities, have roughly the same footprint, and be connected to the existing IWSs. In concert with this, the water lines from the water meter to the comfort stations would be replaced.
2. Replacing the former pavilion with a new pavilion (Figure 2-3) that would be similar in design and size to the former pavilion. It would utilize the remaining concrete slab to the extent possible and would use modern materials to extend its life.
3. Repairing the crafts building (Figure 2-3), which was damaged by arson. The repair would primarily involve electrical and carpentry work; the building footprint, purpose, and appearance would not be altered.
4. Periodically replacing other park improvements with similar facilities as they wear out or are damaged. Facilities replacements may not be precisely one-for-one replacements because building codes, participating vendors, materials available, and/or DDC standards may change. In general, the replacements would be consistent with DDC standards at the time they are implemented and would not be intended to alter the range or intensity of park uses.

The above project elements would be implemented in phases. Depending on the availability of funding, all or portions of the first three elements may occur as a single phase, or they may be spread over multiple phases. The fourth element would be implemented, as necessary.

Generally, the implementation of each phase would progress through the following steps:

1. If appropriate, establish alternative temporary facilities. For example, if the phase involves replacing a comfort station, portable toilets would be provided nearby.
2. Establish temporary Best Management Practices (BMPs).
3. Install improvements (e.g., new pavilion).
4. Stabilize site, remove alternative temporary facilities (if any), and allow landscaping to become established.
5. Remove temporary BMPs.

All development would be confined to the project site (TMK No. 4-1-003:016, 019, 020, and 040). No development is proposed in the shoreline area. All development would conform to applicable regulations and standards (Section 4.13.2.1), except for certain lighting facilities, for which a zoning waiver would be sought. Each of the project elements listed above and the typical BMPs that would be employed are discussed in the sections below.

2.3.1 STANDARD TEMPORARY CONSTRUCTION BEST MANAGEMENT PRACTICES

Temporary BMPs would be implemented during each phase of the proposed project. The BMPs would be maintained throughout the entire process, from mobilization to site stabilization. The BMPs would be employed to manage fugitive dust, storm water runoff, solid waste, and address other topics.

Throughout the construction period administrative BMPs would be implemented, including:

- Conduct construction activities such that they comply with (*i*) Honolulu's *Rules Relating Storm Drainage Standards*, (*ii*) ROH Chapter 14 regarding Public Works Infrastructure Requirements, (*iii*) HAR § 11-54 *Water Quality Standards*, and (*iv*) HAR § 11-55 *Water Pollution Controls*. Typical physical BMP measures would include establishing and maintaining appropriate temporary BMPs, such as perimeter silt fences and/or silt socks and stabilized construction access, until the site has been stabilized. The plans submitted to obtain building permits would detail the erosion and sediment control BMPs.
- Materials would be delivered in phases as construction progresses so that all construction staging occurs on-site.
- All work would be conducted during standard work hours: Monday through Friday (excluding holidays) from 7 a.m. to 6 p.m. and Saturday from 9 a.m. to 6 p.m. and comply with all applicable provisions of HAR § 11-46 *Community Noise Control*. No work would be conducted between sunset and sunrise that would require exterior lighting. If any impact tools need to be used (e.g., jackhammer), they would be used after 9 a.m. to reduce potential impacts.

- Maintain all construction equipment in proper tune according to manufacturer's specifications and further minimize noise by properly maintaining mufflers and other noise-attenuating equipment.
- Fuel all off-road equipment, including but not limited to backhoes, tractors, generator sets, and compressors, in a designated location with sufficient spill response equipment and materials on hand.
- Clearly designate work areas and keep them confined to a limited area that does not reduce the public use of other nearby facilities unnecessarily. Provide areas for worker parking in the project area or elsewhere so that ample public parking remains available at the park. Maintain access to the park and the shoreline area throughout construction periods.

2.3.2 COMFORT STATION AND WATER LINE REPLACEMENTS

There are two comfort stations in the park: the eastern comfort station (Figure 2-4) near the campground and the western comfort station (Figure 2-3) near the ballfields. Both comfort stations have become dilapidated due to age, exposure to harsh shoreline conditions and hazards, and vandalism. Regular maintenance is no longer able to keep them in good condition for extended periods of time. The men's side of the eastern comfort station has been closed due to its deteriorated condition; port-a-potties are maintained in the area to replace some of the services formerly provided by the eastern men's comfort station.

Both comfort stations would be replaced with prefabricated comfort stations. The manufacturer and the design of the prefabricated comfort station would depend on the outcome of a competitive bidding process. The Request for Proposals sent to manufacturers and contractors may incorporate the following general guidelines:

- Products should be designed for shoreline conditions (e.g., salt, moisture, sun), including winds of 100 miles per hour, with a design life of at least 30 years.
- Products could be unisex, should have a capacity and footprint similar to existing comfort stations, and must connect to the existing individual wastewater systems.
- The design should reduce the potential for vandalism.
- Products shall not exceed the allowable height of 25 feet and should have exterior treatments and colors consistent with other facilities at the park.
- Products should incorporate elements that allow for efficient cleaning (e.g., have sloped floors with weep holes for drainage) and include a secure, wide plumbing chase area to accommodate maintenance and provide storage space for both maintenance personnel and lifeguards.

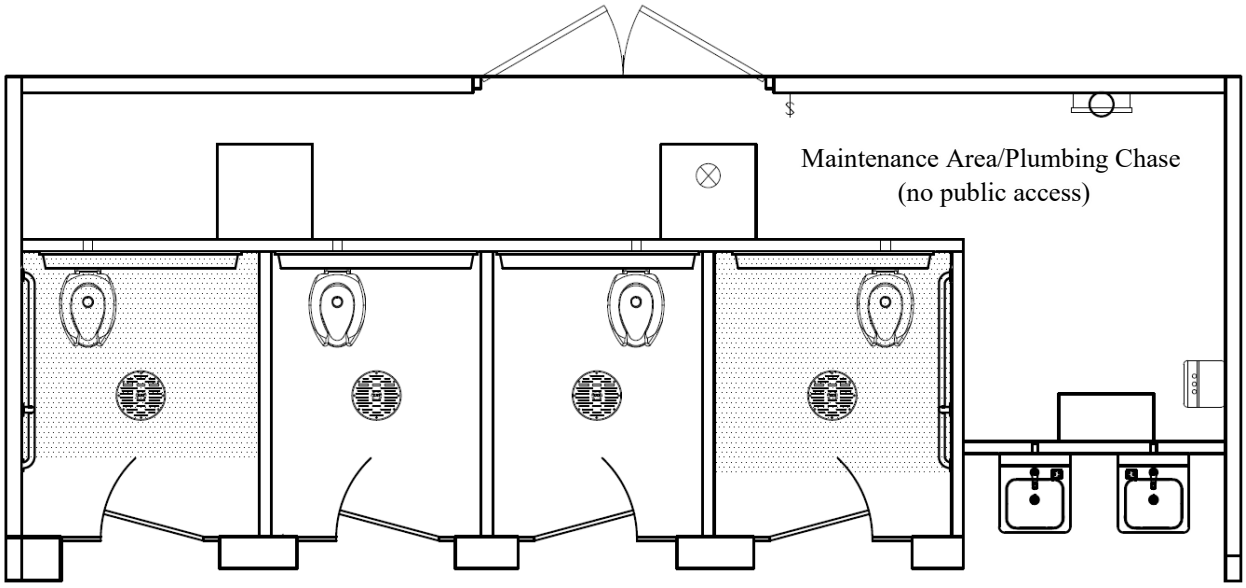
Figure 2-11 is a photograph of an example prefabricated comfort station. Figure 2-12 is a layout of an example prefabricated comfort station. As Figure 2-12 shows, the only publicly accessible private portions of the comfort stations would be individual toilet stalls, which would each have a door directly from a publicly accessible area. The toilet stalls would be unisex. The exact appearance of the prefabricated comfort stations to be installed at Waimānalo Beach Park is not

known at the time this EA is being prepared; the exact design and appearance will not be known until the competitive bidding process is concluded.

Figure 2-11: Photographs of Example Prefabricated Comfort Stations

Source: PSI and Google Street View.

Figure 2-12: Example of Prefabricated Comfort Station Layout



Source: DDC.

The proposed comfort stations could be assembled using standard construction equipment; no novel equipment or techniques are required to complete the project. Because they would be built where the existing comfort stations are and would be connected to the existing IWSs, limited excavation would be required. Ground disturbance would involve the removal of the existing concrete slabs and the construction of a new concrete slab within the footprint of the existing slab.

In concert with the replacement of the comfort stations, the water lines serving them would be replaced. This preventative maintenance is deemed timely because the existing water lines are more than 50 years old. The new water lines will be made of copper and sized for a flow rate of 60 gallons per minute. This will involve digging a trench from the water meters near Kamehameha Highway to the comfort stations.

2.3.3 PAVILION REPLACEMENT

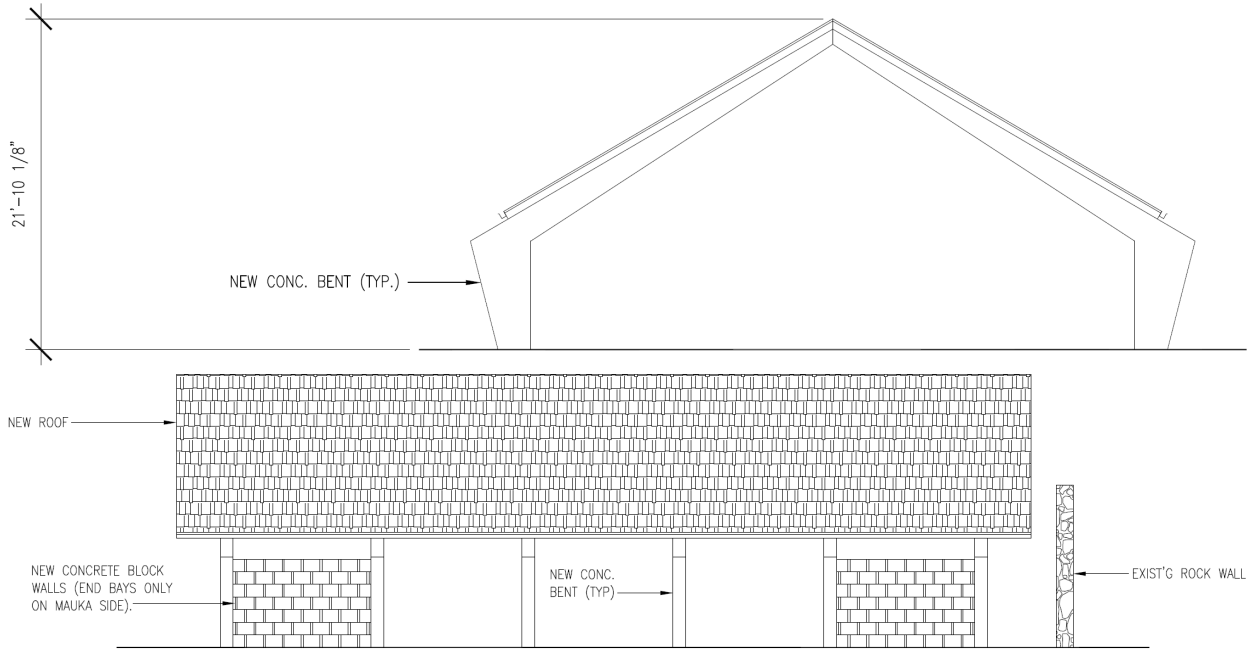
The design of the proposed pavilion is intended be consistent with the former pavilion and to harmonize with the character of the existing structures at the Waimānalo Beach Park. As shown on Figure 2-11, Figure 2-13, and Figure 2-14, the proposed pavilion would consist of a single-level, Hawaiian "hale"-type pavilion, similar to structures at beach parks throughout Oʻahu, but specific to this park and based on the former pavilion (Figure 2-5). Important aspects of the design include:

- Built on existing concrete foundation and adjacent to the existing lava rock wall with the plaque commemorating Gabby "Pop" Pahinui (Figure 2-5).
- A low, concrete perimeter wall with new, integral bench seating on the interior and planters on the exterior of the wall. The wall would be like the walls associated with the former pavilion but designed and finished in a manner to allow for better natural lighting within the pavilion and discourage vandalism (e.g., graffiti).

- A new roof mounted on bent reinforced concrete arches. The roofline will encompass the walkway interconnecting the proposed pavilion and the existing crafts building (Figure 2-11). The interior of the roof would be finished in a manner to allow for better natural lighting within the pavilion (e.g., finished with gloss, light-colored paint).
- Electrical service limited to providing lighting and water service limited to a hose bib to facilitate washing of the facility.

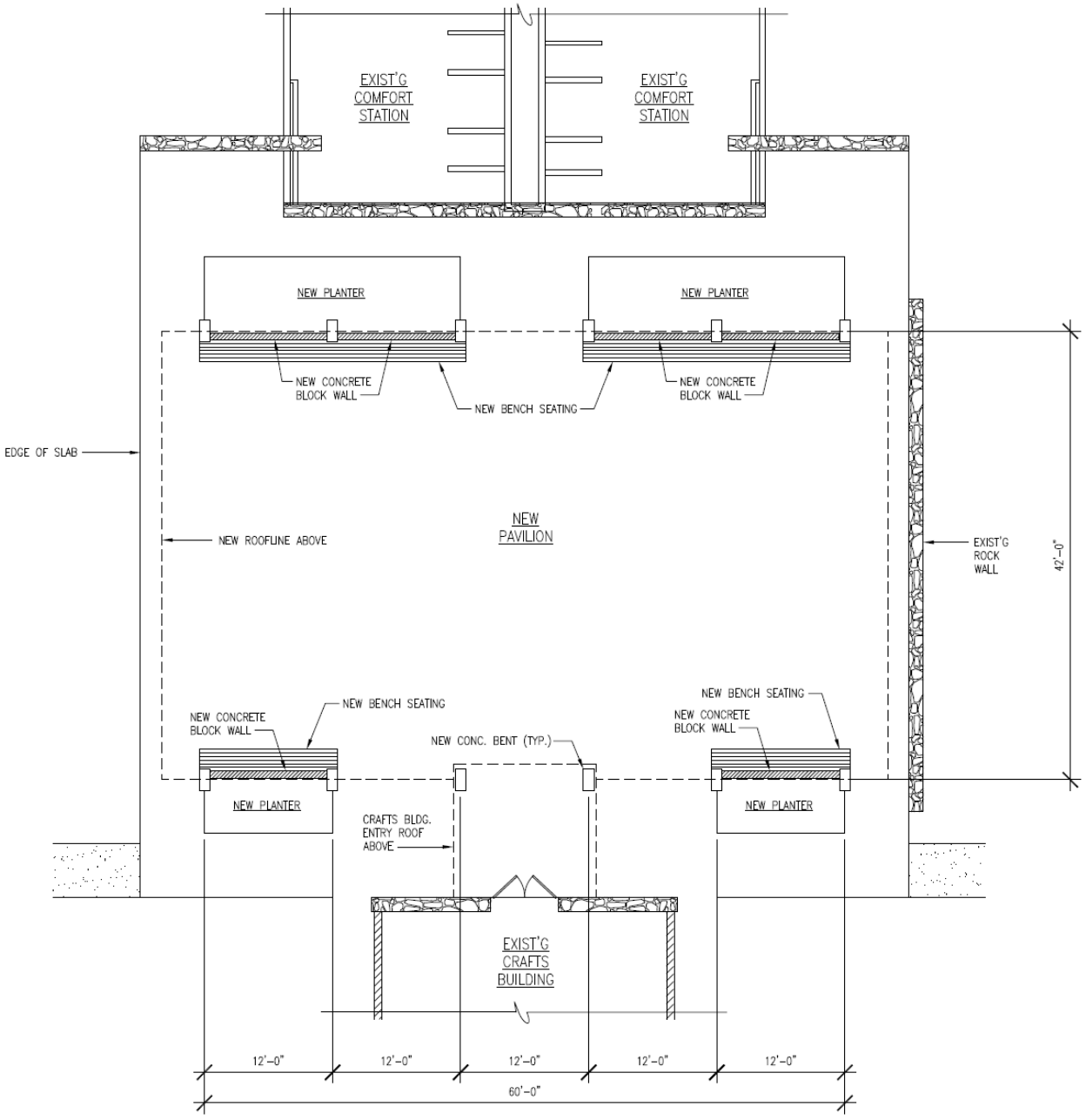
The proposed construction could be accomplished with standard construction equipment; no novel equipment or techniques would be required to complete the project. Because the pavilion would be built on the existing concrete foundation remaining from the prior, now demolished pavilion, no additional excavation of any kind is required. Detailed construction drawings are contained in Appendix C of this report.

Figure 2-13: Conceptual Pavilion Elevation Views

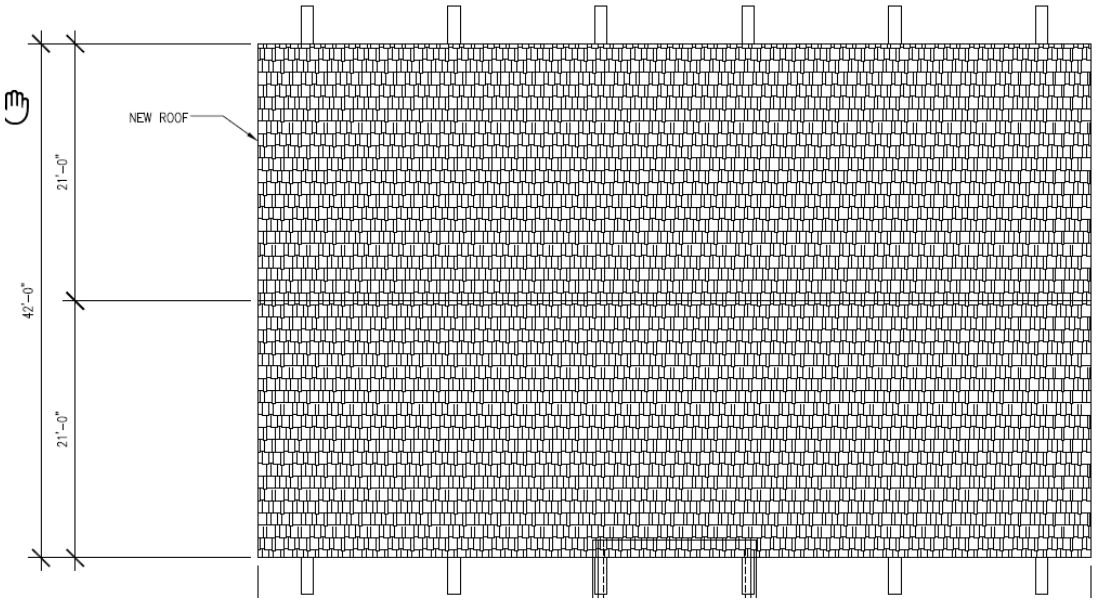


Source: DDC (2023)

Figure 2-14: Conceptual Pavilion Plan Views



A. Floor Plan.



B. Roof Plan.
Source: DDC (2023)

2.3.4 CRAFTS BUILDING REPAIRS

The crafts building (Figure 2-3 and Figure 2-5) was damaged by arson in March 2022. The repair would primarily involve electrical and carpentry work that could be accomplished using hand tools. No ground disturbance is anticipated. The repair would restore the crafts building to its previous condition and use.

2.3.5 OTHER PARK FACILITY REPLACEMENTS

Periodically, other park facilities are likely to need replacement. Examples of potential replacements include:

- Replacement of the ballfield, basketball court, and parking lot lights to comply with changes to the applicable lighting standards, realize energy savings, or otherwise upgrade/repair the system.
- Replacement of ballfield fences, bleachers, and dugout roofs due to deterioration or other factors.
- Replacing components of the IWS systems.
- Replacing play structures and surfacing.
- Resurfacing or rebuilding parking lots, courts, and walkways.

The replacement facilities would be built to DDC's standard park details at the time construction bids are sought for the work; current standard details can be found at https://www8.honolulu.gov/ddc/facility-division-download/.

As with the comfort stations and pavilion, these replacements and repairs would occur where existing facilities are located. Therefore, limited new ground disturbance, if any, would occur. In

addition, the replacements would be designed to continue the existing uses of the park, not add new uses or increase the intensity of existing uses. The proposed replacements could be accomplished with standard construction equipment; no novel equipment or techniques would be required to complete the project. The replacement of the ballfield lights would likely require the largest construction equipment, consisting of cranes, but could be accomplished quickly.

2.3.6 PRELIMINARY SCHEDULE

The DDC intends to complete the first three elements of the proposed project (replace comfort stations, replace pavilion, and repair crafts building), including obtaining all required permits and approvals, as expeditiously as practicable. Due to funding constraints, those elements may be developed in phases. The major project-related tasks, and their preliminary schedule for completion, are presented in Table 2-3 below.

Table 2-3: Preliminary Schedule for the Proposed Action

Task	*Estimated Start Date*	*Estimated Completion Date*
Pre-Environmental Assessment Scoping	1/17/2023	6/8/2023
Environmental Assessment	6/2023	2/2024
Special Management Area – Major Permit	2/2024	7/2024
Other Permitting, Construction Bidding, and Contractor Selection	7/2024	1/2025
Construction, Phase 1	1/2025	12/2025

2.3.7 ESTIMATED PROJECT BUDGET

The estimated cost to replace the comfort stations is $2.5 million. The estimated cost to replace the pavilion is $1.2 million. The estimated cost to repair the crafts building is $550,000.

2.4 ALTERNATIVES

2.4.1 FRAMEWORK FOR CONSIDERATION OF ALTERNATIVES

Title 11, Chapter 200.1, HAR contains the State of Hawai‘i, Department of Health (HDOH) environmental review rules. HAR, § 11-200.1-9 deals with agency actions such as the proposed project. It requires that, for actions not exempt, the agency must consider the environmental factors and available alternatives and disclose those in an EA or Environmental Impact Statement (EIS). HAR § 11-200.1-18 establishes the process for the preparation and content of an EA. Among the requirements listed, HAR § 11-200.1-18(d)(7) requires the identification and analysis of impacts of alternatives considered during project planning.

In accordance with those requirements, DDC considered several alternatives before determining that the Proposed Action and project described above is its preferred alternative. The process consisted of formally defining the purpose and need for the project (Section 1.1), identifying other ways in which those objectives might be achieved (i.e., alternatives, including those specifically recommended by HRS, Chapter 343 and HAR § 11-200.1), and evaluating each alternative with respect to the project’s objectives. Possibilities considered included the “No Action Alternative,” alternative locations, alternative configurations for the project, alternative scales for the proposed project, and alternative timing (i.e., delayed action).

2.4.2 ALTERNATIVES FOR DETAILED CONSIDERATION

The City has concluded that the only alternatives that merit detailed consideration in this EA are:

- The Proposed Action Alternative. This alternative is described previously in this chapter (Section 2.2 and 2.3). DDC has concluded that replacing the comfort stations and pavilion, plus repairing the crafts building, as described above as expeditiously as possible would enable it to best meet its purpose and need as described in Section 1.1. Thus, the Proposed Action represents its preferred alternative.
- The No Action Alternative. Under the No Action Alternative, existing conditions at the park would not be changed. No attempts would be made to replace the comfort stations or pavilion on the site. While the No Action Alternative does not meet the project's purpose and need as defined in Section 1.1, it is considered here pursuant to the recommendations of HRS, Chapter 343 and HAR § 11-200.1, and to provide a baseline for comparison and contrast with the action alternative (i.e., the Proposed Action).

Only these two alternatives are analyzed in Chapters 3 and 4.

2.4.3 ALTERNATIVES CONSIDERED BUT REJECTED

The following subsections briefly describe the other alternatives considered and the factors that were used to decide that they should be excluded from detailed consideration.

2.4.3.1 Alternative Scale

In considering the appropriate scale for the project, the DDC considered the possibility of constructing comfort stations and the pavilion at the same locations, but with an alternative scale (i.e., either smaller or larger than as characterized in Section 2.3). Ultimately, DDC and DPR has determined that the existing and former facilities were appropriately sized for the intended and existing use and that (a) smaller facilities would not adequately address the demand, and (b) that larger facilities would not be appropriate to the scale of the community and could invite greater or different, undesired, use of the park and its facilities. During the scoping period (Section 1.3), the community confirmed that the size/capacity of the comfort stations and pavilion (and other facilities) was appropriate. Consequently, the DDC and DPR determined that an alternative scale undertaking was not worthy of further consideration.

2.4.3.2 Delayed Action Alternative

As noted previously, HAR § 11-200.1 recommends the consideration of a variety of alternatives, including those of a substantially different nature than the Proposed Action, to include alternative timing (i.e., delayed action). However, the existing comfort stations are dilapidated and partially closed, and the prior pavilion was demolished and removed in 2019 (see Section 1.1). Delaying the comfort station replacements further would risk a situation where the only available sanitary facilities at the park would be port-a-potties. Furthermore, replacing the pavilion has already been deferred for several years. Prolonging the replacement of these facilities would offer no countervailing advantages. For these reasons, the DDC determined that a delayed action alternative is not a viable option and eliminated it from further consideration in this EA.

2.4.3.3 Alternative Location

HAR § 11-200.1 also recommends the consideration of alternative locations for a proposed action. Essentially, there are two possibilities regarding an alternative location, either elsewhere: (*i*) within Waimānalo Beach Park; or (*ii*) on Oʻahu. With respect to the first possibility, the DDC and DPR determined that no other location within the park offered as many advantages as the existing and former locations of the comfort stations and pavilion. The existing and former locations were selected to optimally support the primary uses of the park and have not been observed to interfere with existing uses. Furthermore, selecting an alternative site within the park would require substantially more ground disturbance, not take advantage of the existing concrete foundations, may require realignment or relocation of other park improvements, and not provide any countervailing advantages. During the scoping period (Section 1.3), the community did not suggest that alternative locations warrant consideration.

DDC and DPR also considered the existing and former location of the facilities relative to the shoreline and exposure to coastal hazards (Section 3.1). That analysis indicated that the facilities would not be within the shoreline setback or likely to be subject to undo coastal hazard risk during their design life (roughly 50 years). Alternative locations would certainly have been considered in detail if the existing and former locations were within the shoreline setback or subject to high coastal hazard risk.

With respect to selecting an alternative site on Oʻahu, the siting determination was effectively made when the DDC developed the park at its current location. The DDC and DPR believe that this site possesses all the characteristics which make it a desirable location for the proposed project and that other locations on the island do not possess the same combination of characteristics which make the current location ideal for the proposed use. For these reasons, DDC and DPR have determined that an alternative location is not a reasonable option and eliminated it from further consideration in this EA.

2.4.4 ALTERNATIVE DESIGN

The existing comfort stations were individually designed and built. Comfort stations are one of the few common park amenities for which there is no standard design (https://www8.honolulu.gov/ddc/facility-division-download/). During the scoping period (Section 1.3), the community did not have strong objections to using prefabricated comfort stations, especially if it could speed implementation and potentially limit damage from vandalism, which results in extended period of limited facilities. In considering alternative designs, DDC and DPR determined that (a) the design of the comfort stations is not a critical element to the feeling of the park; (b) the range of prefabricated designs is robust, and an appropriate unit could be identified; and (c) using a prefabricated unit would likely speed delivery and reduce exposure to vandalism. For these reasons, DDC and DPR have determined that an alternative to prefabricated comfort station options does not warrant further consideration in this EA.

Alternative designs for the pavilion are certainly possible. Different pavilion designs, typically with less pitched roofs and more open sides, are present in other Oʻahu parks. However, during the scoping period (Section 1.3), the community clearly voiced a desire for the pavilion to be very similar to the former pavilion, indicating the former pavilion provided protection from the winds, had good acoustics, and was the right size for the types of community gatherings it hosted. The

current design allows for the reuse of the existing concrete slab, which reduces the need for ground disturbance. A different design could also potentially reuse the existing concrete slab and be of comparable size. However, hearing the community's preference and there being no substantial benefits to an alternative design, DDC and DPR have determined that an alternative pavilion design does not warrant further consideration in this EA.

3 EXISTING ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION

This chapter describes the potential environmental effects of the Proposed Action and the No Action Alternative, as described in Chapter 2.

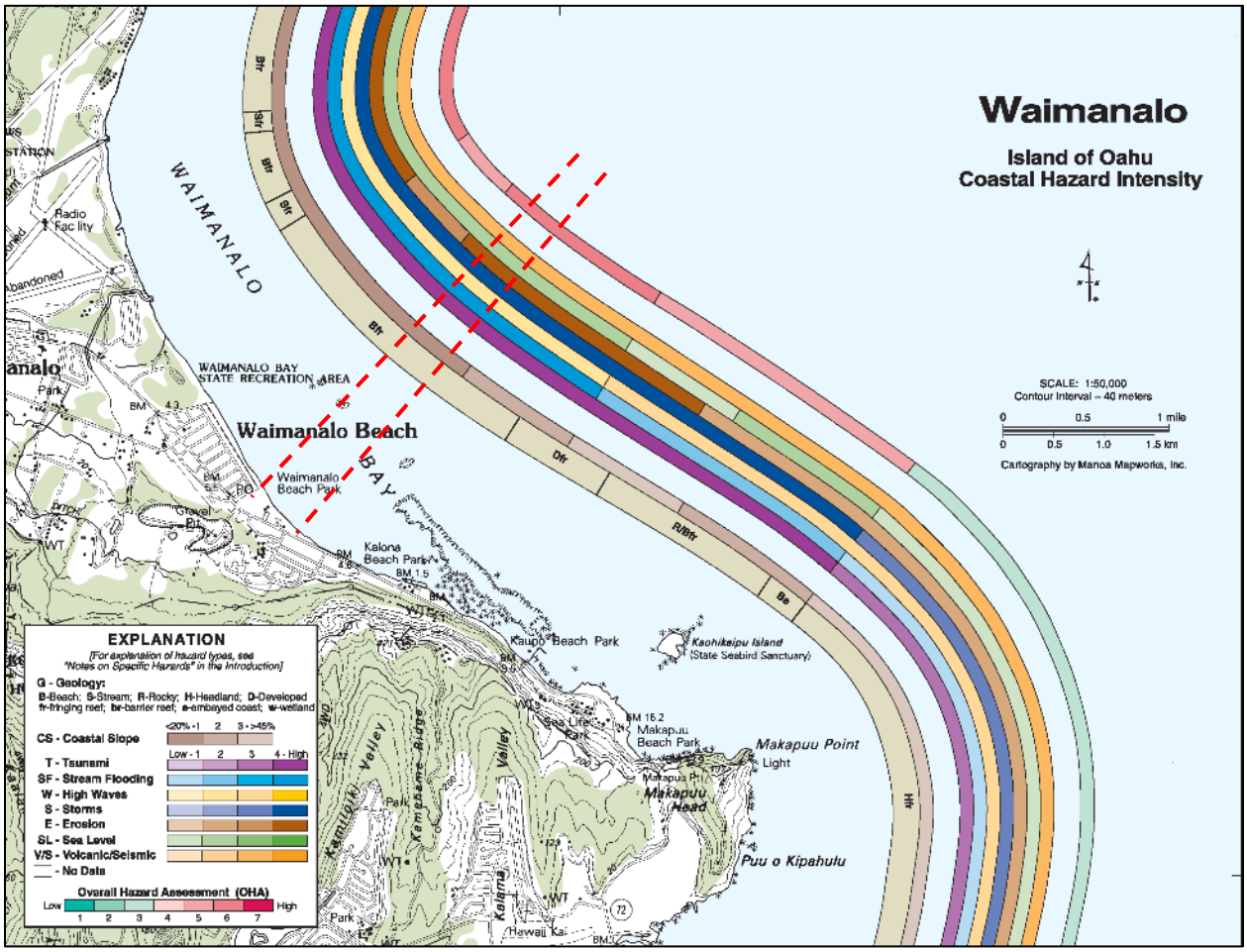
This chapter is organized by topic (e.g., coastal hazards, archaeological and cultural resources, etc.). The discussion under each topic includes: (*i*) an overview of existing conditions on the project site and, where appropriate, area (within 300 feet of the site) or region; (*ii*) the potential environmental impacts that may occur as a result of implementation of one of the alternatives considered in this EA; and, where appropriate, (*iii*) any measures that the City will take to avoid, minimize, or mitigate potential adverse effects. The scale of the discussion related to each topic is commensurate with the potential for impacts. The discussion of impacts also distinguishes between short-term impacts (i.e., those occurring when construction equipment and personnel are actively implementing demolition and construction processes) and those that may result over the long-term.

3.1 COASTAL ZONE HAZARDS

The *Atlas of Natural Hazards in the Hawaiian Coastal Zone* (USGS, 2002) provides an overview of coastal hazards throughout Hawai‘i, including in the vicinity of the project site. The project site is in what it calls the “Waimānalo Bay” area. It indicates that the conditions and hazards for the project parcel’s area are as follows (Figure 3-1):

- Geology: Sandy beach coast with a fringing reef (Bfr).
- Coastal Slope: 1 (<20%).
- Tsunami Hazard: 4 out of 4, the highest hazard level.
- Stream Flooding Hazard: 4 out of 4, the highest hazard level.
- High Waves Hazard: 2 out of 4, the medium-low hazard level.
- Storms Hazard: 4 out of 4, the highest hazard level.
- Erosion Hazard: 4 out of 4, the highest hazard level.
- Sea Level Hazard: 2 out of 4, the medium-low hazard level.
- Volcanic/Seismic Hazard: 3 out of 4, the medium-high hazard level.
- Overall Hazard Assessment: 6 out of 7.

Figure 3-1: Overview of Coastal Hazards



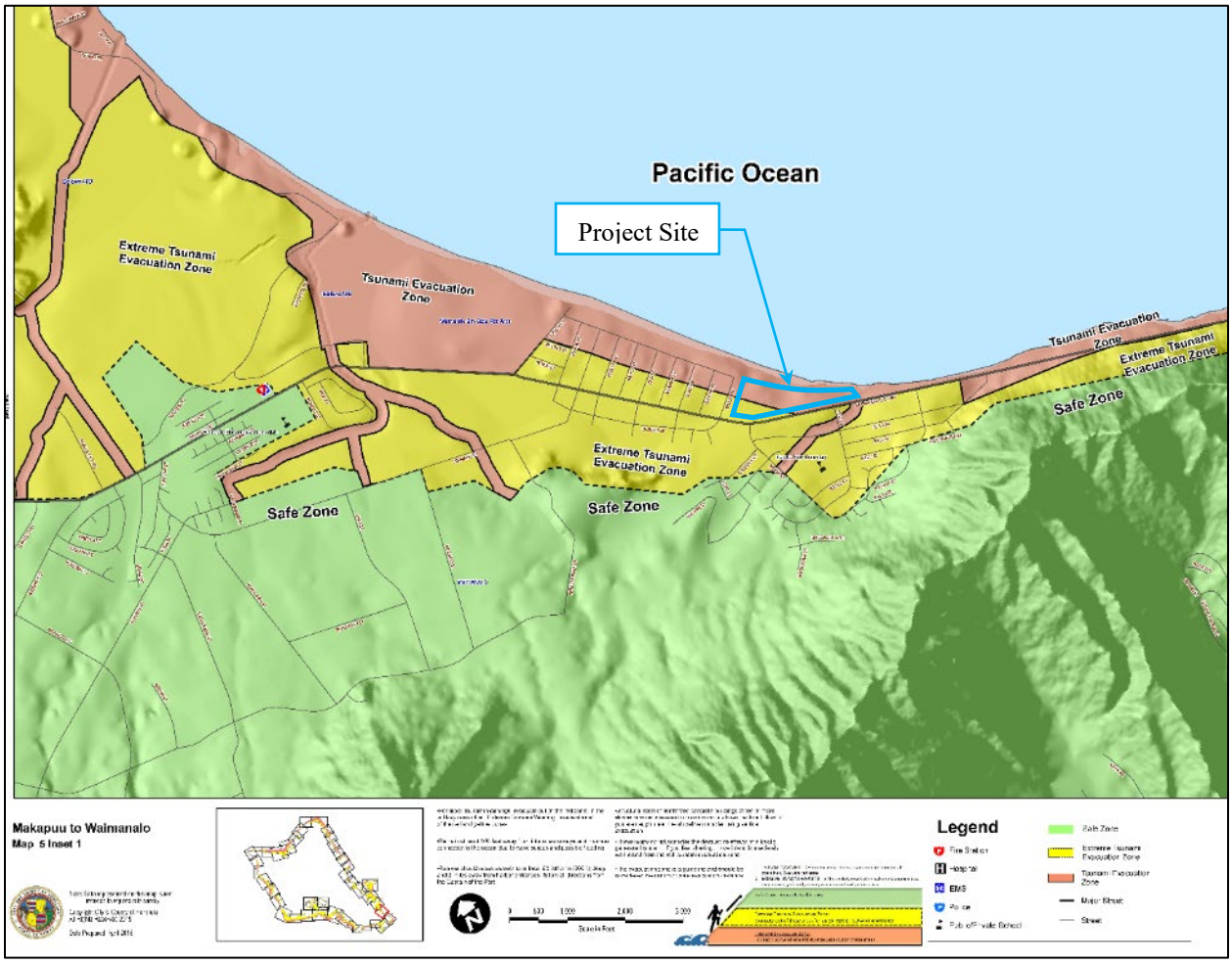
Source: Atlas of Natural Hazards in the Hawaiian Coastal Zone (USGS, 2002)

The Overall Hazard Assessment for the coastline fronting the project site is high (6). The following subsections consider these hazards in more detail, then the impacts are discussed (Section 3.1.9), and finally, the avoidance, minimization, and mitigation measures are presented (Section 3.1.10).

3.1.1 TSUNAMI HAZARD

The *Atlas of Natural Hazards in the Hawaiian Coastal Zone* (USGS, 2002) indicates that "the tsunami hazard for the Waimānalo coast is high" and the site is in the tsunami evacuation zone or the extreme tsunami evacuation zone (Figure 3-2). No tsunamis with wave runups exceeding five feet have affected the coastline in the project area since 1964.

Figure 3-2: Tsunami Evacuation Zones



Source: http://www.honolulu.gov/rep/site/dem/dem_docs/tsunami_evac/etez_final/Makapuu_to_Waimanalo_map_5_inset1.pdf (accessed April 28, 2023).

3.1.2 FLOODING HAZARDS

The *Atlas of Natural Hazards in the Hawaiian Coastal Zone* (USGS, 2002) set the stream flooding hazard level at the project region as 4 out of 4 (i.e., high; see Figure 3-1) because "Stream flood hazard is high north of Kaupo Beach Park, where flash flooding such as in March of 1958, can inundate the town of Waimanalo with several feet of water." The town of Waimānalo is west-northwest of the park. Although Kaiona Stream does outlet to the sea on the subject parcel, stream flooding does not appear likely to affect the upland areas of the park where improvements exist, such as comfort stations, the crafts building, the ball fields, the canoe hale, or the pavilion site.

The National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA), maintains floodplain and flood hazard maps for use in determining a reference height that allows property insurance companies to assess flood risk. The park occurs in panel 15003C0385G of the Flood Insurance Rate Map (FIRM). The portions of the park that host improvements (the comfort station, crafts building, canoe hale, etc.) are in Flood Zone X; Zone X is an area determined to be outside of the 0.2 percent annual chance floodplain. No base flood elevations or depths are shown for areas in Zone X (Figure 3-3). The beach area, where no

structures or improvements other than the lifeguard tower are present, is in Flood Zone VE. Zone VE indicates a 100-year coastal flood zone that has additional velocity hazards associated with waves. The base flood elevation (BFE) has been determined in this zone and is 10 or 11 feet along the beach.

Figure 3-3: Flood Hazard Assessment Tool Report

Source: State of Hawai'i, Department of Land and Natural Resources, Flood Hazard Assessment Tool. http://gis.hawaiinfip.org/FHAT/ (Accessed April 28, 2023)

The stream nearest to is Kaiona Stream Gulch, which delineates the southeastern limit of the project area. It is just southeast of the campground. It is a relatively small stream and is not expected to affect the project site.

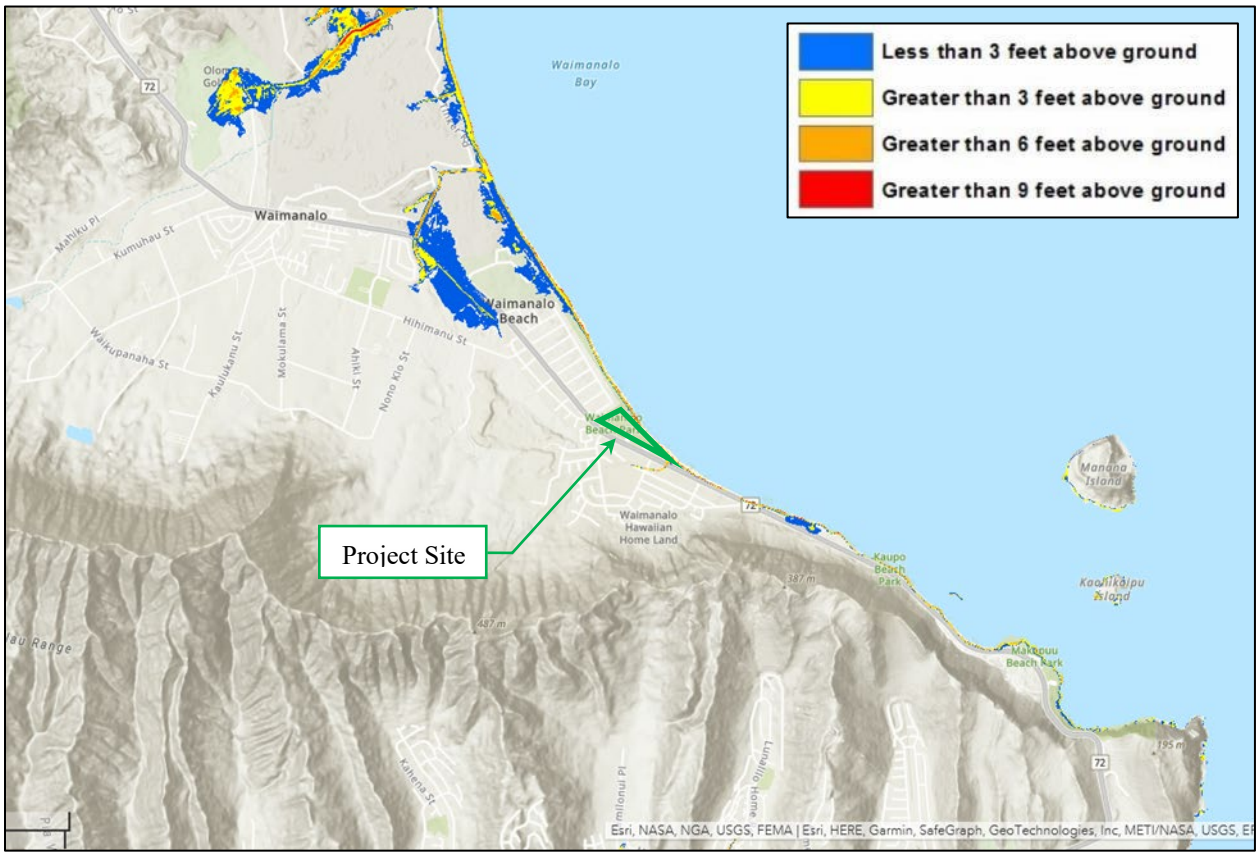
3.1.3 STORM SURGE FLOODING

The *Atlas of Natural Hazards in the Hawaiian Coastal Zone* (USGS, 2002) set the storm hazard level at the project site at 4 out of 4 (i.e., high) for storms. The Atlas' hazard ranking for storms is primarily associated with storm surge and high wind hazards. It states, "The storm hazard is ranked high along this portion of the coast where hurricanes, such as Hurricane Kate in 1976, have brought waves as high as 15 feet to these shores. Winds up to 82 mph, associated with Hurricane 'Iwa in 1982, were also recorded in the Waimānalo area."

Despite the high ranking for the Waimānalo area, there is relatively little predicted storm surge in the project vicinity. According to the National Oceanographic and Atmospheric Agency (NOAA)

National Storm Surge Hazard Maps (Figure 3-4), only the beach area adjacent to the site would experience any surge during a Category 4 hurricane (see Section 3.1.5 for further discussion of storms) and the site would not experience any storm surge.

Figure 3-4: Storm Surge Hazard, Category 4 Hurricane



Source: https://experience.arcgis.com/experience/203f772571cb48b1b8b50fdcc3272e2c (downloaded April 28, 2023).

3.1.4 HIGH WAVES HAZARD

The *Atlas of Natural Hazards in the Hawaiian Coastal Zone* (USGS, 2002) indicates that "The threat of high waves is moderately low in the northern portion, which is partially sheltered from winter swell and protected by the extensive fringing reef offshore."

The *Hawaii Sea Level Rise Vulnerability and Adaptation Report* (Hawaii Climate Change Mitigation and Adaptation Commission (HCCMAC), 2017) included numerical modeling to estimate the potential impacts that a 0.5, 1.1, 2.0, and 3.2-foot rise in sea level would have on coastal hazards, including annual high wave flooding. Figure 3-5 shows the annual high wave flooding exposure area in the vicinity of the project area with 0.5 feet of sea level rise. Figure 3-6 shows both the 1.1 and 2.0 foot of Sea Level Rise (SLR) scenarios, and Figure 3-7 shows the annual high wave flooding exposure area in the vicinity of the project site with 3.2 feet of SLR (a level of SLR that was not expected to occur until 2100, when the HCCMAC report was prepared).

Figure 3-5: Annual High Wave Flooding in Project Area under a 0.5-foot Sea Level Rise Scenario

Source: Sea Level Rise : State of Hawai'i Sea Level Rise Viewer, An Interactive Mapping Tool in Support of the State of Hawai'i Sea Level Rise Vulnerability and Adaptation Report. http://www.pacioos.hawaii.edu/shoreline/slr-hawaii/ (accessed August 10, 2023).

Figure 3-6: Annual High Wave Flooding in Project Area under a 1.1-foot (2050), and 2.0-foot (2075) Sea Level Rise Scenarios

Source: Sea Level Rise : State of Hawai'i Sea Level Rise Viewer, An Interactive Mapping Tool in Support of the State of Hawai'i Sea Level Rise Vulnerability and Adaptation Report. http://www.pacioos.hawaii.edu/shoreline/slr-hawaii/ (accessed August 10, 2023).

Figure 3-7: Annual High Wave Flooding in Project Area under a 3.2-foot Sea Level Rise Scenario

Source: Sea Level Rise : State of Hawai'i Sea Level Rise Viewer, An Interactive Mapping Tool in Support of the State of Hawai'i Sea Level Rise Vulnerability and Adaptation Report. http://www.pacioos.hawaii.edu/shoreline/slr-hawaii/ (accessed August 10, 2023).

As shown in Figure 3-5, Figure 3-6, and Figure 3-7, only an increasing portion of the beach area is modeled to be affected by annual high wave flooding at any of the four sea level rise heights. The areas where improvements are present are not modeled to be affected by annual high wave flooding.

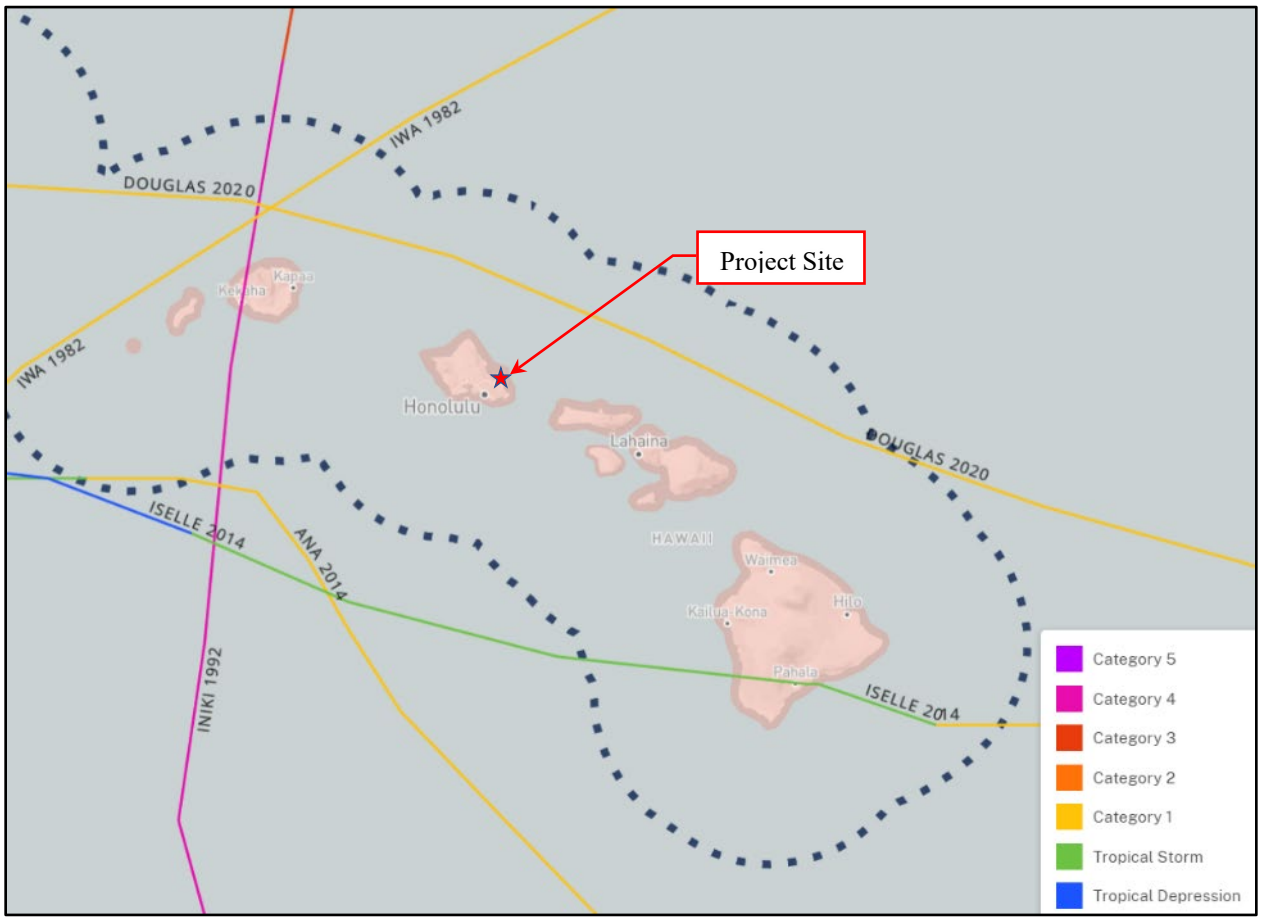
3.1.5 STORM HAZARD

The official Central Pacific Hurricane Season runs from June 1 through November 30; the primary hurricane season in Hawai'i is considered July through September. During this period, tropical storms generally form off the west coast of Mexico and move westward across the Central Pacific. These storms typically pass south of the Hawaiian Islands and sometimes have a northward curvature near the islands. Late season tropical storms follow a somewhat different track, forming south of Hawai'i and moving north toward the islands. When these storms generate sustained wind speeds over 64 knots (74 mph) they are hurricanes. A handful of hurricanes have passed within 60 miles of the main Hawaiian Islands in the past 40 years (Figure 3-8):

- Iwa in 1982 (Category 1)
- Iniki in 1992 (Category 4)

- Iselle in 2014 (Category 1)
- Ana in 2014 (Category 1)
- Douglas in 2020 (Category 1)

Figure 3-8: Hurricanes Within 60 Miles of the Main Hawaiian Islands (1980-2020)



Source: https://coast.noaa.gov/hurricanes/#map=4/32/-80 (accessed September 16, 2021).

The damage and injury associated with these meteorological phenomena is the result of high winds, marine overwash (aka, storm surge), heavy rains, tornadoes, and other intense small-scale winds and high waves. The intensity of the hazard is typically proportional to the proximity (distance) from the storm and the intensity (category) of the storm. The nearest storm to the site over the last 40 years was Hurricane Douglas, a Category 1 storm roughly 30 miles to the north in 2020. Douglas did not cause major damage to O‘ahu.

3.1.6 EROSION HAZARD

Factors that contribute to coastal erosion and beach loss include, but are not limited to:

- Construction of shoreline hardening structures, which, while limiting coastal land loss landward of the structure, does not alleviate beach loss and may accelerate erosion on the seaward side of the structures by reducing sediment deposition.

- Reduced sediment supply either from landward or seaward (primarily reef) sources. Obvious causes, such as beach sand mining and structures that prevent natural access to back-beach deposits, remove sediment from the active littoral system.[1] More complex issues may be related to reef health and carbonate production which, in turn, may be linked to changes in water quality.
- Large storms, which can transport sediment beyond the littoral system.
- Sea level rise, which leads to a landward migration of the shoreline.

Chronic long-term shoreline erosion generally represents permanent shoreline recession and land losses and is often manifested in the form of seasonal or episodic erosion events from which the shoreline never fully recovers. This means that erosion may occur during a certain season of the year and accretion may occur during another season of the year but over the years the net result is a gradual shoreline retreat. It could also mean that the shoreline remains fairly stable for years but a single storm event causes erosion from which it does not recover.

The Coastal Geology Group in the School of Ocean and Earth Science and Technology at the University of Hawai‘i (UH) developed a web map that provides information from their Hawai‘i Shoreline Study. As part of the study, they developed "Future Erosion Hazard Zones," which are lands that are projected to be vulnerable to coastal erosion by a specified year and associated height of sea level rise. The UH model considered both historic shoreline change data (from past aerial photographs) and modeled responses of the beach profile to increased sea level. The historic erosion rate was calculated by measuring changes in the location of the low-water mark feature (or "beach toe") at the seaward edge of the beach. The low-water mark was used because it is more readily identified in historic aerial photographs than the vegetation line, which can be obscured by the tree canopy and other features. UH indicates that there is an 80 percent certainty that the area landward of the modeled coastal erosion area will be safe from erosion at the specified sea level rise scenario.

Figure 3-9 provides the output from the website for the area of the subject project. The red and blue lines perpendicular to the coastline on Figure 3-9 designate transects established during the UH study to evaluate shoreline erosion (blue lines indicate positive rates of erosion, which is beach accretion, and red lines indicate negative rates of erosion, which is shoreline retreat). UH examined several historic aerial photographs of the area to identify past low-water marks and past vegetation lines. They then plotted the low-water marks on the transects and estimated rates of erosion. The transects adjacent to the beach park are Transect #268 through 296. Based on the historic low-water level marks, UH estimated an erosion rate at those transacts as ranging from 0.21 to 0.60 foot/year with an average of 0.36 foot/year. This average would result in roughly 25.2 feet of beach accretion over a 70-year period. However, the UH-generated erosion hazard areas shown in Figure 3-9 (see also Figure 2-3 and Figure 2-4) indicate that when sea level rise reaches 3.2 feet, the shoreline may have eroded more than 50 feet. As the figure shows, as sea level rises, beach accretion may yield to shoreline erosion and the rate may increase as the higher sea level allows more wave energy across the fringing reef, putting more stress on the shoreline.

[1] The littoral system is the area from the landward edge of the coastal upland (e.g., the certified shoreline) to the seaward edge of the nearshore zone (e.g., the edge of the shallow fringing reef).

Figure 3-9: Projected Future Shoreline Erosion Vulnerability

Source: Hawai'i Shoreline Study web map https://www.soest.hawaii.edu/crc/index.php/hawaii-shoreline-study-web-map/ (accessed August 10, 2023).

The shoreline at the park has been observed to be fairly static over the last 10 years, but prior to that period, there were erosion and accretion episodes. Some of the ironwood trees nearest the shoreline were lost prior to 2014. The sand under the base of some trees was eroded away and the trees either fell or, in some cases, DPR chose to cut the trees (but not remove the stumps) for safety reasons. Figure 3-10 shows a roughly 10-year series of photographs in the northern portion of the park that includes three trees that were cut. One of the tree stumps washed away over the 10-year period; the other two remain and have become a base for naupaka shrubs. UH study transect 270 is nearest the location where the photographs in Figure 3-10 were taken. The graph (Figure 3-11) shows an accretion trend but also shows an episode of retreat (erosion) in the early 2000s.

Figure 3-12 shows a 10-year sequence of photographs in the southern portion of the park. UH study transect 288 is nearest the location where the photographs in Figure 3-12 were taken. The graph (Figure 3-13), like transect 270, shows an accretion trend but also a retreat episode in the early 2000s. Both sets of photographs and graphs illustrate that occasional shoreline erosion events occur, including one in the early 2000s that resulted in the loss of some shoreline ironwood trees, but that over the last 10 years there has not been a substantial change in the shoreline condition.

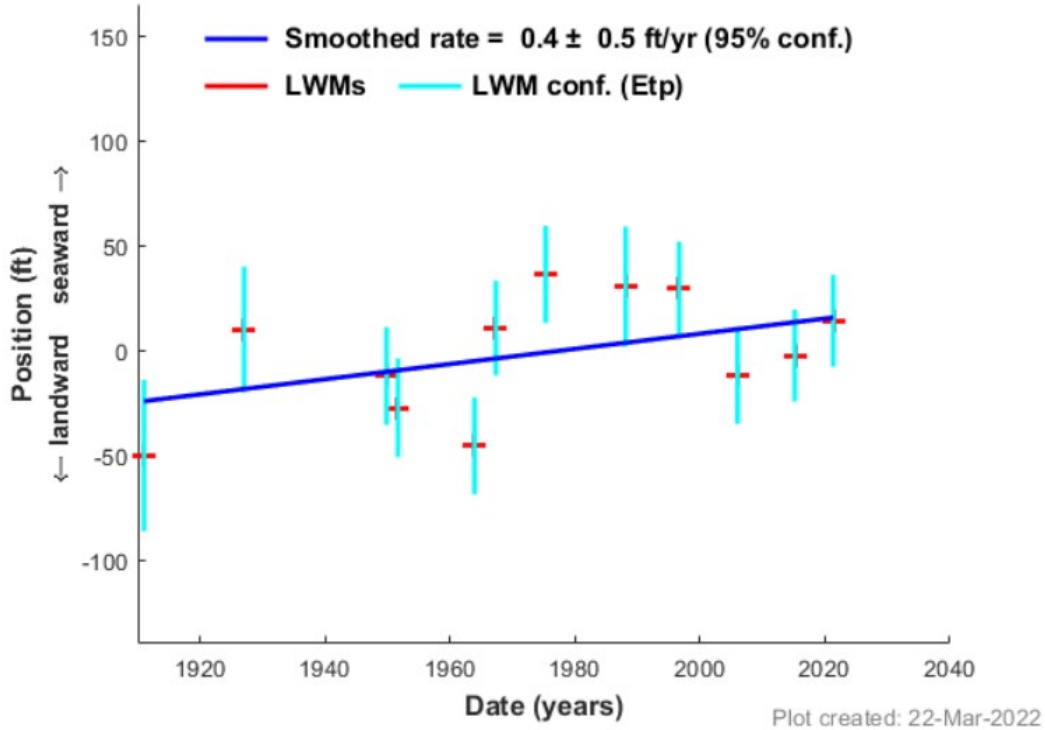
Figure 3-10: Series of Shoreline Photographs, Northern Shoreline

A. Highway storm drain outfall area in January, 2014. Source: Google Street View.

B. Highway storm drain outfall area in May, 2017. Source: Google Street View.

C. Highway storm drainage outfall area in December, 2023. Source: PSI.

Figure 3-11: UH Shoreline Transect 270



Source: https://www.soest.hawaii.edu/crc/ArcOnline/Oahu/TransectPlots/FEET/Waimanalo_FEET_270.png

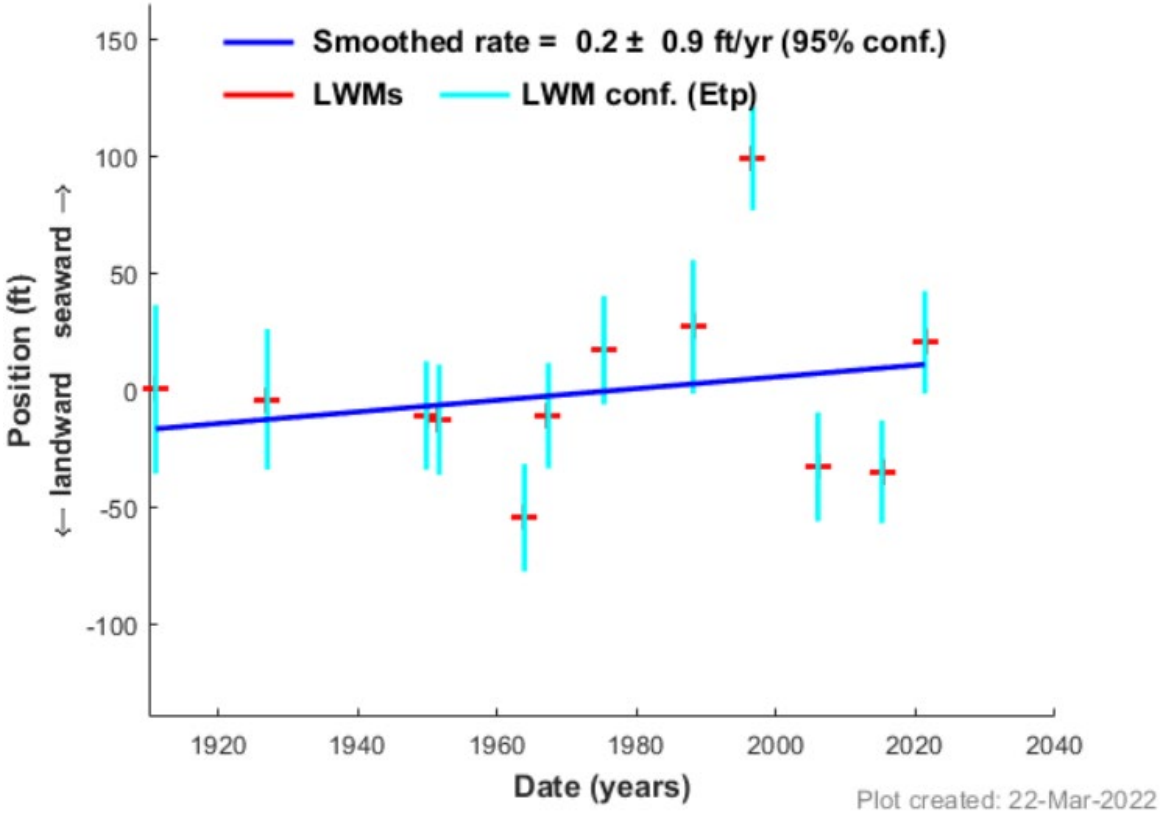
Figure 3-12: Series of Shoreline Photographs, Southern Shoreline

A. Highway storm drain outfall area in January, 2014. Source: Google Street View.

B. Highway storm drain outfall area in May, 2017. Source: Google Street View.

C. Highway storm drainage outfall area in December, 2023. Source: PSI.

Figure 3-13: UH Shoreline Transect 288

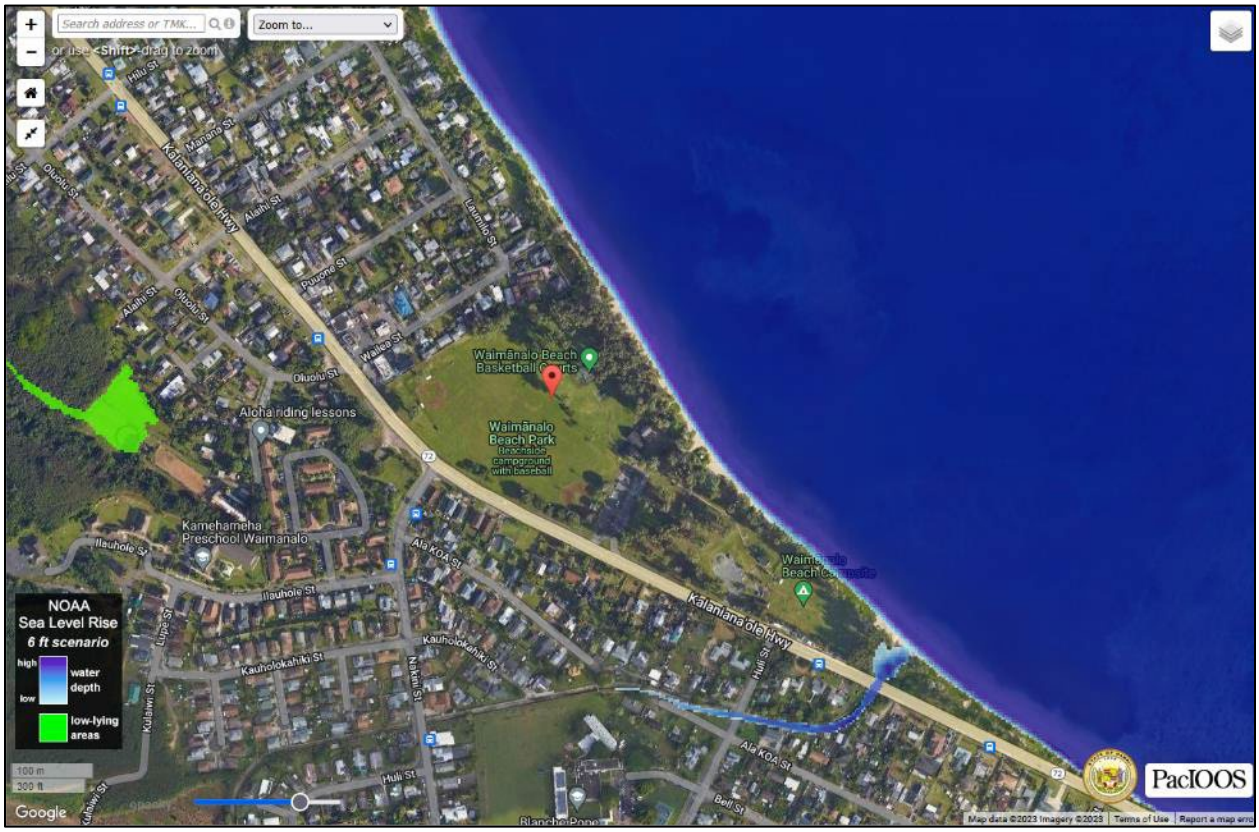


Source: https://www.soest.hawaii.edu/crc/ArcOnline/Oahu/TransectPlots/FEET/Waimanalo_FEET_288.png

3.1.7 SEA LEVEL RISE HAZARD

The global community of climate scientists has concluded that sea levels are currently rising and that this trend is expected to continue for the foreseeable future. The Intergovernmental Panel on Climate Change (IPCC) has predicted (IPCC, 2013) that the average temperature in the Hawaiian Islands is likely to increase by 0.9° F to 1.7° F (0.5° to 1.5 C°) by 2100, rainfall is likely to decrease by, at most, 10 percent, and sea level could rise between 0.85 to 3.2 feet (0.26 to 0.98 meter). Given that likelihood, it is incumbent upon planners to look at the potential effects this trend could have on development and examine ways in which project designs can accommodate these changes. DPP also requests that, as part of the SMA permit process, that planners consider 6 feet of sea level rise. To partially illustrate the impact of SLR on the project vicinity, Figure 3-14 depicts passive flooding associated with six feet of SLR, which was generated by NOAA.

Figure 3-14: Passive Flooding with Six Feet of Sea Level Rise



Source: Sea Level Rise : State of Hawai'i Sea Level Rise Viewer, An Interactive Mapping Tool in Support of the State of Hawai'i Sea Level Rise Vulnerability and Adaptation Report. http://www.pacioos.hawaii.edu/shoreline/slr-hawaii/ (accessed May 1, 2023).

The *Hawai'i Sea Level Rise Vulnerability and Adaptation Report* (HCCMAC, 2017) goes a step further when assessing the hazards associated with SLR. It modeled the three chronic flood hazards associated with SLR: (*i*) passive flooding; (*ii*) annual high wave flooding (see Section 3.1.4.); and (*iii*) coastal erosion (see Section 3.1.6). The combined footprint of these three hazards defines what the report terms the "Sea Level Rise Exposure Area" (SLR-XA) and indicates flooding in the area will be associated with "long-term, chronic hazards punctuated by annual or more frequent flooding events."

Figure 3-15 shows the SLR-XA in the vicinity of the project area with 3.2 feet of sea level rise, which is not expected to occur until 2100. The SLR-XA is also shown on Figure 2-1 through Figure 2-4. The SLR-XA is identical to the high wave hazard at 3.2 feet of sea level rise (Figure 3-7) except that the SLR-XA also includes an area that extends up Kaiona Stream. The area that extends up the stream is related to passive flooding and is confined to the stream channel.

Figure 3-15: Sea Level Rise Exposure Area in Project Area under a 3.2-foot Sea Level Rise Scenario

Source: Sea Level Rise : State of Hawai'i Sea Level Rise Viewer, An Interactive Mapping Tool in Support of the State of Hawai'i Sea Level Rise Vulnerability and Adaptation Report. http://www.pacioos.hawaii.edu/shoreline/slr-hawaii/ (accessed August 10, 20233).

3.1.8 VOLCANIC/SEISMIC HAZARD

The *Atlas of Natural Hazards in the Hawaiian Coastal Zone* (USGS, 2002) indicates that "The hazard due to volcanism and seismicity is also ranked moderately low as it is throughout the northern half of Oahu." The Atlas' ranking of this hazard attempt to account for the variability in (*i*) geology, (*ii*) Uniform Building Code (UBC) seismic zone factor rankings for each island, (*iii*) history of volcanic and seismic activity, and (*iv*) recent scientific predictions of the probability distribution of seismic hazards among the main Hawaiian Islands. It notes that the volcanic/seismic hazard ranking generally increases uniformly from Kaua'i toward Hawai'i Island, because of the increase in volcanic and seismic activity found along Hawai'i Island's southeast coast.

Like all of O'ahu, the project site is designated by the UBC as Seismic Zone 2a. Current building codes, including the International Building Code (IBC), include minimum design criteria for structures to address the potential for damage due to seismic disturbances specific to each seismic zone. There is no threat of volcanic eruptions directly affecting the project area directly.

3.1.9 POTENTIAL IMPACTS

The proposed project will not have a discernable impact on the susceptibility of the area to coastal zone hazards (e.g., tsunami, flooding, high waves, storms, erosion, sea level rise, or seismicity). The range of coastal hazards may episodically or chronically impact the project site and any improvements upon it. Because the beach park is located along a coast with a fringing reef and is at an elevation of roughly 15 to 20 feet above MSL, the potential impacts associated with the coastal zone hazards are somewhat muted. None of the hazards analyzed in this section, except tsunami (Figure 3-2), have the potential to directly impact the proposed improvements.

Considerations in this assessment include:

- Tsunamis may occur but would be unlikely to reach the project improvements unless a tsunami with a wave runup exceeding 15 feet impacts this coastline. A tsunami of that magnitude has not impacted this coast since 1964.
- Storms (high wind, storm surge, and high waves) may occur but would be unlikely to have a substantial adverse effect on the proposed park improvements since they are required to be designed to withstand high winds and the storm surge predicted from a Category 4 hurricane, which has not impacted the area in recorded history, would not reach the location of the improvements.
- Shoreline erosion may advance toward the project site but is not expected to directly affect the areas where improvements are proposed.

The No Action Alternative would leave the (*i*) comfort stations to deteriorate requiring the public to continue relying on port-a-potties; (*ii*) proposed pavilion site vacant, except for the remnant concrete foundation, and no structures would be built at Waimānalo Beach Park or elsewhere; and (*iii*) crafts building unrepaired and prevent its use by the public. The No Action Alternative would not have a discernable impact on these coastal zone hazards (tsunami, flooding, high waves, storms, erosion, sea level rise, or earthquakes). The existing facilities would be expected to the hazards described above. The port-a-potties would be more likely than the proposed improvements to become hazards in the event of a tsunami or storm because they could become airborne in high winds or become flotsam after tsunami inundation.

3.1.10 AVOIDANCE, MINIMIZATION, OR MITIGATION MEASURES

In general, the proposed project would address coastal hazards and their associated potential impacts in a manner like other coastal developments. This will include:

- Meeting or exceeding IBC's minimum design standards for Seismic Zone 2a.
- Conforming to current construction practices, and meeting or exceeding applicable building codes.

- Complying with all development standards of ROH, §21-9.10 *Flood Hazard Districts* applicable to the coastal high hazard district.
- Not placing structures within (*i*) the shoreline setback, (*ii*) the area modeled to be vulnerable to shoreline erosion when sea level rise reaches 3.2 feet (Figure 2-3, Figure 2-4, and Figure 3-9), and (*iii*) the SLR-XA when sea level rise reaches 3.2 feet (Figure 2-3, Figure 2-4, and Figure 3-15).

Implementing these measures will avoid and minimize the potential impacts of the coastal zone hazards.

3.2 RECREATIONAL RESOURCES

3.2.1 EXISTING CONDITIONS

The project site is a public recreational resource and provides access to a public recreational resource. The nearest recreational resources are:

- *Parks*. The proposed project site is a beach park in the CCH Department of Parks and Recreation's District IV, which encompasses 23 parks on the windward side of Oʻahu from Mokulēʻia to Makapuʻu. These include: (*i*) beach parks, (*ii*) community parks, (*iii*) regional parks, (*iv*) senior centers, and (v) community centers. The District IV administrative office is located at 45-660 Keaʻahala Road in Kāneʻohe. The nearest CCH park to the project site is Kaiona Beach Park, adjacent to the site with its support park (parking and showers) roughly 4,400 feet to the southeast (Figure 1-1). Hūnānāniho (formerly Waimānalo Bay Beach Park) is a City and County of Honolulu park approximately 3,500 feet to the northwest.
- *Beach and Ocean*. Waimānalo Bay and the Pacific Ocean, which are adjacent to the northeast of the project site, provide public recreation opportunities, including wave riding, boating, paddling, fishing, snorkeling, swimming, sunning, and relaxation. Because of the fringing reef, surfing is not common along Waimānalo Bay; the closest popular surf spot in the area is near Makapuʻu.
- *Shoreline Access*. The beach and ocean can be accessed via the project site. In addition, lateral movement along the shoreline is possible for extended distances in both directions.

3.2.2 POTENTIAL IMPACTS

The proposed project elements would be restricted to small portions of the project site. During construction, recreational activities would not be allowed in the construction areas, which would be kept to a minimum size and would be delineated by signs, fences, barricades, or other means. The presence of these temporary construction areas would not prevent access to or along the shoreline; nor would they restrict access to other recreational areas such as ballfields and play equipment. The number of paved public parking spaces would not be reduced during construction because site workers would be required to park in designated areas not utilized for public parking. Construction activities would generate some noise and air emissions that could be a nuisance to those engaged in recreation activities in nearby portions of the park. In addition, construction

activities may generate some additional vehicle traffic in the area. Prior to starting work on comfort stations, alternative temporary facilities would be established for public use during the construction period. The short-term, construction-phase impacts would be brief and modest in effect. Overall, the short-term, construction-phase impact on recreational resources would be less than significant.

The intent of the proposal is to improve existing and former Waimānalo Beach Park infrastructure and repair/replace infrastructure as needed. The proposal's long-term effect would be to enhance Waimānalo Beach Park as a recreational resource for public use. The site would function as a public recreational resource during and after implementation of improvements and repairs. The project site would continue to provide parking and access to public recreational resources, including the shoreline, sandy beach, and nearshore waters. The proposal's long-term effect on recreational resources would be beneficial.

Under the No Action Alternative, the (*i*) comfort stations would continue to deteriorate requiring the public to rely on port-a-potties; (*ii*) the pavilion site would be left vacant, except for the remnant concrete foundation; (*iii*) crafts building would remain unrepaired and closed to the public; and (*iv*) other park amenities would gradually fail and not be replaced. Because no construction or change in use would occur, there is no potential for this alternative to adversely impact shoreline access; however, the range of recreational activities available could be reduced and the infrastructure that supports all recreation activities would gradually be degraded, adversely affecting the recreational use of the park.

3.2.3 AVOIDANCE, MINIMIZATION, OR MITIGATION MEASURES

To avoid and minimize potential impacts to recreational resources the following measures will be employed during the construction phase of the proposed project:

- Construction workers would be directed to park their vehicles in designated areas that are not typically utilized for public parking.
- The construction areas would be clearly delineated.
- When permanent comfort stations are not available due to construction, temporary facilities would be provided nearby.

3.3 HISTORIC AND CULTURAL RESOURCES

3.3.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES

To assess the potential for the Proposed Action to adversely impact historic and cultural resources, Honua Consulting prepared an Archaeological Literature Review and Field Inspection (ALRFI) report. The resulting report, *Archaeological Literature Review and Field Inspection of Waimānalo Beach Park Pavilion Replacement Project, Waimānalo Ahupua'a, Ko'olaupoko District, O'ahu Island, TMK: [1] 4-1-003:040* (Honua Consulting, 2023) forms the basis for the information and analyses in the following subsections of this document. The complete ALRFI report is in Appendix E.

As described in the ALRFI, archival research and fieldwork demonstrate several relevant findings:

- Certain areas of the park have been subject to an archaeological assessment (AA), archaeological inventory survey (AIS), or archaeological monitoring (AM), but the bulk of the park has not.
- Previous archaeological work in the coastal region of the Waimānalo ahupuaʻa, but not within the park, has yielded multiple traditional Hawaiian sites in subsurface context, including human burials.
- Nearly the entire park is underlain by Jaucas Series (JaC) sand or Beach Sand (BS) deposits, which are associated with traditional Hawaiian sites in subsurface context.
- The only known potential historic properties in the areas likely to be disturbed during implementation of the proposed improvements are the existing park structures. The complex that consists of the former pavilion, the western comfort station, and the crafts building presumably dates to roughly 1960.

3.3.1.1 Historical Context

3.3.1.1.1 Pre-Contact

The project site is in the Waimānalo Ahupuaʻa, which is part of the Koʻolaupoko Moku of Oʻahu Island. The current ahupuaʻa boundary of Waimānalo follows the ridgeline of the Koʻolau Range down to Makapuʻu.[2] Waimānalo (literally, "potable water"), named after its single permanent stream, is associated with a number of Hawaiian accounts of pūnāwai (fresh-water springs), fishing villages and small settlements along the coast. It is also associated with a famous kahuna lapaʻau or traditional healer named Kapoi; the locally-famous sea pond, Pāhonu, at the coastline named for honu (green sea turtles); the Pele and Hiʻiaka saga; and more.

Waimānalo is also blessed with other intangible resources that are highly valued by many in the community to this day. These include its natural beauty and stunning physiography, such as its dramatic setting nestled between the two-thousand-foot tall pali of the Koʻolau ridgeline and the white sands of Waimānalo Bay.

Although Waimānalo's landscape had been fundamentally altered by the time (1930s) of Handy's well-known study of traditional Hawaiian subsistence methods, his observations provide valuable insights on traditional Hawaiian land use. And, even though Waimānalo has long been overshadowed by Kailua Ahupuaʻa higher level of productivity and food-production, Handy provided more information about Waimānalo than Kailua. Among the highlights of his presentation are the following selected passages from Handy and Handy (1972):

> *. . . much of what was until recent years sugar-cane land had previously been planted to taro. There were evidences in 1935 of old loʻi much further inland, in a semicircle at the back of the broad valley [note, here, he is likely referring to an area a few miles northwest of the current project area]. A kamaʻāina of the place at that time named nine such loʻi sections whose water came from springs.*

[2] Makapuʻu (literally, "hill beginning" [with "maka" taking on the meaning of "source" or "origins"] or "bulging eye" [from a reference in the famous saga of Pele and Hiʻiakaikapoliopele]).

> *[Attributing this to Mary Kawena Pukui's research in 1930 Hawaiian language newspaper Hoku o Hawaii] There are two peculiar springs at Waimanalo . . . The one called Kupunakane [Grandfather] is away up in the mountains. The spring called Kupunawahine [Grandmother] is a spring way down on the level land. The strange, strange thing about these two ponds was that on calm, sunny days they begin to cry out to each other. Their voices are soft and sounded very much like a woman mourning her husband. On days that were overcast with clouds in the sky, then the water of the mountain spring changed. The water of the mountain spring became warm and when you drank the water in the lowland spring it was cool, according to the legend.*

Waimānalo's several-miles-long bay, from Wailea (literally, "water of Lea," a goddess of canoe makers) Point bordering Kailua Ahupuaʻa to Makapuʻu Point at its southern boundary with Maunalua Ahupuaʻa, was once a favored canoe-landing location for Hawaiians.

Oral-historical accounts including references to Waimānalo include the famous saga of the Hawaiian volcano goddess, Pele, and one of her sisters, Hiʻiaka (or Hiʻiaka-i-ka-poli-o-pele), whose inter-island travels resulted in commentary about the natural and cultural resources of many places. Hiʻiaka's epic narrative mentions landing at Makapuʻu, trading fish for vegetable foods with the people of Waimānalo, an old village known as Kapua, or according to Pukui et al. (1974:89), Kapuʻa ("the whistle"), and a stream known as Muliwaiʻōlena ("turmeric river" or "yellow river"). According to *Sites of Oahu*, this village (Kapuʻa) and stream mouth (Muliwaiʻōlena) were near the park. Just inland of this village and stream mouth was another wahi pana known as Puʻu Molokaʻi, a place where people from that island settled and eventually became integrated into the greater Waimānalo community.

Another famous place in Waimānalo—that can still be visited and experienced today—is Pāhonu. This fishpond-like structure along the shoreline of the southern Waimānalo coast was said to have been built for a chief who enjoyed the taste of honu (green sea turtle) meat.

Based on available evidence, including its physiographic setting along the shoreline, knowledge of traditional Hawaiian settlement and subsistence patterns, archaeological information, and oral-historical evidence, the park's location may have been a place where fishermen worked to make and repair their gear or craftsmen worked to build and repair waʻa (canoes). Less likely given its proximity to the shoreline and the fact burials have not been found during previous work at the park, but still a possibility (due to sea-level changes over time), the areas to be disturbed by the proposed project may also have been in or near traditional burial areas for makaʻāinana (commoners). It is less likely that the park area was used for Hawaiian settlement or for agriculture given the sandy soil.

3.3.1.1.2 Post-Contact

This section describes general land-use patterns and changes in Waimānalo in the historic period, that is, following the disintegration of the traditional kapu system (circa 1820). In the proto-historic period between the end of "pre-Contact" times and early historic times, Waimānalo was known as a famous canoe landing and departure place. For example, both Kahekili (the Maui ruler who conquered Oʻahu in the early 1780s) and Kamehameha the Great (in 1795) landed portions of their war fleet in Waimānalo.

From as early as the time of Kamehameha, Waimānalo Ahupuaʻa was considered Crown lands. Tulchin and McDermott (2010:13), citing public records from 1929, summarize as follows:

> *"After Kamehameha's conquest of Oʻahu and his division of the island among his chiefs, Waimānalo was apparently retained as Kamehameha's personal property. This seems to be the case as, in 1845, when Kamehameha III, Kauikeaouli, who had "inherited" the land as a son of Kamehameha I, claimed the ahupuaʻa of Waimānalo "to be the private lands of his Majesty Kamehameha III, to have and to hold to himself, his heirs and successors, forever; and said lands shall be regulated and disposed of according to his Royal will and pleasure, subject only to the rights of tenants."*

The middle nineteenth century legal and administrative process known as the Māhele resulted in the Land Commission Award (LCA 7713:ʻāpana 30, Royal Patent 4475) of the entire ahupuaʻa of Waimānalo to the Aliʻi Nui Victoria Kamāmalu, except for makaʻāinana (commoner) claims. According to Tulchin and McDermott (2010:13–14):

> *The ahupuaʻa of Waimānalo was awarded to Victoria Kamāmalu, subject to the kuleana claims of the commoners. She received the third largest share of lands among the aliʻi nui (high chiefs) of the Kingdom of Hawaiʻi, including 47 ahupuaʻa-sized parcels in addition to Waimānalo. Approximately 113 kuleana land claims were awarded in Waimānalo. Nearly all of these Land Commission Awards (LCA) were located along Waimānalo Stream, or its upper tributaries, in the northwestern portion of the ahupuaʻa . . . While the Hawaiian population of Waimānalo was likely much larger and more dispersed in pre-contact times, it nevertheless appears that the traditional Hawaiian population of Waimānalo was always clustered along Waimānalo Stream and its upper tributaries, focused on wetland taro and sweet potato cultivation. Additional kuleana LCAs, primarily consisting of house lots, were scattered along the coastal areas of central and southeastern . . .*

Two makaʻāinana LCAs were located within the area that is now occupied by the park. LCAs (3207 and 3576) are in the park near the eastern parking lot and comfort station; they appear to be associated with what are now the parcels designated as TMKs 4-1-003:019, 020, and 016. These lands are now owned by DHHL or the City and County of Honolulu. A cluster of three awards (234, 3575, and 3578) were in what is now the residential beach lots area just north of the park. All five of these LCAs were designated "house lots."

The two most consequential macro-economic changes in greater Waimānalo that altered land use in the historic period were first ranching, starting around the time of the Māhele, and then commercial sugar cane.

Ranching in the ahupuaʻa was started by an Englishman, Thomas Cummins, who leased nearly the entire ahupuaʻa from Kamehameha III in 1850 (for 50 years). Cummins used this lease to establish a large cattle and horse ranch. Cummins was responsible for building the Waimānalo landing (pier or wharf). The landing projected into Waimānalo Bay from a location near (likely slightly east of) the eastern comfort station. Many royals and other foreign- and native-born elites were entertained by Cummins in the latter half of the 1800s.

Chinese rice farmers by the 1870s were actively working some of the Waimānalo Stream floodplain areas. As happened in many places on O‘ahu, most of these small rice-growing areas were eventually converted to commercial sugar cane.

By around 1880, the Cummins family created the Waimānalo Sugar Co., building a sugar mill near the center of the old town, and a railway down to the landing. Tulchin and McDermott (2010:16–17) summarize this impactful period in Waimānalo’s history:

> *John A. Cummins saw the potential of sugar production at Waimānalo. He organized the Waimanalo Sugar Company and began construction of a sugar mill in 1880. In 1890, J. A. Cummins renegotiated his father’s original lease on the Waimānalo lands for an additional 30 years, and sublet the lands to the Waimanalo Sugar Company. The Waimanalo Sugar Company continued to buy sugar from the Chinese farmers until circa 1900, when the plantation began to do most of its own cultivation.*
>
> *The Waimanalo Sugar Company continued to grow, with increasing lands being put under cultivation. As the plantation grew, former ranch lands were converted to cane fields. New irrigation ditches and railroad lines were constructed, and improvements were made to the mill and Waimanalo Landing.*
>
> *In 1885, W.G. Irwin & Company (which later merged with C. Brewer & Company) became agents for the Waimanalo Sugar Company, with John Cummins remaining manager. John Cummins died in 1913 and his estate sold the remaining fee simple lands and the unexpired lease of Waimānalo lands to the Waimanalo Sugar Company.*
>
> *Water was a continuous problem for most sugar companies, including the Waimanalo Sugar Company. Irrigation for the Waimānalo cane lands was developed from three sources: springs and water tunnels in neighboring Maunawili Valley; Kawainui Swamp in Kailua; and a swampy area near the mouth of Waimānalo Stream, known as the Waimānalo Lagoon … Water from these sources was transported to the Waimānalo cane lands via the Kailua Ditch, Maunawili Ditch, and the Pump Ditch, respectively.*
>
> *The Waimanalo Sugar Company continued operations into the 1940s. However, facing rising operational costs and diminishing returns, the Waimanalo Sugar Company ceased operations in 1947.*

3.3.1.2 Soil

According to the U.S. Department of Agriculture, Natural Resource Conservation Service, the park’s soil consists primarily of Jaucus Series (JaC) and Beach Sand (BS), which is typical of coastal areas of the island. The JaC and BS consist of very deep, excessively drained, very rapidly permeable calcareous sandy soils.

3.3.1.3 Historic Sites identified in Previous Studies

Honua Consulting has concluded that portions of the park where improvements are proposed have not previously been subject to a formal AA or AIS. A few archaeological surveys and studies have

been conducted in nearby portions of the park, primarily where wastewater systems were installed. The most relevant results of nearby archaeological work are summarized below.

- Burial sites and/or discoveries of human skeletal remains have been recorded in the Waimānalo area, but not within the park. State Inventory of Historic Places (SIHP) # 50-80-15-5953 on the mauka side of Kalaniana‘ole Highway near Oluolu Street consisted of three human burials and a cultural layer in subsurface context in a Jaucas Series deposit. In addition, SIHP # 4118 is a burial inadvertently discovered at a private residence in the beach lots northwest of the park. Additional burial sites have been identified down Kalaniana‘ole Highway (towards Makapu‘u) from the park: SIHP #s 3763 and 4007 involve burials reportedly eroding from sand deposits along the shoreline at Kaiona Beach Park; SIHP # 6752 is a subsurface burial site containing of at least four individuals at Kaiona Beach Park; and SIHP # 8749 is a subsurface burial site at a private residence along the shoreline just mauka of Pāhonu Pond.
- Subsurface deposits representing traditional Hawaiian cultural layers have been documented in the portions of the park that has been studied and in nearby areas. This includes subsurface artifacts identified in the area where the IWS associated with the eastern comfort station was installed in the mid-2000s. Artifacts encountered in these cultural layers within the park have included midden, basalt flakes, adze fragments, fire-cracked rocks and charcoal, and an urchin file. Outside of the park the cultural layers have yielded charcoal, a historic roadbed, and traditional Hawaiian material.
- Archaeological monitoring during the installation of the ballfield lights in 2000 did not document any cultural material.
- Further from the park, several surface and subsurface historic properties have been encountered, including:
    - On the north side of Waimānalo Beach Lots, a large area has been designated the Bellows Field Archaeological Area (SIHP # 511) where subsurface cultural layers are common.[3]
    - In the uplands mauka of the highway, SIHP # 4042, consists of portions of the Waimānalo Sugar Co. Irrigation System.

3.3.1.4 Historic Sites in HICRIS

The Hawai‘i Cultural Resources Information System (HICRIS) identifies one site within the park and two residences in the beach lots north of the park. The site within the park (SIHP 50-80-15-08789) is the Waimānalo Beach Park Pavilion. The record, created in 2019 before the pavilion was removed for safety reasons, states that, “The pavilion is significant for its association with the development of beach parks on windward O‘ahu during the 1950s and 60s. Built in 1961, it has been a focal point for community activities ever since.”

[3] The site boundaries for the Bellows Field Archaeological Area, when originally established in 1973 (or 1974), have been shown over the years to be inaccurate. This large polygon boundary has generally been discarded in favor or more discrete sites #s and boundaries but is included in the current study for the sake of completeness. This archaeological area was apparently listed on the National Register of Historic Places in 1973, although some sources state it was 1974; in any case, the original paperwork has not been found (it is not included on the NPS website listing, nor can it be found at the SHPD).

The two residential historic resources are the Alfred Hocking Beach House (aka Hale Pōhaku), which is SIHP 50-80-15-09102, and the Hawaiian Trail and Mountain Club Clubhouse, which is SIHP 50-80-15-09072. Neither of these residential historic resources abut the project site.

3.3.1.5 Potential Impacts

As discussed in Section 3.3.1.4, historic sites have been identified both within the park and the broader Waimānalo region. The original pavilion was a historic site, but was removed in 2019 due to safety concerns, and there are presently no historic properties within the project footprint. The nearest known historic sites are the Alfred Hocking Beach House and the Hawaiian Trail and Mountain Club Clubhouse. The proposed pavilion and comfort stations (Section 2.3) are replacements and would be built on the same footprint and have similar heights as the former or existing structures. The pavilion, and to the extent possible, the comfort stations will be built on the existing concrete pads. The new pavilion would not be considered historic even though it would replace and be remarkably similar in design to the former, historic pavilion. The craft building would not change in appearance.

Both historic homes are more than 800 feet away from any of the proposed infrastructure. The former pavilion and existing comfort stations were/are not visible from the historic homes due to intervening distance, topography, vegetation, and structures. Similarly, the proposed facilities would not be visible from the historic homes and would not change the feeling or context of the historic homes. The same can be said about Pāhonu, which is not currently a listed historic site and is nearly a mile away. Therefore, the known historic properties in the area would not be impacted by the proposed improvements.

As planned, excavation would be limited to (*i*) trenching from the water meters near Kamehameha Highway to the comfort stations to install new water lines; and (*ii*) minor excavations, in areas that were likely previously disturbed, to connect the new comfort station facilities to the existing IWS. Because the water line trenches could occur in areas that have not previously been disturbed, they have the potential to encounter and adversely impact human burials and/or subsurface deposits representing traditional Hawaiian cultural layers. The archaeological monitoring discussed in Section 3.3.1.6 would avoid and minimize this potential adverse effect.

Based on this analysis, the City has concluded that the proposed project has the potential to effect historic resources (unknown, subsurface iwi kūpuna and cultural layers) but is unlikely to adversely affect historic resources due to the implementation of the avoidance and minimization measures outlined in Section 3.3.1.6.

The No Action Alternative does not have the potential to impact archaeological or historic resources.

3.3.1.6 Avoidance, Minimization, or Mitigation Measures

Based on DDC's review of available archaeological evidence and extensive experience with the project site, the following measures would be implemented to avoid and minimize potential impacts to historic and cultural resources:

- The SHPD-Architecture Branch will be consulted during the SMA permit process regarding the historic significance of the existing concrete pad/footing (built circa

1961) of the now razed pavilion, the western comfort station (built 1960) and the eastern comfort station (construction date unknown).

- The SHPD-Archaeology Branch will be consulted during the SMA permit process regarding the location and depth of proposed subsurface excavation (i.e., construction digging) needed to renovate the western and eastern comfort stations; previous archaeological research adjacent to the eastern comfort station, in particular, has demonstrated the existence of a subsurface cultural layer (SIHP # 50-80-15-07042) with pre-Contact radiocarbon dates and traditional Hawaiian artifacts; the uppermost portion of this site is about 105–160 centimeters (roughly 3.5 to 5.25 feet) below ground surface.
- Brief project construction workers on the history of the area and inform them of the possibility of inadvertently encountering unknown historic/cultural resources, including human remains.
- Cease all activities if historic/cultural resources are inadvertently encountered during construction activities and notify SHPD pursuant to HAR § 13-280-3. If iwi kūpuna (i.e., ancestral remains) are identified, all earth moving activities in the area would stop, the area would be cordoned off, and SHPD, the medical examiner, and the Honolulu Police Department would be notified pursuant to HAR § 13-300-40.

3.3.2 CULTURAL IMPACT ASSESSMENT

To assess the potential for the Proposed Action to adversely impact historic and cultural resources, Honua Consulting prepared a Cultural Impact Assessment (CIA). The resulting report, *Cultural Impact Assessment for the Proposed Waimānalo Beach Park Project, Tax Map Key (TMK) [1] 4-1-003:040, Waimānalo, Koʻolaupoko, Oʻahu*, forms the basis for the information and analyses in the following subsections of this document. The complete CIA report is provided in Appendix F.

3.3.2.1 Traditional and Customary Practices and Resources in the Project Area

The ALRFI, the research, and ethnographic interviews prepared as part of the CIA process demonstrate several relevant findings:

- There are no archaeological or historic sites currently located on the project site or its immediate vicinity; however, the former pavilion was considered a historic site and there are multiple archaeological and historic sites in the Waimānalo ahupuaʻa that contribute to the cultural significance of the area. These sites are discussed in detail in Section 3.3.1.
- The project site and the surrounding area are replete with natural resources which possess cultural significance. The moʻōlelo, translated into English as *The Wind Gourd of Laʻamaomao*, documents two wind names of Waimānalo, Limu-li-puʻupuʻu from Waimānalo and ʻAlopali from Pāhonu. Also, the Nāulu rain, which is also the name of a sea breeze common in coastal areas throughout the islands, was associated with Waimānalo.
- Waimānalo was also the subject of, and inspiration for, a host of intangible cultural resources in the form of mele (songs), including: (*i*) Hanohano No ʻO Waimānalo; (*ii*)

Kaulana ʻO Waimānalo; (*iii*) Hanauma; (*iv*) Waimānalo ʻĀina Kaulana; and (*v*) Waimānalo Blues.

- There are a variety of traditional and customary practices which are associated with Waimānalo, Waimānalo Beach Park, and/or the project area, including: (*i*) moʻōlelo (traditional stories); (*ii*) habitation; (*iii*) travel and trail usage; (*iv*) loko iʻa (fishponds); (*v*) loko paʻakai (salt making beds); (*vi*) farming; (*vii*) kapa-making; (*viii*) lei-making; (*ix*) lāʻau lapaʻau (traditional medicine); (*x*) kilo (astronomical/meteorological observation); (*xi*) ceremonial practices; (*xii*) haku mele (song composition) ; (*xiii*) haku oli (chant composition); and (*xiv*) hula.
- The single most important cultural resource within the immediate vicinity of the project is the Gabby Pahinui Waimānalo Kanikapila, an annual music festival organized by the Pahinui family and supporters in honor of the late, great native Hawaiian musician it is named after.

3.3.2.2 Ethnographic Data

In addition to the archaeological, historical, and documentary research discussed in prior sections, Honua Consulting gathered information from individuals with lineal and cultural ties to the area and its vicinity. Information gathered helped identify regional biocultural resources, potential impacts to these biocultural resources, and potential mitigation measures to minimize and/or avoid these impacts. The findings of those efforts are discussed in this section. This ethnographic data is intended to be used to supplement the other research methods noted previously; it is one in a range of research tools employed to gather information about the project area.

Interviews were conducted with five (5) individuals. Initial interviews were conducted with members of the Pahinui family who recommended other individuals to interview. Additionally, Honua Consulting staff attended the public meeting held for this project on June 8, 2023, and contacted any persons from that meeting who identified themselves as wanting to participate in the CIA. While not all individuals responded to this request, all were given the opportunity to participate. Details regarding the interviews are available in the CIA found in Appendix F.

Common sentiments expressed by interviewees include: (*i*) the former pavilion long served as an important cultural nexus for the community; (*ii*) the Proposed Action would be a net benefit for the community; (*iii*) care should be taken to avoid impacts to any iwi kūpuna which may be present in the area; (*iv*) the wall and plaque remaining from the original pavilion should be preserved and incorporated into the new project; and (*v*) the Gabby Pahinui Waimānalo Kanikapila should continue to be held at the new pavilion.

3.3.2.3 Ka Paʻakai Analysis

3.3.2.3.1 Analytical Framework

Articles IX and XII of the Constitution of the State of Hawaiʻi impose on government agencies a duty to promote and protect the cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups when discharging their respective mandates, including issuing permits and approvals such as an SMP Major. To clarify the State's obligation to protect native Hawaiian customary and traditional practices while reasonably accommodating competing private interests,

the Hawai‘i Supreme Court provided the following analytical framework as an outcome of *Ka Pa‘akai O Ka ‘Āina v. Land Use Commission* (94 Hawai‘i 31, 7 P.3d 1068, September 11, 2000). This framework is referred to as “Ka Pa‘akai Analysis” and consists of a three-part assessment of:

1. “Valued cultural, historical, or natural resources” in the project area, including the extent to which traditional and customary native Hawaiian rights are exercised in the project 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(s), if any, to be taken to reasonably protect native Hawaiian rights if they are found to exist.

The Proposed Action is in the SMA and is subject to the applicable requirements of: (*i*) ROH, Chapter 25, (*ii*) HRS, Chapter 343, and (*iii*) its implementing regulations contained in HAR, Title 11, Chapter 200.1. The purpose of this EA is to satisfy these statutory requirements and to provide the necessary information and analyses to support the issuance of an SMP Major by the HCC. As such, the project is also subject to the requirement for a Ka Pa‘akai analysis of the: (*i*) possible existence of, (*ii*) impacts to, and (*iii*) potential mitigation for, adverse effects on traditional and customary native Hawaiian rights and practices which may result from the proposed course of action.

3.3.2.3.2 Identification of Traditional and Customary Practices in Project Area

This first step in the assessment is to ascertain what, if any, traditional and customary practices occur in the project area. This was assessed via the efforts described in Sections 3.3.1, 3.3.2.1 and 3.3.2.2. The City’s assessment is that while there are no traditional and customary practices occurring within the immediate project footprint, the broader park regularly hosts a variety of traditional and customary practices including fishing, surfing, gathering, oli, mele, and hula. The former pavilion served as a cultural nexus for the community and hosted some of the intermittent practices, such as the annual Gabby Pahinui Waimānalo Kanikapila.

In addition, there is a high probability of discovering iwi kūpuna or human burial remains within the vicinity of the project area if excavations are necessary. Encountering human burials is considered probably because families have always lived along the shoreline, burials are frequently associated with the Jaucus Series sands, and burials have been encountered in Waimānalo beyond the park boundary. Native Hawaiian human burials are considered important cultural resources and were identified as a concern during the ethnographic interviews.

3.3.2.3.3 Identification of Impacts to Traditional and Customary Native Hawaiian Rights

Having identified traditional and customary practices within Waimānalo Beach Park, but not on the immediate project site, the second criterion assesses the degree to which the proposed action or its alternatives may have an adverse impact on these resources. Adverse impacts may include alteration, destruction, modification, or harm of sites, including biological resources, sacred places, burial sites. It can also include loss of species and loss of access to areas upon which traditional and customary practices depend.

There was concern expressed by interviewees that construction activities have the potential to inadvertently disturb iwi kūpuna or sensitive natural resources in the surrounding area. However, these concerns are ameliorated by the limited ground disturbance required by the Proposed Action. As planned, excavation would be limited to (*i*) trenching from the water meters near Kamehameha Highway to the comfort stations to install new water lines; and (*ii*) minor excavations in areas that were likely previously disturbed to connect the new comfort stations to the existing IWS. The water line trenches would be dug in areas that are currently well-maintained grass or asphalt-paved driveways and parking areas; the trenches would not lead to the loss of sensitive natural resources or restrictions on cultural practices, but human burials could be encountered.

Construction and operation of the proposed improvements are not expected to otherwise impact traditional or customary practices in the area. The cultural practices identified in Section 3.3.2.3.2 would continue during and after implementation of the Proposed Action. Furthermore, the new pavilion is anticipated to serve as a cultural nexus for the community and host events such as the annual Gabby Pahinui Waimānalo Kanikapila. Thus, the new pavilion would have a beneficial impact on cultural practices at the park.

3.3.2.3.4 Feasible Action to Reasonably Protect Native Hawaiian Rights

The third step of the Ka Paʻakai framework aims to identify "[t]he feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist." These feasible actions could include altering the nature or scope of a proposed project or providing continued access to a project area, as needed to conduct cultural practices. However, based on the information available, the potential for effect or impairment of traditional or customary practices is negligible. Nonetheless, the BMPs identified in Section 2.3.1 should be implemented to ensure that no unanticipated effects to cultural resources occur and that there is a mechanism in place for practitioners to report any such potential occurrences to the project. A cultural monitoring program was recommended during the ethnographic interviews, but this could be an on-call program in which practitioners are notified in the event of an inadvertent find of a human burial.

3.4 COASTAL VIEWS / VISUAL AND AESTHETIC RESOURCES

3.4.1 CONTEXT AND EXISTING CONDITIONS

The objective of CCH's *Oʻahu General Plan* (2021), regarding aesthetic and scenic resources (Chapter III. Natural Environment and Resource Stewardship, Objective B) is to:

> *preserve and enhance natural landmarks and scenic views of Oʻahu for the benefit of both residents and visitors as well as future generations.*

CCH's *Koʻolau Poko Sustainable Communities Plan* (KPSCP; DPP, 2017) reaffirms Koʻolauloa's role in Oʻahu's development patterns as intended in the *Oʻahu General Plan,* by establishing policies and guidelines for future development. One such policy stated in Section 1 of the KPSCP is to "Preserve scenic views of ridges, upper-valley slopes, shoreline areas from the trans-Koʻolau and coastal highways; from coastal waters looking mauka; and from popular hiking trails that extend toward the Koʻolau Mountain Range and mauka from Kawainui Marsh."

The KPSCP makes a clear priority of preserving and enhancing scenic, recreational, and cultural features of the Koʻolauloa landscape that help define the community's sense of place. It further establishes in Section 2.1.3 that:

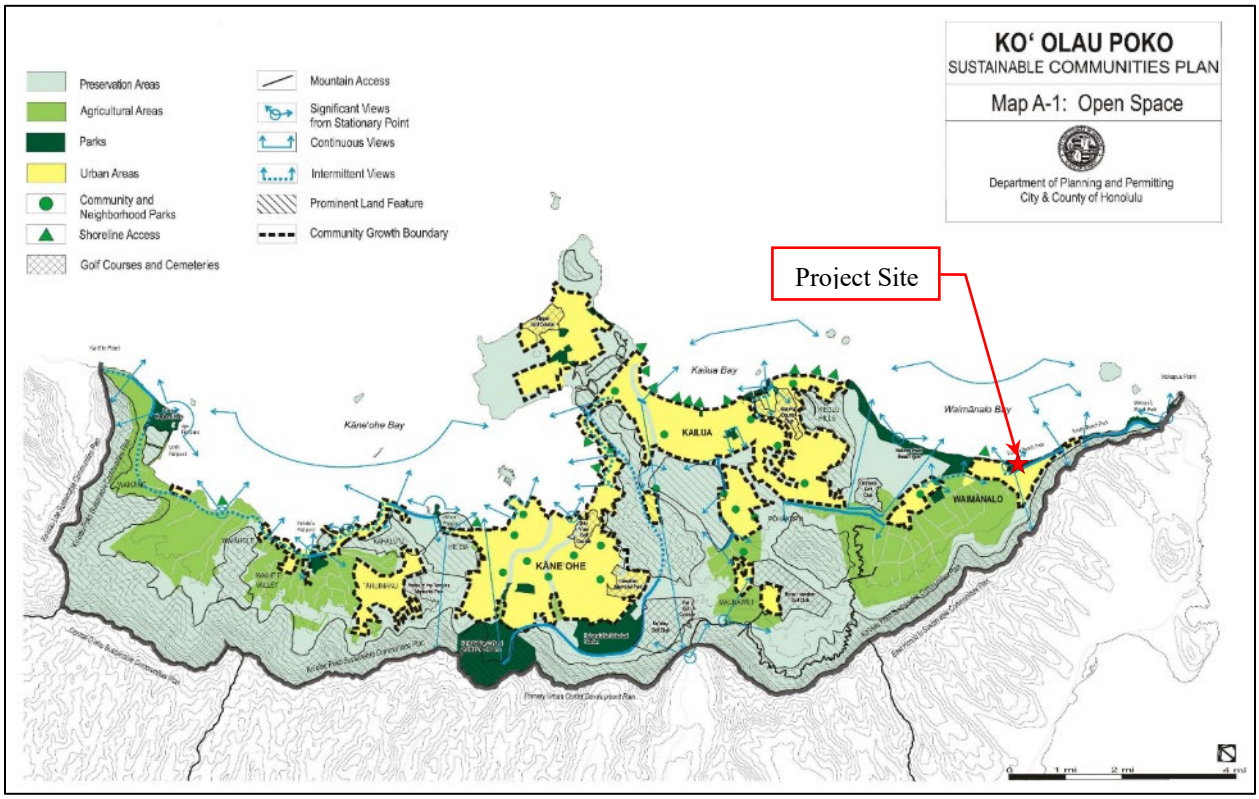
> *Koʻolau Poko's striking topographic features, outstanding beaches and bays, lush valleys, perennial streams and other natural features and landmarks continue to visually define the "windward" sense of place. Views of ridgelines or upper slopes of coastal headlands and mountains from the vantage point of coastal waters, major roads, parks and other public places, are kept free from land disturbance or the encroachment of structures or other projects that would affect the scenic viewplanes.*

Further, in Section 3.1.3.2, the KPSCP states a guideline to "Maintain existing makai view channels along Kalanianaʻole Highway between Makapuʻu Point and Waimānalo Beach Park; …. Avoid visual obstructions, such as walls and dense landscaping."

The KPSCP goes on to describe and define protected scenic land features, viewplanes, and panoramas in *Map A-1* reproduced here as Figure 3-16. It identifies several important vistas in the vicinity of the park, including:

- Continuous or intermittent views from Kalanianaʻole Highway where it fronts the park toward the ocean and toward the mountains.
- A stationary point view from the park that captures Waimānalo Bay.
- Continuous views from Waimānalo Bay to the shoreline and mountains.

Figure 3-16: Open Space and Significant Views in Koʻolau Poko



Source: DPP (2017)

Figures 2-3 through 2-9 are eye-level photographs taken from various locations in the park; they illustrate the views available in those areas. Figure 3-17 provides Google Maps™ Street View screenshots taken from Kalaniana'ole Highway; the view is from an eastbound lane at the western and eastern parking lot entrances. Photographs were selected from these locations because more of the park's improvements are visible from them. The photographs in Figure 3-17 were taken in July of 2019 and the former pavilion is present in photograph A. As can be seen in these photographs, continuous views of Waimānalo Bay and the Pacific Ocean are available from the highway.

Figure 3-17: Makai Views from Kalaniana‘ole Highway Fronting the Park

A. View from Western Parking Lot entrance. Source: Google Street View, July 2019.

B. View from Eastern Parking Lot entrance. Source: Google Street View, July 2019.

3.4.2 POTENTIAL IMPACTS

The proposed project does not have the potential to meaningfully affect scenic views, panoramas, or any other scenic resource, relative to existing conditions. During construction of the proposed project, activities, equipment, material, vehicles, and workers would be at least partially visible from Kalaniana‘ole Highway, locations within the park, and from nearshore water. The construction impacts would contribute a modest, temporary, visual impact.

The proposed project would not involve new walls or dense landscaping that would restrict views. Once the proposed improvements are constructed, they would create a “new” visual presence at the park but would appear similar to the existing/former facilities. The view from Kalaniana‘ole Highway toward the ocean, views within the park, and view from the ocean toward the shoreline would not meaningfully change. The pavilion, comfort stations, and other improvements may be visible, but they would not block, prevent, or appear in those important views in a way substantially different from the existing/former improvements.

None of the scenic resources identified in the KPSCP would be adversely impacted by the proposed project, and, as a result, the visual impact of the proposed project would be negligible, and no mitigation is required.

The No Action Alternative would not have any significant impact on visual and aesthetic resources. The existing improvements present on the site (e.g., comfort station, crafts building, landscaping, etc.) would continue to be present and the views identified in the KPSCP would not change.

3.5 ECOLOGICAL RESOURCES

Some of the existing conditions information and certain avoidance, minimization, or mitigation measures included in this section are drawn from information provided by the DLNR-Division of Forestry and Wildlife (DOFAW) and U.S. Fish and Wildlife Service (USFWS) on similar shoreline projects. Neither agency provided input specific to this project during the scoping period.

3.5.1 EXISTING CONDITIONS

3.5.1.1 Flora and Fauna

The project site is a public beach park with a range of common strand vegetation, both native and introduced, throughout the area. These include ironwood trees (*Casuarina equisetifolia*), coconut palms (*Cocos nucifera*), and naupaka kahakai (*Scaevola taccada*). Large areas of the park, including the areas immediately surrounding the comfort stations, pavilion site, and crafts building, are grassed and that grass is regularly cut to allow for recreational uses.

The only fauna commonly observed at the project site consists of introduced bird species, including mynah, red-crested cardinal, bulbuls, cattle egret, finches, and doves. Also common are pet dogs accompanied by their owners. Also, likely to be present but not as frequently observed are rodents (mice and rats), mongoose, and feral cats.

3.5.1.2 Protected Species

No rare, threatened, endangered, or otherwise protected species are known to exist on the project site. Some protected species, including the Pacific Golden Plover or Kōlea (*Pluvialis fluva*) and Hawaiian hoary bat or ʻŌpeʻapeʻa (*Lasiurus cinereus semotus*), may occasionally visit the project site, but have not been seen during site inspections.

Green sea turtles (*Chelonia mydas*) and Hawaiian monk seal (*Neomonachus schauinslandi*) likely visit the nearshore waters offshore from the park and could haul out on the sandy beach. These species have not been seen during site inspections. The sandy beach is over 100 feet from the comfort stations and other facilities that would be improved as part of the proposed project.

Other protected species may occur in nearshore waters or overfly the area; these include other sea turtle species, seabirds (shearwaters, petrels, terns, tropicbirds, frigates, terns), waterbirds (stilts, coots, gallinules, ducks), and the Hawaiian short-eared owl or pueo.

3.5.1.3 Sanctuaries

The nearest wildlife sanctuaries are in Waimānalo Bay: (*i*) Mānana Island Seabird Sanctuary, approximately 2.2 miles to the east, and (*ii*) Kāohikaipu Islet Seabird Sanctuary, approximately 2.45 miles to the southeast. Both sanctuaries are owned by the State of Hawaiʻi and operated by DOFAW.

3.5.1.4 Wetlands and Streams

Waimānalo Bay, which the park is situated adjacent to, is classified by the State of Hawaiʻi, Department of Health, Clean Water Branch as Class AA Marine Waters. A map of wetlands in the project vicinity prepared from the U.S. Fish and Wildlife Service's National Wetlands Inventory is provided in Figure 3-18.

Figure 3-18: USFWS Wetlands Mapper

Source: USFWS (2023)

As can be seen from Figure 3-18, there are three bands of nearshore marine wetlands extending from the beach toward the ocean. They are:

- M2USB. These are high-energy coastal waters exposed to open ocean waves and currents. This zone is intertidal, with a substrate that is flooded and exposed by tides daily, including an associated splash zone. The shoreline is unconsolidated, sandy beach and coastal flat.
- M1UBL. These are high-energy coastal waters exposed to open ocean waves and currents. This zone is subtidal, with a substrate that is continuously covered with tidal water. The bottom is an unconsolidated, sandy coastal flat.
- M1RF1L. The remainder of the nearshore environment is classified as marine, subtidal habitat (i.e., below the extreme low tide line) with coral reef and tidal salt water continuously covering the substrate.

Kaiona Stream at the southeastern extent of the site is also a wetland. The stretch of the stream nearest the ocean is classified as E1UBL, which is an estuarine tidal habitat that is semi-enclosed by land and continuously has salt water over an unconsolidated bottom. Above that, the river

wetland is classified as R4SBAx, which is a channelized river that has surface water present for brief periods during the wet season.

3.5.1.5 Beaches and Coastal Dunes

The park's soil consists primarily of Jaucus Series (JaC) and Beach Sand (BS), which is typical of coastal areas of the island. There is a wide sandy beach on the makai side of the park and there are geomorphic dunes present in the portion of the park mapped as JaC and BS.

3.5.1.6 Fisheries and Fishing Grounds

There are no designated "fishing grounds" in Hawai'i. There are areas where larger pelagic fish (marlin, ahi, mahi, etc.) and bottom fish (onaga, 'ehu, opakapaka, etc.) are generally pursued; those areas tend to be where fish aggregating devices and artificial reefs have been established or the water depth and habitat are favorable (e.g., Penguin Banks or Pinnacle). Shore fishing and spear fishing is popular in Waimānalo Bay and, pursuant to HRS § 188-35, allowed throughout the bay. The nearest areas where fishing is restricted is in Kāne'ohe Bay, several miles to the northwest.

3.5.2 POTENTIAL IMPACTS

The proposed project would facilitate the continued use of the project site for recreational activities consistent with its intended use as a beach park. The on-site ecosystem, which is not important to any protected species, would remain unchanged. All existing landscaping in the park, including trees, would be retained during and after the implementation of the proposed improvements. Species used to restore areas following construction would be selected to be consistent with existing vegetation and be drought and salt tolerant, and naturally hardy or endemic to the shoreline area. The proposed park improvements would not alter the character of the shoreline area; work would not occur within 100 feet of the shoreline. The proposed project would not alter dune topography; no mass grading is proposed.

Storm water runoff quantity and quality would not be affected; storm water would continue to be absorbed in the highly permeable Jaucus Series (JaC) and Beach Sand (BS) deposits and would not flow over land to any wetlands. Project components would not modify waste generation at the park and all components are at least 100 feet from wetlands. No protected species would be affected by the proposed improvements in a manner different than how they may be affected by the existing structures. Thus, the proposed project does not have the potential to result in more than a negligible impact on ecological resources.

The No Action Alternative does not have the potential to directly impact ecological resources.

3.5.3 AVOIDANCE, MINIMIZATION, OR MITIGATION MEASURES

To avoid and minimize potential impacts to protected species and other ecological resources, the proposed project would:

- Comply with the CCH's *Rules Relating to Water Quality*.
- Contractors would be directed to (*i*) clean all equipment, material, and personnel of excess soil and debris to minimize the risk of spreading invasive species; (*ii*) minimizing the movement of plant or soil material between worksites; and (*iii*) consult

the O‘ahu Invasive Species Committee (OISC) at (808) 266-7994 to learn of high-risk invasive species in the area, and ways to mitigate their spread.

- Related to the Hawaiian hoary bat: Woody plants greater than 15 feet tall would not be disturbed, removed, or trimmed during the bat birth and pup rearing season from June 1 through September 15.
- Related to seabirds and sea turtles:
  - Construction activities would not occur at night unless highway usage/traffic control permits require night work. If night work is required, it would not occur during seabird fledging season (September 15 through December 15) and fully shielded lights would be used outside of that period.
  - Outside lights installed as part of the project (e.g., security lights) would be dark sky compliant and wildlife friendly by being fully shielded and considered “acceptable” per the DLNR guidance (https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf). They would (*i*) utilize automatic motion sensor switches and controls when possible; (*ii*) be designed to avoid light trespass so the light sources (the bulbs or diodes) are not visible from the shoreline area or nearshore waters; and (*iii*) use light sources that are “warm” with ratings of 2700 Kelvin or lower, which typically have a lower blue light content.
- Related to waterbirds: In the unlikely event that an active nest or brood is found: (*i*) contact USFWS at 808-792-9400 and/or DLNR-DOFAW-O‘ahu Branch at (808) 973-9778 within 48 hours for further guidance, (*ii*) establish and maintain a no-work 100-foot buffer around the nest and/or brood until the chicks/ducklings have fledged, and (*iii*) have a biological monitor that is familiar with the species’ biology present during all construction activity until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.
- Related to pueo: Should a pueo nest be observed in the project area, DOFAW staff would be notified, and a buffer zone established until nesting is complete.
- Maintain landscaping on the project parcel.

3.6 DRAINAGE

3.6.1 EXISTING CONDITION

There are no storm drain facilities within the project site except for storm drain easements associated with drainage facilities along Kalaniana‘ole Highway (Figure 2-1). The storm drains along Kalaniana‘ole Highway address highway runoff. The highway drainage system includes an outfall at the shoreline in the north portion of the park (Figure 3-10). The bulk of the park is unhardened and consists of very permeable Jaucus Series (JaC) and Beach Sand (BS) deposits. There is no evidence of erosion or concentrated storm water flow at the site.

Only a small portion of the park, roughly 7 percent or 2 acres, is impervious/hardened. The two parking areas account for most of that impervious area with the concrete pads for the structures contributing minor impervious areas. The small percentage of impervious area and the fact that

the soil is very deep, excessively drained, very rapidly permeable calcareous sandy soils means that storm water is quickly absorbed into the soil and drainage infrastructure is not required.

3.6.2 POTENTIAL IMPACTS

The impervious surface at the park will continue to be roughly 7 percent of the park area. The proposed project would not modify the site's drainage pattern; no mass grading would occur. Storm water from roofs and hardened surfaces would continue to be directed to surrounding landscaped areas where it would percolate into the porous sandy soil, as it does at the present time. Thus, the proposed project does not have the potential to result in more than a negligible impact on storm water quality, storm water quantity, or the nearby drainage system.

3.6.3 AVOIDANCE, MINIMIZATION, OR MITIGATION MEASURES

Because no impacts to storm water quality or quantity are anticipated, no measures are recommended.

3.7 OTHER RESOURCES AND TOPICS

Due to the nature of the proposed project – replacing park structures and implementing repairs to existing facilities that are consistent with all applicable land use rules and regulations – the proposed project has no potential to substantially impact other resources or conditions. Therefore, the following topics, which are sometimes discussed in detail in EAs, are only briefly mentioned in this section:

- *Air Quality*. Air quality in the region is good; all federal and state air quality standards have been attained. The project would not have more than a negligible effect on air quality, and any effect would be restricted to the brief construction periods.
- *Noise*. The predominant noise sources in the vicinity of the project site are traffic along Kalaniana‘ole Highway and background noise from the ocean due to wave action. The project would not have more than a negligible effect on sound levels in the area, and any effect would be restricted to the brief construction periods.
- *Public Utilities, Infrastructure, and Services*.
    - *Water*. The Board of Water Supply provides potable water to the project site, which will continue to be the case. The rate of water usage is not anticipated to increase since facilities would have a similar capacity.
    - *Electricity and communications.* Overhead lines provide electrical and communication services to the project site and adjacent areas, with the lines being underground within the park. No increase in electrical usage is anticipated.
    - *Wastewater*. Waimānalo Beach Park is, and would continue to be, served by permitted IWSs. There is not a documented history of unusual releases or other issues associated with the wastewater system in the immediate project area.
    - *Solid waste.* Solid waste is collected by park staff and disposed of by the Department of Environmental Services, Solid Waste Division. Although waste

would be generated during the brief construction periods, once the improvements were complete the rate of waste production and the ability to manage the waste would not be affected.

- *Fire.* The project site is primarily served by the Fire Station No. 27 (Waimānalo) at 41-1315-41-1319 Kalanianaʻole Hwy.
- *Police.* The project site is in Honolulu Police Department District 4. District 4 is the largest patrol area of the Honolulu Police Department, extending from Makapuʻu Point to Kawela Bay on the windward side of Oʻahu. Its administrative office is in Kāneʻohe, located at 45-270 Waikalua Road.
- *Schools.* The community around the park site is served by: (*i*) Blanche Pope Elementary School, and (*ii*) Waimānalo Elementary & Intermediate School.
- *Other services.* Primary medical services for the project area are provided by Adventist Health Castle (formerly Castle Medical Center) located at 640 ʻUlukahiki Street in Kailua; Waimānalo Health Center Hale Ola ʻAlua, located at 41-1295 Kalanianaʻole Highway, is a federally qualified community health center but does not provide emergency medical services.
- *Roads.* The project parcel is directly accessed from Kalanianaʻole Highway. This highway is classified as the principal arterial roadway for this portion of Oʻahu and has a posted speed limit of 35 miles an hour in the vicinity of Waimānalo Beach Park. This highway experiences roughly 10,000 vehicle trips each day (accounting for both directions of travel) with the peak morning hour being 6 to 7 a.m. and the peak afternoon hour being 3 to 4 p.m., both with approximately 800 trips accounting for both directions.

3.8 CUMULATIVE IMPACTS

Cumulative effects are impacts which result from the incremental effects of an activity when added to other related past, present, and reasonably foreseeable future action, regardless of which agency, organization, or individual undertakes such action(s). Cumulative impacts may result from individually minor but collectively significant actions taking place over time.

The proposed project consists of improving the park's facilities in a manner that allows for the same pattern and intensity of use. This would result in the continued recreational use of a park as intended. The proposed project is not contingent on any other action, public or private, and would not individually cause future actions to be taken by any public or private entities. Therefore, the project would not generate cumulative impacts.

4 CONSISTENCY WITH LAND USE PLANS, POLICIES, AND CONTROLS

The following sections analyze the proposed project in accordance with the objectives, policies, and guidelines established in Chapters 25-3.1 and 25-3.2, ROH, as well as Chapters 205A-2 and 205A-26, Hawai‘i Revised Statutes (HRS). These are commonly referred to as SMA and Coastal Zone Management (CZM) objectives, policies, and guidelines.

4.1 RECREATIONAL RESOURCES

4.1.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should provide coastal recreational opportunities accessible to the public. All development in the SMA is subject to reasonable terms and conditions to ensure that adequate access to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles, and adequate and properly-located public recreation areas and wildlife preserves are reserved. The Council shall seek to minimize, where reasonable: 1) Any development which would reduce the size of any beach or other areas usable for public recreation; and 2) Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the SMA, and the mean high tide line where there is no beach.

The recreational objective of the CZM program is to provide coastal recreational opportunities accessible to the public. Its policies are to:

> 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 and ecosystem value, including but not limited to coral reefs, surfing sites, fishponds, sand beaches, and coastal dunes, when these resources will be unavoidably 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, and 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, and county authorities; and crediting that dedication against the requirements of section 46-6.

4.1.2 DISCUSSION

The existing conditions and the proposed project's potential effect on recreational resources is detailed in Section 3.2. The proposed project will not result in any change to existing public shoreline access, recreational areas, or public open spaces. The proposed replacement of the dilapidated comfort stations will fulfill a public need. The proposed pavilion will restore a public recreational resource. The repair of the crafts building will also restore a public recreational resource. The proposed project will benefit the recreational resources of the community.

4.2 HISTORIC AND CULTURAL RESOURCES

4.2.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the CZM area that are significant in Hawaiian and American history and culture.

The CZM's policies are to:

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.

4.2.2 DISCUSSION

The existing conditions and the proposed project's potential effect on historic and cultural resources is detailed in Section 3.3. That section outlines that:

- The City and County of Honolulu has concluded that the proposed project has the potential to affect historic resources (unknown, subsurface iwi kūpuna and cultural layers) but is unlikely to adversely affect historic resources due to the implementation

of the avoidance and minimization measures outlined in Section 3.3.1.6, which includes archaeological monitoring during trenching for the new water lines.

- The City and County of Honolulu's assessment is that while there are no traditional and customary practices occurring within the immediate project footprint, the broader park regularly hosts a variety of traditional and customary practices including fishing, surfing, gathering, oli, mele, and hula. Construction and operation of the proposed improvements are not expected to impact traditional or customary practices in the area. The new pavilion is anticipated to serve as a cultural nexus for the community and host events such as the annual Gabby Pahinui Waimānalo Kanikapila. Thus, the new pavilion would have a beneficial impact on cultural practices at the park.

4.3 SCENIC AND OPEN SPACE RESOURCES

4.3.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources. The Council shall seek to minimize, where reasonable any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast.

CZM policies related to scenic and open space are:

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 those 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.

4.3.2 DISCUSSION

The existing conditions and the proposed project's potential effect on scenic resources is detailed in Section 3.4. The proposed project will not affect scenic and open space resources. None of the identified important views or other scenic resources identified in the KPSCP and its Open Space map would be impacted by the proposed project (see Section 3.4). All proposed improvements would be similar to the existing and former structures at the park, and, except for the ballfield lights, they comply with applicable height regulations. Therefore, the proposed project is not anticipated to result in adverse impacts to scenic or open space resources.

4.4 COASTAL ECOSYSTEMS

4.4.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems.

CZM policies related to coastal ecosystems are:

> 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 source water pollution control measures.

4.4.2 DISCUSSION

No significant impacts to coastal ecosystems are expected should the Proposed Action proceed because the locations where construction would occur and structures placed do not harbor any unusual ecosystems or species. The proposed construction activity will be confined the areas where similar existing facilities previously or current are located and trenching between the water meters at Kamehameha Highway and the comfort stations where maintained grass or asphalt-paved surfaces existing. No development is proposed in the shoreline area. The following points address specific ecosystem topics and why the project is not anticipated to result in adverse impacts to these resources.

- Wetlands: The area immediately north and east of the site is Waimānalo Bay/Pacific Ocean and is classified high-energy coastal waters with varying substrate and water depths (Section 3.5.1.4). The proposed developments are over 95 feet from the shoreline and wetlands beyond. The use of construction BMPs (Section 2.3.1), which include measures to manage storm water, will avoid and minimize the potential impacts to storm water quality. Therefore, no impacts to wetlands or protected coastal ecosystems are anticipated.
- Beaches and Coastal Dunes: The pavilion site's subsurface consists of Jaucus Series (JaC) sand; there is a sandy beach fronting the park and geomorphic dunes are present in the area. No impacts to beaches and coastal dunes are anticipated as the developments will not change the grade, will not require extensive excavation, and will be sited where former or existing park structures have been for many decades. The proposal will not increase the site's total impervious surface; storm water will continue

to run off structure roofs and concrete pads and then infiltrate into the porous, sandy subsurface.

- Flora: The project parcel is a public beach park with a range of common strand vegetation, both native and introduced, throughout the area (Section 3.5.1.1). These include ironwood trees (*Casuarina equisetifolia*), coconut palms (*Cocos nucifera*), and naupaka kahakai (*Scaevola taccada*). Existing landscaping in the park, including trees, would be retained. There will be no substantial modifications to the flora at the park and the irrigation system will not be modified.
- Fauna: Several federally and state-listed species (i.e., Hawai‘i Hoary Bat, green sea turtle, Band-rumped Storm-Petrel, Hawaiian Petrel, and Newell's Shearwater) may appear in the project's vicinity (Section 3.5.1.2); however, none have been observed within the project site. Artificial lighting can be disruptive to avifauna and marine life in their navigation, nesting, and reproductive cycles. The proposed project will not increase the use of outdoor lighting at the park and no nighttime work (from sunset to sunrise) is planned. Additional measures, including those related to the Hawaiian hoary bat are outlined in Section 3.5.3.

Any impacts to nearshore marine habitats from construction-phase runoff will be avoided and minimized by construction BMPs to address storm water runoff (Section 2.3.1). The project will comply with CCH's *Rules Relating to Water Quality*.

4.5 ECONOMIC USES

4.5.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should provide public or private facilities and improvements important to the State's economy in suitable locations.

CZM policies related to economic uses are:

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 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.

4.5.2 DISCUSSION

The proposed project will not have a significant impact on the local economy. It is a modestly scaled project that consists of replacing a former pavilion, replacing two deteriorating comfort stations, and repairing a crafts building within an existing public beach park, on a lot appropriately zoned (P-2 General Preservation) for this use. The location, design, construction, and repair of the proposed park improvements are intended to minimize its exposure to coastal zone hazards while providing recreational opportunities to the community. Waimānalo Beach Park will continue to be a recreational resource for the community and the project will not result in any change to the economic uses of the park, if any, and surrounding area. Commercial uses and activities in the park will continue to be subject to the applicable rules.

The project is consistent with applicable land use rules and will not increase the capacity of the park. Infrastructure expansion will not be required to support the proposed park improvements. The project will not induce additional growth or development in its vicinity, such as through the expansion of public utilities or roadways.

4.6 COASTAL HAZARDS

4.6.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should reduce hazard to life and property from coastal hazards.

CZM policies related to coastal hazards are:

> 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.

4.6.2 DISCUSSION

Section 3.1 discusses coastal hazards in detail. The proposed park improvements will be outside of the shoreline setback area. The project will not increase the susceptibility of the site to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, or point/nonpoint source pollution hazards. Like all coastal lands, the project site is vulnerable to coastal hazards to a degree. The measures the project will implement, the fact that the western comfort station and pavilion is located on land where the elevation is roughly 17 feet above MSL, the eastern comfort station is located on land where the elevation is roughly 13 feet above MSL, and all proposed improvements are at least 95 feet from the shoreline, will reduce, but not eliminate, the potential threat to life and property from coastal hazards.

- Sea Level Rise Exposure Area (SLR-XA): The University of Hawai‘i (UH) Pacific Island Ocean Observing System SLR Viewer shows that the areas where improvements

are proposed (Figure 2-3 and Figure 2-4) will not be impacted by 3.2 feet of SLR, which is not expected to occur until 2100. No development is proposed in the 60-foot shoreline setback area or the SLR-XA. The UH Coastal Geology Group conducted research and performed coastal erosion modeling along Waimānalo Bay and found that the beach fronting the proposed project is accreting at an estimated rate of roughly +0.4 feet/year. The modeling suggests that with sea level rise, the accreting trend may end and erosion occur, but erosion is not anticipated to impact the portion of the park where improvements are proposed in the foreseeable future.

- Flood District: The entire project parcel has been designated by FEMA as being in Flood Zone X; Zone X is an area determined to be outside of the 0.2 percent annual chance floodplain. No base flood elevations or depths are shown within these zones (Figure 3-3). The amount of impervious area on the site will not increase, as the proposed improvements will be constructed where concrete pads currently exist. The project does not need to address Flood Hazard Ordinance, Chapter 21A, ROH, because it is in Flood Zone X.
- Storm Surge: According to the National Storm Surge Hazard Maps, the portion of the project parcel where development is proposed would not experience storm surge during a Category 4 hurricane (Figure 3-4).
- Tsunami: The project site is located within the tsunami evacuation zone or extreme tsunami evacuation zone (Figure 3-2). Evacuation requirements, which are enforced based on guidelines issued by the Department of Emergency Management will be complied with should a tsunami be forecast.

4.7 MANAGING DEVELOPMENT

4.7.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should improve the development review process, communication, and public participation in the management of coastal resources and hazards.

CZM policies related to managing development are:

> 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.

4.7.2 DISCUSSION

The proposed project is complying with applicable laws and policies regarding coastal development. No variances are being requested. Chapter 6 details the outreach conducted to date

and planned. The City will continue to work cooperatively with all government agencies with oversight responsibilities to facilitate efficient processing of permits and informed decision-making by the responsible parties.

4.8 PUBLIC PARTICIPATION

4.8.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should stimulate public awareness, education, and participation in coastal management.

CZM policies related to public participation are:

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.

4.8.2 DISCUSSION

The City has given due consideration to coastal hazards and management practices in the preparation of its designs. None of the proposed developments in the SMA will prevent or otherwise conflict with public participation in coastal zone planning and management.

Chapter 6 details the outreach conducted to date and planned. The public will continue to be made aware of the project and given the opportunity to review the proposed project during the EA phase of the permitting process. A public notice of availability for the DEA will be published in the ERP's bi-monthly bulletin, *The Environmental Notice*. During the 30-day public review period the public can review and comment on the DEA, pursuant to the requirements of HAR § 11-200.1. A public meeting will be held during the comment period and a presentation regarding the project will be offered to the Waimānalo Neighborhood Board and to the Office of Councilmember Esther Kiaʻāina. The SMA Major Permit process will provide additional opportunities for public participation.

4.9 BEACH AND COASTAL DUNE PROTECTION

4.9.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should protect beaches and coastal dunes for public use and recreation, for the benefit of coastal ecosystems, and use as natural buffers against coastal hazards.

CZM policies related to beaches and coastal dunes are:

A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and 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.

4.9.2 DISCUSSION

The project does not propose any activities that would restrict or preclude access to, or use of, public beaches or recreational opportunities. The proposed improvements are all located within Waimānalo Beach Park at least 95 feet from the beach. The park itself was built on a dune system; however, the action poses no risk to beaches and is fully consistent with the objectives and policies related to beach and coastal dune protection contained in HRS § 205A-2(b)(9) and § 205A-2(c)(9), as amended. No development is planned seaward of the shoreline setback, and no interactions with littoral processes would be involved. Although the improvements would occur within the coastal dune area, the dunes would not be impacted because developments will not change the grade, will not require extensive excavation, and will be sited where former or existing park structures that have been for many decades.

4.10 MARINE AND COASTAL RESOURCES

4.10.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA should promote the protection, use, and development of marine and coastal resources to assure their sustainability.

The Council shall seek to minimize, where reasonable, dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon, and any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

CZM policies related to marine resources are:

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 upon ocean and coastal resources; and

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

4.10.2 DISCUSSION

The proposed project will not involve work that affects bays, estuaries, or nearby water features. Waimānalo Bay, which is designated as a marine wetland, is to the north and east of where development is proposed. The improvements are not expected to have an adverse impact on water quality. Storm water will be managed on-site and construction-related activities will employ standard BMPs relating to storm water management and will comply with DPP's *Rules Relating to Stormwater Quality*. No adverse impacts to marine and coastal resources are anticipated. The project will have a limited disturbance area and will not trigger the requirement for a National Pollutant Discharge Elimination System, Notice of Intent – Construction.

4.11 LIQUID AND SOLID WASTE PROVISIONS

4.11.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA must be subject to reasonable terms and conditions to ensure that provisions are made for solid and liquid waste treatment, disposition, and management, which will minimize adverse effects upon SMA resources.

4.11.2 DISCUSSION

Construction waste and recycling will be gathered in on-site dumpsters and periodically deposited at appropriate off-site locations. The existing liquid and solid waste service at the park will not need to be modified to address the proposed improvements because their capacity will be similar to the former and existing park facilities. Consequently, the proposed park improvements will not contribute any additional burden on the wastewater system, which was designed to serve the existing facilities. The continued use of the park and the improved facilities will likely not increase the rate of waste production at the park. In sum, once the improvements are complete the proposed project will not contribute to liquid or solid waste generated at Waimānalo Beach Park and will not adversely impact SMA resources.

4.12 ALTERATIONS TO EXISTING LANDFORMS

4.12.1 OBJECTIVES, POLICIES, AND GUIDELINES

Development in the SMA is subject to reasonable terms and conditions to ensure that alterations to existing landforms and vegetation; except crops, and construction of structures cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.

4.12.2 DISCUSSION

The proposed project will not alter existing landforms or vegetation, nor will the park improvements cause adverse impacts to water, scenic, or recreational resources and/or amenities. It is located and designed in a way to minimize its susceptibility to damage from floods, landslides, erosion, siltation, and earthquakes.

4.13 CONSISTENCY WITH PLANS AND REGULATIONS

4.13.1 OBJECTIVES, POLICIES, AND GUIDELINES

No development shall be approved unless the Council has first found that the development is consistent with the county general plan, development plans and zoning.

4.13.2 DISCUSSION

The proposal is generally consistent with the applicable plans and regulations, as detailed in the following sections.

4.13.2.1 O‘ahu General Plan

The proposed project is generally consistent with the *O‘ahu General Plan*. Natural Environmental and Resources Stewardship Objective A, Policy Number 4, requires development projects consider natural features and hazards such as slope, inland and coastal erosion, flood hazards, water-recharge areas, and existing vegetation, as well as plan for coastal hazards that threaten life and property. The proposed development is located further mauka than the SLR-XA and shoreline setback. This fact addresses Objective A, Policy 4 by minimizing the potential for coastal hazards to affect the development.

The project also meets Objective F, Policy Number 3, which requires new developments in stable established communities and rural areas to be compatible with the existing communities and areas. The project, which restores and maintains park amenities without increasing capacity, is compatible with the surrounding area, which is not targeted for substantial growth.

The *O‘ahu General Plan* also calls for the protection of the people of O‘ahu and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions. The proposed development will be outside of the shoreline setback, mauka of the SLR-XA, and outside a flood zone. Therefore, it will adequately protect the people and their property.

4.13.2.2 Koʻolau Poko Sustainable Communities Plan

The proposed project is generally consistent with the KPSCP. The KPSCP Map A-1: Open Space map (reproduced here as Figure 3-16) identifies the project parcel as an Urban Area with a Park area designation . According to Section 3.2 of that report, the KPSCP identifies two types of parks: (*i*) island-wide and (*ii*) community-based; Waimānalo Beach Park is classified under island-wide as a "Beach/Shoreline Park". Pursuant to Section 3.2.1 of the KPSCP, "Active Recreation Areas" should provide amenities and service facilities to accommodate "tailgate" picnics in parking areas for sporting events, including shading canopy trees within the parking lot as well as nearby picnic tables and outdoor grills. The proposed park pavilion will provide a gathering space and shade for the public as the former pavilion did and is consistent with this and other guidelines. The replacement comfort stations and repair of the crafts building will continue to help support public park usage.

4.13.2.1 Land Use Ordinance

The Proposed Action is in the CCH's P-2 General Preservation District (Figure 1-2). The intent of the P-2 General Preservation District is to allow for the preservation and management of major open space and recreational lands, and lands of scenic and other natural resource value, for the public's use and enjoyment. Because the Proposed Action consists of restoring or replacing park facilities it is an allowable use per the CCH's LUO. In addition, the proposed park improvements will meet applicable design standards with respect to minimum lot area, minimum front and side yards, maximum building area, and height, as summarized in Table 4-1. The only aspects of the site and the developments on it currently or proposed that do not meet the LUO criteria are the lot depth and the height of the ballfield lights.

Table 4-1: Summary of LUO Compliance

LUO Standard	*P-2 Zone*	*Existing Conditions*	*Proposed Action*
Minimum Lot Area	5 acres	29.123 acres (TMK 4-1-003:040)	No change
Minimum Lot Width	200 feet	~4,400 feet	No change
Minimum Lot Depth	200 feet	~140 feet west of Kaiona Stream 0 feet east of Kaiona Stream	No change
Front Yard	30 feet	32 feet	No change
Side Yard	15 feet	62 feet	No change
Rear Yard	15 feet	95 feet	No change
Maximum Building Area	5%	0.5%	0.8%
Maximum Height	15-25 feet, see note 1	Buildings: ~15 feet Ballfield Lights: ~60 feet	Buildings: ~22 feet Lights: ~60 feet
Height Setbacks	Setback addl. 1' for every 2' over 15'	Buildings: comply Ballfield Lights: see note 2	Buildings: comply Ballfield Lights: see note 2

Notes: 1. Heights above the minima of the given range require height setbcks or may be subject to other requirements.
2. All of the ballparks lights are roughly 60 feet tall and therefore not in compliance with the maximum height standard. Three of the ballpark lights along Kamehameha Highway are roughly 30 feet from the property line and therefore not in compliance with the height setback standard. As noted in Section 1.5, a zoning waiver will be sought to address these exceedances.

Source: LUO Standard and P-2 Zone column: Land Use Ordinance, Department of Planning and Permitting, City and County of Honolulu, December 2020, Revised June 1, 2021. Other columns: Planning Solutions, Inc.

The lot depth is a function of the shoreline and the presence of Kamehameha Highway. In most areas, including where improvements are proposed, the depth of the lot exceeds 200 feet. However, at the eastern end of the park, east of the camping area and Kaiona Stream, the depth of the park thins to less than 200 feet and, at the far east end, to nothing. No zoning waivers or additional permits are known to the required to address the lot depth issue.

All of the ballpark lights are roughly 60 feet tall and exceed the LUO's maximum height standard. Three of the ballpark lights along Kamehameha Highway are roughly 30 feet from the property line and do not comply with the LUO's height setback standard. As noted in Section 1.5, a zoning waiver will be sought to address these exceedances.

4.13.2.1 Shoreline Setback Ordinance

No development is proposed within the shoreline setback area. The proposed park improvements are all sited more than 95 feet from the shoreline.

The shoreline setback is currently 40 feet. On June 30, 2024, the shoreline setback will become 60 feet plus 70 times the erosion rate. As discussed in Section 3.1.6, the average shoreline erosion rate is +0.36 feet per year. Therefore, the shoreline setback will be 60 feet after June 30, 2024. Consequently, the proposed project is consistent with the Shoreline Setback Ordinance.

5 ANTICIPATED DETERMINATION

5.1 SIGNIFICANCE CRITERA

Hawai‘i Administrative Rule § 11-200.1-14 establishes procedures for determining whether an EA should be prepared or if an EIS is warranted. HAR § 11-200.1-14(d) provides that proposing agencies should issue an environmental impact statement preparation notice for actions that it determines may have a significant effect on the environment. HAR § 11-200.1-13(b) lists the following criteria to be used in making that determination.

In most instances, an action shall be determined to have a significant effect on the environment if it:

4. Irrevocably commits (e.g., results in the loss or destruction of) a natural, cultural, or historic resource;
5. Curtails the range of beneficial uses of the environment;
6. Conflicts with the State's environmental policies or long-term environmental goals established by law;
7. Results in a substantially adverse effect on the economic welfare, social welfare, or cultural practices of the community or State;
8. Results in a substantial adverse effect on public health;
9. Involves adverse secondary impacts, such as population changes or effects on public facilities;
10. Involves a substantial degradation of environmental quality;
11. Is individually limited but cumulatively has substantial adverse effect on the environment or involves a commitment for larger actions;
12. Results in a substantial adverse effect on a rare, threatened, or endangered species, or its habitat;
13. Results in a substantial adverse effect on air or water quality or ambient noise levels;
14. Has a substantial adverse effect on or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, sea level rise exposure area, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;
15. Has a substantial adverse effect on scenic vistas and viewplanes, during day or night, identified in county or state plans or studies; or,
16. Requires substantial energy consumption or emits substantial greenhouse gases.

5.2 FINDINGS

The potential effects of the Proposed Action were evaluated relative to these 13 significance criteria. The City's findings with respect to each criterion are summarized in the following subsections.

5.2.1 IRREVOCABLE LOSS OR DESTRUCTION OF NATURAL, CULTURAL, OR HISTORIC RESOURCES

The Proposed Action consists of restoring or replacing developments within an existing beach park. As discussed in Sections 3.3 and 3.5, there are limited natural, cultural, or historic resources present where work will occur. The action does not involve the loss of any significant or valuable natural, cultural, or historic resource. As outlined in Sections 3.3.1.6 and 3.5.3, measures would be employed to avoid and minimize potential effects to resources that could be present in the project area.

5.2.2 CURTAILS THE RANGE OF BENEFICIAL USES

As discussed in Section 4.13, the proposed project represents a beneficial and appropriate use of the environment. The site has been in use as a beach park for many decades. Continued use of the site as a beach park, which is consistent with all applicable plans, will not curtail other uses of the park and will promote its beneficial use.

5.2.3 CONFLICTS WITH ENVIRONMENTAL POLICIES OR LONG-TERM GOALS

As discussed in Chapter 4, the Proposed Action is consistent with all applicable plans, policies, and controls, including Special Management Area goals and objectives, the *O'ahu General Plan*, and the KPSCP. Further, the proposed project is consistent with the State of Hawai'i's long-term environmental policies and goals, as expressed in HRS, Chapter 344 and elsewhere in state law.

5.2.4 SUBSTANTIALLY AFFECTS ECONOMIC/SOCIAL WELFARE OR CULTURAL PRACTICES

The Proposed Action will not have substantial effects on economic welfare, social welfare, or cultural practices (Section 3.3.2). No adverse effects to cultural practices will occur, the park's continued use will benefit the community's economic and social welfare, and the use is consistent with applicable plans, policies, and controls.

5.2.5 SUBSTANTIALLY AFFECTS PUBLIC HEALTH

The Proposed Action will not adversely affect air or water quality, including water sources used for drinking or recreation. Neither will it generate other emissions that will have a significant adverse effect on public health.

5.2.6 INVOLVES ADVERSE SECONDARY IMPACTS

As discussed in Section 3.8, the Proposed Action will not produce substantial secondary impacts; it will not foster population growth, promote economic development, or stress public facilities or services.

5.2.7 SUBSTANTIALLY DEGRADE THE ENVIRONMENTAL QUALITY

The Proposed Action will not have substantial environmental effects. The work will temporarily elevate noise levels and generate limited nuisance airborne dust during construction, but these impacts will be localized, minor, and of limited duration. Adequate measures (Section 2.3.1) will be taken to control the intensity of construction noise and dust.

5.2.8 CUMULATIVE EFFECTS OR COMMITMENT TO A LARGER ACTION

As discussed in Section 3.8, the Proposed Action does not represent a commitment to a larger action and is not intended to facilitate substantial economic or population growth.

5.2.9 SUBSTANTIALLY EFFECTS RARE, THREATENED, OR ENDANGERED SPECIES

As discussed in Section 3.5, no rare, threatened, or endangered species are known to utilize the portion of the site where work will occur, and no activities are contemplated that would pose a threat to rare, threatened, or endangered species, or their habitat. In addition, the Proposed Action would not utilize any resource or habitat needed for the protection of rare, threatened, or endangered species.

5.2.10 ADVERSE EFFECTS ON AIR OR WATER QUALITY OR AMBIENT NOISE LEVELS

Noise levels and airborne emissions will temporarily increase during construction activities. BMPs will be implemented (Section 2.3.1), and any effects will be brief, relatively minor, and restricted to the immediate vicinity of the work area. Once construction is completed, the proposed park improvements will not produce airborne emissions, waterborne pollution, or noise.

5.2.11 ADVERSE EFFECTS ON ENVIRONMENTALLY SENSITIVE AREA

As discussed in Section 3.1, and due to its proximity to the shoreline, the project site is in both the tsunami evacuation zone and extreme tsunami evacuation zone. However, the parcel on which the proposed park improvements are located has been designated as being in the Urban Land Use District by the State of Hawai‘i and placed in the P-2 General Preservation Zoning District by the CCH. These designations indicate that state and local governments consider the site appropriate for use as a public beach park.

The area of the proposed park improvements is not considered to be prone to erosion and it is not modeled to be directly affected by sea level rise and coastal erosion until after sea level rise exceeds 3.2 feet. SLR is not anticipated to reach that level until after the design life of the proposed project has passed.

5.2.12 ADVERSE EFFECTS ON SCENIC VISTAS AND VIEW PLANES

As discussed in Section 3.4, although the proposed park improvements will be visible from certain viewpoints, it will not block or create a substantial new element in scenic vistas identified in county or state plans or studies.

5.2.13 REQUIRES SUBSTANTIAL ENERGY CONSUMPTION OR EMISSIONS

The construction operations that are proposed will require the use of modest amounts of energy and temporary and minor emissions of greenhouse gases. However, once these relatively brief construction operations are complete, the proposed improvements will not use energy at a rate greater than the current facilities do or emit greenhouse gases.

5.1 ANTICIPATED DETERMINATION

In view of the foregoing, the City's draft assessment is that the Proposed Action will not have a significant adverse impact on the environment. Consequently, it is anticipated that DDC will issue a FONSI for the Proposed Action.

6 CONSULTATION AND DISTRIBUTION

6.1 EARLY CONSULTATION

A critical component of the planning effort for the Proposed Action was developing and implementing an early consultation program to inform public agencies and adjacent landowners and obtain their input regarding the project's purpose, scope, potential impacts, and recommended avoidance, minimization, and mitigation measures. Pursuant to HAR, § 11-200.1-18, at the earliest practicable time, the advice and input of DPP, the CCH agency responsible for implementing the County's general plan, other agencies that have jurisdiction over resources with the potential to be affected by the Proposed Action, and the owners of adjacent parcels was sought. Table 1-1 identifies the agencies and individuals that were sent early consultation letters. The complete text of the scoping letter and all responses are provided in Appendix A.

During the early consultation effort the proposed project was confined to building a new pavilion to restore the functions of the former pavilion. After the public scoping meeting discussed below, the scope of the proposed project was expanded to include replacing the comfort stations and other efforts.

6.2 PUBLIC SCOPING MEETING

A public project meeting was held on June 8, 2023, from 10:30 a.m. until noon at Waimānalo District Park Gymnasium. The public was informed of the meeting via press releases, outreach to elected representatives in the area, and a postcard mailed to all valid addresses in zip code 96795. Roughly 50 members of the community attended the meeting. The project team provided a brief project description, answered questions, encouraged people to complete comment forms and questionnaires, and collected completed comment forms and questionnaires. All input received was considered during the preparation of this EA. The comment forms and questionnaires turned into project personnel are provided in Appendix B of this report. The following summarizes the input received and how the City is responding.

Comment 1: Can DPR prioritize the bathrooms and the repair of the craft building over the pavilion? The most urgent need is the bathrooms (comfort stations), they need to be repaired or replaced.

> **Response**: Because the Department of Parks and Recreation (DPR) had already programmed design and construction funding for the pavilion, the design is already underway and the project is scheduled to be bid out in Spring 2024. Based on the feedback received, the Department of Design and Construction (DDC) is seeking a design consultant to replace the comfort stations and repair the craft building. The City proposes to replace the comfort stations with prefabricated, vandalism-resistant structures. The replacement of the two comfort stations and the repair of the craft building at the park is being added to the Environmental Assessment. The Special Management Area permit application will also include the replacement of the two comfort stations and the repair of the craft building.

Comment 2: Can the City retain the pavilion's natural rock wall and dedication to Gabby Pahinui?

Response: The wall, plaque, and dedication will remain.

Comment 3: Can the pavilion materials be selected for a long lifespan? The public is concerned that the roof doesn't leak and therefore skylights should not be included in the design.

Response: The City is considering the options and plans to specify materials that extend the pavilion's life span and make it attractive and inviting to a wide variety of public uses. Skylights will not be included in the project's design.

Comment 4: Consider providing sufficient power in the pavilion for hosting musical events.

Response: The Department of Parks and Recreation (DPR) does not plan to increase power to the pavilion. Those hosting musical events, which occurred rarely in the past, will need to supply power by bringing generators.

Comment 5: Would you be able to put solar panels on the pavilion roof?

Response: The City is considering the cost and technical aspects connected to putting solar panels on the roof.

Comment 6: Will there be a way to enclose the pavilion so that it does not become a home for the houseless?

Response: The Department of Parks and Recreation (DPR) considered enclosing the pavilion with a fence but decided against it because it would be unsightly.

Comment 7: In the future, how would we reserve the pavilion for a party?

Response: To use a City park facility you would need to request a permit and can visit the City and County of Honolulu for how to submit an application. Vendors would need a temporary concession permit to sell food or concessions.

Comment 8: Consider providing a kitchen and food preparation area in the pavilion and/or craft building.

Response: The City does not plan to incorporate kitchen facilities in the pavilion because they would be prone to vandalism and difficult to maintain. The former facilities in the craft building that was recently damaged by fire will be restored but this kitchen will only be available to Department of Parks and Recreation (DPR) staff during DPR programs.

Comment 9: Can there be additional public meetings, preferably in the evening hours.

Response: A public meeting will be held during the Draft Environmental Assessment comment period, which is likely to occur in the first quarter of 2024. The meeting will be held in the evening hours on a weekday.

An in-person and virtual public hearing will be held by the Department of Planning and Permitting (DPP) during consideration of the Special Management Area (SMA) permit. The hearing will occur during work hours on a weekday. Subsequently, the City Council will consider the SMA permit via a resolution.

Comment 10: The Waimānalo community parks should be better funded and the proposed improvements implemented soon.

> **Response**: The Department of Parks and Recreation (DPR) is funded via the City Council's annual budget. The annual budget includes funds for Capital Improvement Projects (CIP). As the budget process begins, DPR representatives inform the City Council of the CIPs that could be funded. At the completion of the budget process, the City Council's budget bill allocates funds to specific CIPs. Once the proposed Waimānalo Beach Park improvements to have been considered through the Environmental Assessment process and awarded a Special Management Area (SMA) permit by the City Council, DPR will seek funding through the City Council's budget process.

Comment 11: What is the budget for the Pavilion?

> **Response**: The cost estimate is $1.2 million. The cost estimate will be in the Environmental Assessment.

6.3 DISTRIBUTION OF THE DEA

The City has provided the Draft EA to the parties listed in Table 6-1 with a request for review and comment.

Table 6-1: DEA Distribution List

Federal Agencies	**City and County of Honolulu**
U.S. Army Corps of Engineers, Honolulu District	Board of Water Supply
U.S. Fish and Wildlife Service, Pacific Islands Field Office	Department of Community Services
State Agencies	Department of Design and Construction
Department of Agriculture	Department of Environmental Services
Department of Accounting and General Services	Department of Facility Services
DBEDT, Office of Planning and Sustainable Development	Department of Parks and Recreation
Department of Education	Department of Planning and Permitting
Department of Hawaiian Home Lands	Department of Transportation Services
Department of Health, Env. Management Division	Honolulu Fire Department
Department of Human Services	Honolulu Police Department
DLNR, Land Division (see note)	**Utilities**
Department of Transportation, Long Range Planning Branch	Hawai‘i Gas
Office of Hawaiian Affairs	Hawaiian Electric Co., Inc.
Elected Officials	Hawaiian Telcom
City Councilmember Esther Kia‘āina	**Libraries and Depositories**
State Representative Lisa Marten	Hawai‘i State Library Documents Center
State Senator Chris Lee	Waimānalo Public and School Library

Note: Continued on next page.

Others	Surrounding Land Owners/Residents
Waimānalo Neighborhood Board	George M Joy
Surrounding Land Owners/Residents	Kennekth K Afong
IHA Holdings 434-13 LLC	Winston N A Kong
Thomas M. De Harne, Andrea M. Peters	Leroy N Enos
Lahela Kamalani-Moe	Ellen L Aiona, Dolan Dela Pena
Lindsey/Jessica Dymond Fam Tr	Manuel Ramos, Jr.
Amy V. Condon	Peter K P Albino, Jr.
Renee M A Anderson Tr	Miu Lang P M Vaovasa
Raymond W Lum Tr	Wilson K Ho
Frederick M Mattson, II TR, Erin M H Mattson, Gay Ann K O Mattson	Hubert J Kanaha
Chino's LTD, Attn: Raymond W Lum	Liane N Ching
Chino's LTD, Seven-Eleven (Hawai'i) Inc.	Henry C Kassebeer, Jr.
Sharon M Kanahele	John C K Kong Kee
Gregory T. Martin	Rodney K Choy Foo, Jr.
Ikaika Rogerson	Charles K Hekekia, Jr.
Joetta Mae N Velasco, Quinn I Velasco	Susan M Pelekai
Matthew M Ayers	Leilani Apana, Carolyn Apana
Beverly K Akiona	Le Vaughn O Kaopio
Aaron K Kane	Kathleen K Joseph
Noralei A Stant	Juliette Kassebeer
Steven K Keawe	Michael O Kahiapo
William W Kekauoha, Jr.	Wayne P Achong, Victoria K DeSilva
Sophie Kauhi	Bobby T Hare
Claude H Kane	Helen K H Kidder, Kenneth Kidder
Bert O Dement	Robbie I Richardson-Ortiz
Herman K Widemann, Noreen Widemann	Nalo Ohana LLC
Robert S Akau, Jr.	Elaine Kiko
Myrna T Colbert	Sharon-Lee M Apo
Lynnette L Kanoa	Herbert Kaniaupio, III, c/o Gina Kaniaupio Poa, Carter L K Spencer
Mary J Hong	Lani Ann Kauanoe
Michelle L Spencer	Leighton S Ohera
Daisey P Moses, Dawn K Apo	Russ K Kauahikaua
Manuel Kupahu	Milton M Akiona, Jr.
Job M B Harris	Elizabeth L Makua, Sam Makua
Tor H Kamai Rodrigues	Kahaunani Mohoe-Thoene
Haunani K M Bush	Aaron M I P Akau, Annie A M P Akau
Ryan L Kauahikaua	Godfreida K Muller
Joseph W L Kaakua	Charlotte H Marquez c/o Honolulu Habitat for Humanity

Note: Department of Land and Natural Resources (DLNR) Land Division routes submitted documents to other DLNR divisions, including Division of Aquatic Resources, Engineering Division, Division of Forestry and Wildlife, Office of Conservation and Coastal Lands, and Commission on Water Resources Management

6.4 PLANNED PUBLIC OUTREACH

A public meeting will be held during the Draft EA review period to collect timely input concerning the Proposed Action. The meeting will occur on Wednesday, February 21, 2024, from 6:30 p.m. to 8:30 p.m. at Waimānalo District Park Gymnasium. Substantive written comments received during the Draft EA review period will be addressed in the Final EA.

The City will also present project information at a Waimānalo Neighborhood Board No. 32 meeting during the Draft EA review period, on February 12, 2024. The Waimānalo Neighborhood Board meetings begin at 7:00 p.m. and can be attended in person at Waimānalo Public Library or via Webex (visit https://www.honolulu.gov/cms-nco-menu/site-nco-sitearticles/865-site-nco-agenda-minutes-list-cat/20543-neighborhood-boards-agenda-minutes-listing.html?nb=32&year=2024 for more information). In addition, it is anticipated that the City will be invited to present project information at a Waimānalo Neighborhood Board No 32 Parks and Recreation Committee meeting. The committee typically meets the third Monday of the month at 7:00 p.m. at Waimānalo Public Library or via Zoom (visit the link above for more information).

After the EA process is complete, the City will seek an SMA Major permit (Section 1.5). As part of the SMA Major permit process the following opportunities for public input are anticipated:

- A public hearing will be organized, announced, and conducted by the Department of Planning and Permitting. This hearing will occur roughly three months after the completion of the EA process.
- Hearings associated with the City Council's consideration of a resolution to approve the SMA Major permit. Assuming the City Council takes up the item, this will entail a Zoning Committee hearing followed by a full Council hearing.

7 REFERENCES

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Appendix A. Early Consultation Letters and Responses

PLANNING SOLUTIONS

January 27, 2023

Subject: **Scoping Request**
Proposed Waimānalo Beach Park Pavilion
41-741 Kalaniana‘ole Highway, Waimānalo, O‘ahu, Hawai‘i 96795
TMK (1) 4-1-003:040

Dear Madam or Sir,

Planning Solutions, Inc. (PSI) is assisting the City and County of Honolulu Department of Design and Construction (DDC) to prepare a Hawai‘i Revised Statues (HRS) Chapter 343 Environmental Assessment (EA) for the proposed new pavilion at Waimānalo Beach Park where a pavilion previously existed (Figure 1). The former pavilion, built in 1960, was dedicated in memory of Gabby “Pop” Pahinui. Over time, it became dilapidated and was removed in 2019 due to safety concerns. The proposed pavilion would be similar to the former pavilion. It would be in the same place (roughly 170 feet from the shoreline, Figure 2), have a similar size and height, and use the existing foundation and concrete slab. Modern materials would be used to improve the new pavilion’s longevity and functionality.

The subject parcel is in the State of Hawai‘i’s Urban Land Use District, the City and County of Honolulu’s P-2 Preservation District, and the Special Management Area (SMA). The proposal requires a SMA Major permit because no SMA permit had been issued for the former pavilion (it was built prior to the SMA rules), it is considered “development,” and its value will exceed $500,000. The first step in the SMA Major permitting process is the preparation of an EA.

To better address the concerns of interested agencies, organizations, and individuals in the EA, PSI has prepared this information and the attached figures for your review. We are seeking input you may have regarding the proposed project’s nature, scope, potential alternatives, or any permits or approvals that may be required. We are interested in hearing about any resources, projects, or plans in the area that could be affected by the proposed project and any information you feel should be discussed and evaluated in the EA.

We would appreciate your response by March 3, 2023. Please respond either by regular mail to Planning Solutions, Inc., 711 Kapiolani Boulevard, Suite 950, Honolulu, HI 96813 or by email at julia@psi-hi.com. If you have any questions or concerns, please contact me at (808) 550-4559.

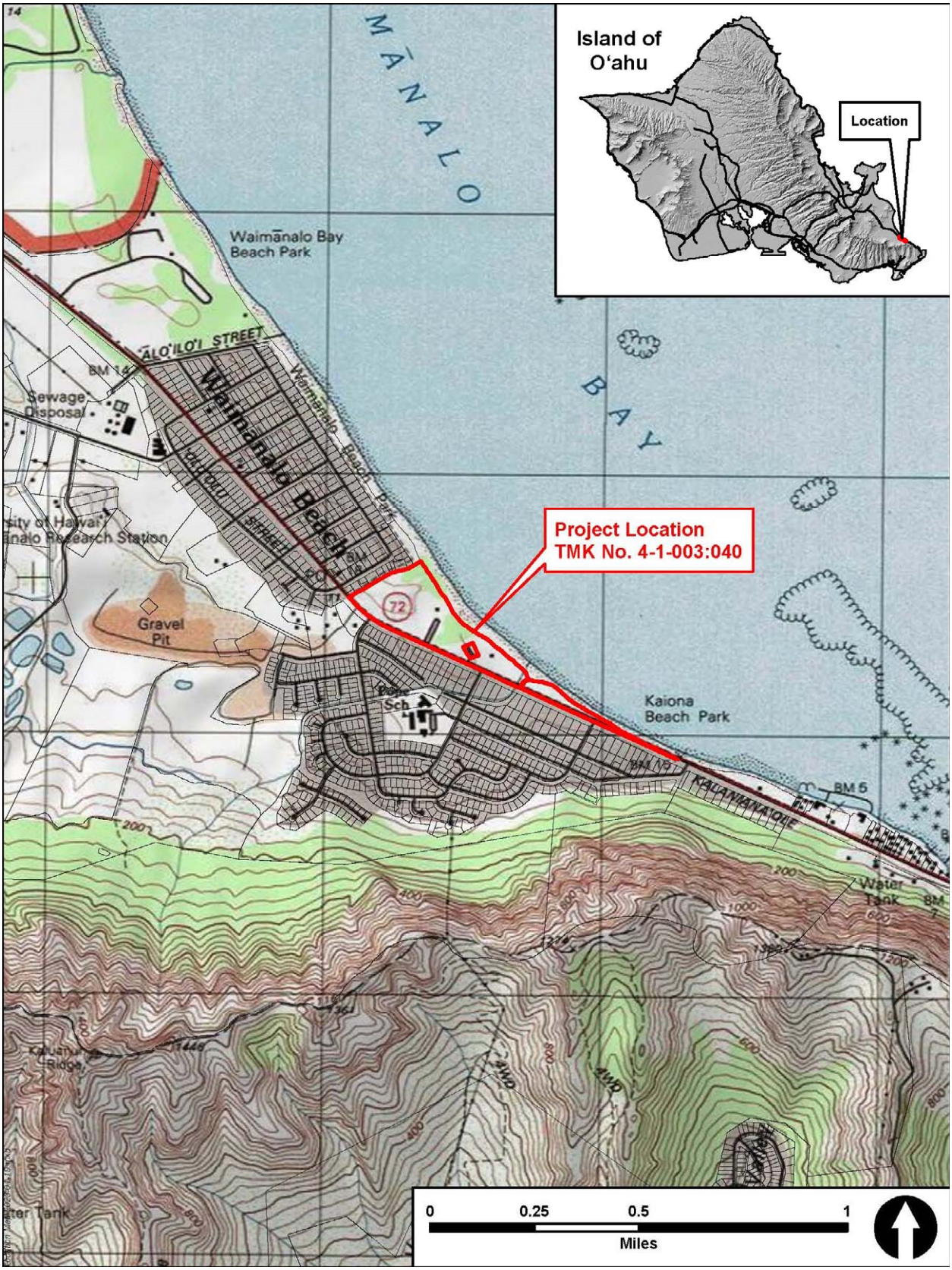
Sincerely,

Jim Hayes
Planner

Attachments:
Figure 1: Waimānalo Beach Park Location Map
Figure 2: Former and Proposed Pavilion Location, Waimānalo Beach Park

Pacific Park Plaza, Suite 950 • 711 Kapi‘olani Boulevard • Honolulu, Hawai‘i 96813-5213
Phone: 808-550-4483 • www.psi-hi.com

Figure 1: Waimānalo Beach Park Location Map



Source: Planning Solutions, Inc., USGS map, and City and County of Honolulu GIS shapefiles.

Figure 2: Former and Proposed Pavilion Location, Waimānalo Beach Park

Source: Planning Solutions, Inc., Google Earth (photograph dated August 2022), and County of Honolulu TMK maps.

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu.gov/dpp

RICK BLANGIARDI
MAYOR

DAWN TAKEUCHI APUNA
DIRECTOR

JIRO A. SUMADA
DEPUTY DIRECTOR

March 1, 2023 2023/ ELOG-205 (LM)

Mr. Jim Hayes
Planning Solutions
711 Kapiolani Boulevard, Suite 950
Honolulu, Hawaii 96813

Dear Mr. Hayes:

SUBJECT: Request for Pre-Consultation Comments
Environmental Assessment for Waimanalo Beach Park Pavilion
41-741 Kalanianaole Highway - Waimanalo
Tax Map Key 4-1-003: 040

This is in response to your letter, received January 30, 2023, requesting comments on the scope and content to be addressed in a Draft Environmental Assessment (DEA), as required under Chapter 343, Hawaii Revised Statutes (HRS), for a new pavilion at Waimanalo Beach Park, where a pavilion previously existed, roughly 170 feet from the shoreline. The proposed pavilion will have a similar size and height as the previous pavilion, and will utilize the existing foundation and concrete slab.

Please note that Bills 41 and 42, relating to Shoreline Setbacks and Special Management Areas (SMA), have recently been adopted by Council, and are anticipated to be signed into Ordinance by the Mayor. The following items should be addressed in the DEA:

1. Long-term Planning Policies and Objectives: The DEA should address the proposed Project's consistency with the relevant policies of the General Plan and the Koolau Poko Sustainable Communities Plan.

2. Land Use Ordinance (LUO; Chapter 21, Revised Ordinances of Honolulu [ROH]): Based on a review of our records, the Project site consists of a 29.107-acre shoreline zoning lot located in the P-2 General Preservation District. Therefore, proposed development activities must comply with the development standards

applicable to the P-2 General Preservation District. Project compliance with these standards should be presented and evaluated in the DEA. The LUO is available on our website at:

https://www.honolulu.gov/rep/site/dpp/dpp_docs/land-use-ordinance.pdf

If the Project is not able to comply with these standards (e.g., height, building area), a zoning waiver may be sought as a public use and structure, pursuant to LUO Section 21-2.130.

3. Onsite Structures: The DEA should describe all existing structures on the site, including the plaque memorializing Gabby Pahinui. If any existing structures are proposed to remain in place, the DEA should describe what and where they are located, whether they were lawfully established (permitted), and whether they comply with the relevant standards. Such structures should be included in the DEA's analysis of compliance with the applicable development standards in the LUO. The DEA should include a site plan and conceptual plan of the pavilion.

4. SMA: On September 15, 2020, Governor Ige signed Act 16 (2020) into law. The stated purpose of Act 16 (2020) is to strengthen the State's coastal zone management policy by amending Chapter 205A, HRS, to protect state beaches, and to reduce residential exposure to coastal hazards.

   The DEA should include in its analysis all of the required components for an SMA Use Permit under both Chapter 205A, HRS, as revised, and Chapter 25, ROH. The revised text of Chapter 205A, HRS, as amended by Act 16 (2020) is available online at:
   https://www.capitol.hawaii.gov/session2020/bills/SB2060_HD2_.htm

   Chapter 25, ROH, is available online at:
   https://hnldoc.ehawaii.gov/hnldoc/document-download?id=16460

   As noted previously, Bill 42 was recently adopted by the City Council. We encourage you to familiarize yourself with this Bill, and consider providing the above analysis in a way that reflects the updated Chapter 25, ROH. The above link leads to Bill 42, CD2.

5. Shoreline Setback: All activities, including development, must be located outside of the shoreline setback area, which currently extends 40 feet mauka of the Certified Shoreline for most properties. After July 1, 2024, the shoreline setback line will be established at the following distances mauka from the certified shoreline:

1. Sixty feet plus 70 times the annual coastal erosion rate, up to a maximum setback of 130 feet, on zoning lots within all development plan and sustainable communities plan areas except the Primary Urban Center Development Plan (PUCDP) area; provided that any property owner who believes the annual erosion rate applicable to a specific zoning lot does not accurately represent the actual erosion rate for that zoning lot may submit an application to the Director requesting approval of an alternative coastal erosion rate methodology and data for the zoning lot in accordance with the procedures and informational requirements set forth in the department's rules implementing this chapter.

2. Sixty feet on zoning lots within the PUCDP) area.

3. Sixty feet on zoning lots where historical erosion data has not been collected for the Hawaii shoreline study, or its successor, where the historical erosion data show coastal accretion, or where the historical erosion data show an annual coastal erosion rate of zero.

This setback distance from the shoreline must be confirmed on a shoreline survey certified by the State of Hawaii, and must also be reflected in the plans submitted for the SMA Use Permit to confirm compliance with the Shoreline Setback Ordinance (now Chapter 26, ROH). A draft shoreline survey should be included and evaluated in the DEA. A *certified* shoreline survey (CSS) should be included in the Final EA.

Alternatively, if the Applicant seeks to waive the requirement for a certified shoreline survey and locate all development more than 55 feet from an uncertified (presumed) shoreline, the DEA should include a shoreline survey and plans that identify and label the proposed distance from the presumed shoreline. Under this approach, the Applicant must provide evidence documenting the location of the presumed shoreline. Such information may include, but is not limited to, a previously CSS, erosion and/or accretion information, historic versus current photographs, and physical or geographic markers such as survey pins or trees that document the level of change in the shoreline since the most recent CSS. Please note that a waiver of the requirement for a CSS is subject to the discretion of the Director of the Department of Planning and Permitting (DPP).

Please be aware that the above information about shoreline certification and waiver of the requirement to certify the shoreline is expected to be updated before the implementation of the new shoreline setback regulations from Bill 41. For purposes of the DEA, you may assume that a certification will not be required if all activities and developments are fifteen feet beyond the shoreline setback line measured from an uncertified shoreline. Please be aware of this process to

update the rules, and incorporate updates as necessary. Either way, your DEA should disclose the shoreline establishment process you hope to follow.

Chapter 26, ROH, as amended by Bill 41, is available online at: https://hnldoc.ehawaii.gov/hnldoc/document-download?id=16456

The DPP Rules Relating to Shoreline Setbacks and the Special Management Area are available online at: https://www.honolulu.gov/rep/site/dpp/dpp_docs/rules-shoreline-setbacks-and-the-SMA.pdf

6. Flood Zone: The DEA should identify the subject property's Flood Zone, as mapped by the Federal Emergency Management Agency, and evaluate the proposed Project's compliance with the City's Flood Hazard Areas Ordinance (Chapter 21A, ROH), which is available online at: https://www.honolulu.gov/rep/site/ocs/roh/ROH_Chapter_21A_.pdf

7. Coastal Hazards: The Project site, as a shoreline lot, is susceptible to Sea Level Rise (SLR), tsunamis, and storm surge. Mayor's Directive 18-2, issued on July 16, 2018, requires all City departments and agencies to use the Hawaii *SLR Vulnerability and Adaptation Report*, the *SLR Guidance* and the *Climate Change Brief* in planning decisions. As a result, proposed development activities within the SMA must be evaluated not only for potential impacts to sensitive SMA resources, but also for current and future susceptibility to coastal hazards such as flooding, SLR, wave action, tsunami, and storm surge.

   The amendments to Chapter 205A, HRS, under Act 16 (2020), further reiterate the need to evaluate potential impacts related to coastal hazards and SLR. As such, the following items need to be evaluated in a site-specific coastal hazards analysis and evaluated in both the DEA and SMA Use Permit application prepared for the Project. This analysis should evaluate the site's existing topographic, geologic, and shoreline environment, and show whether and how a proposed development can safely be located outside of the 3.2-foot SLR-Exposure Area and avoid impacts associated with other coastal hazards. This study should include analysis of potential impacts and mitigation measures associated with implementation of the Project related to, but not limited to, the following.

   - SLR - Potential impacts relating to SLR at the subject property, based on review of the State's SLR-Exposure Area Mapping Tool, of 3.2 feet of SLR by mid-century.

- Storm Surge - Potential impacts and hurricane storm surge inundation levels at the subject property during Category 1 through 4 hurricane events, based on review of the National Oceanic and Atmospheric Administration's (NOAA) National Hurricane Storm Surge Hazard Maps.

- Potential cumulative impacts of coastal hazards and property inundation should SLR exacerbate existing flooding, coastal erosion, wave-action, or other coastal hazards that may occur at the subject property.

The DEA should also explore project alternatives, site design (siting and configuring the proposed development as far from the shoreline as possible), project design features (elevated structures, alternative foundations, etc.), Best Management Practices, and appropriate mitigation measures to reduce potential impacts related to coastal hazards to the extent possible. Relevant sources of information are available online at the following links:

- Mayor's Directive No. 18-2 (2018) regarding climate change and SLR: www.honolulu.gov/rep/site/dpptod/climate_docs/MAYORS_DIRECTIVE_18-2.pdf

- SLR Vulnerability and Adaptation Report: http://climate.hawaii.gov/wp-content/uploads/2019/02/SLR-Report_Dec2017-with-updated-disclaimer.pdf

- State SLR-Exposure Area Mapping Tool: www.pacioos.hawaii.edu/shoreline/slr-hawaii/

- Guidance for Using the SLR-Exposure Area: https://climate.hawaii.gov/wp-content/uploads/2020/12/Guidance-for-Using-the-Sea-Level-Rise-Exposure-Area.pdf

- Honolulu Office of Climate Change, Sustainability and Resiliency Climate Ready Oahu Web Explorer: www.resilientoahu.org/water

- NOAA Storm Surge Mapping tool: https://www.nhc.noaa.gov/nationalsurge/

8. Wetlands and Sensitive Species:

The DEA should identify the presence or potential presence of any protected wetlands, sensitive habitat, flora species, and fauna species. The DPP recommends reaching out the U.S. Fish and Wildlife Service (USFWS) to obtain

a list of species that are known to occur, or may potentially occur, in the Project vicinity. Known, mapped wetlands can be viewed on the USFWS National Wetlands Inventory *Wetlands Mapper*. The DEA must evaluate potential impacts to each identified sensitive species, and provide standard agency-required mitigation measures as well as any applicable site-specific mitigation measures to avoid or minimize potential impacts to each identified species, critical habitat and habitat applicable to the site. The Wetlands Mapper is available online at: https://www.fws.gov/wetlands/data/mapper.html.

9. Please be advised that in December 2020, the State Historic Preservation Division (SHPD) began using a new online system to better track consultation requests:
https://shpd.hawaii.gov/hicris/landing.

Because the new tracking system requires agency-to-agency requests, the DPP has created a generic request letter that consultants/property owners may use for projects that will eventually require DPP approval. This letter may be completed by a consultant or property owner and submitted to SHPD directly via their online system to initiate requests before permit applications are submitted to the DPP. The letter includes a general DPP contact number and email, as well as blank fields where the property owner or their consultant can enter their contact information. The generic request letter is available online at:
https://www.honolulu.gov/rep/site/dpp/dpp_docs/SHPD-Comment-Request.pdf

Finally, please contact the appropriate Neighborhood Board and any relevant neighborhood associations or commissions to request an opportunity to present the Project proposal at the next available Neighborhood Board meeting and/or association meeting(s).

Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Laura Mo, of our staff, at (808) 768-8025, or via email at laura.mo@honolulu.gov.

Very truly yours,

for Dawn Takeuchi Apuna
Director

JOSH GREEN, M.D.
GOVERNOR
STATE OF HAWAII
Ke Kia'āina o ka Moku'āina 'o Hawai'i

SYLVIA J. LUKE
LT. GOVERNOR
STATE OF HAWAII
Ka Hope Kia'āina o ka Moku'āina 'o Hawai'i

IKAIKA ANDERSON
CHAIRMAN DESIGNATE, HHC
Ka Luna Ho'okele

KATIE L. DUCATT
DEPUTY DESIGNATE TO THE CHAIRMAN
Ka Hope Luna Ho'okele

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
Ka 'Oihana 'Āina Ho'opulapula Hawai'i
P. O. BOX 1879
HONOLULU, HAWAII 96805

February 27, 2023

In reply refer to: PO-23-024

Sent by electronic mail: julia@psi-hi.com

Mr. Jim Hayes
Planning Solutions, Inc.
Pacific Park Plaza, Suite 950
711 Kapi'olani Boulevard
Honolulu, Hawai'i 96813-5213

Subject: Scoping Request – Proposed Waimānalo Beach Park Pavilion
41-741 Kalaniana'ole Highway, Waimānalo, O'ahu, Hawai'i 96795
TMK (1) 4-1-003:040

Dear Mr. Hayes,

The Department of Hawaiian Home Lands (DHHL) acknowledges receiving the Scoping Request on the above-cited project. DHHL has approximately 1,914 acres of land in Waimānalo, including the subject parcel. **Therefore, as the landowner, DHHL would serve as the approving agency of the project's Environmental Assessment and the final approval is subject to the Hawaiian Homes Commission approval.**

Our Department's current Land Use Designation for the parcel is "Community Use," and the proposed beach park pavilion would be an appropriate use. It is anticipated the pavilion will serve as a gathering place that will help to promote healthy communities for keiki, adults and kūpuna.

It is important that DHHL's beneficiaries are kept informed and updated of this project. Please continue to engage the Department, homestead associations, and Waimānalo beneficiaries in the preparation of the Environmental Assessment and community outreach efforts.

Mahalo for the opportunity to provide comments. If you have any questions, please call Pearlyn Fukuba, at phone (808) 620-9279 or email pearlyn.l.fukuba@hawaii.gov.

Aloha,

Ikaika Anderson, Chairman Designate
Hawaiian Homes Commission

c: DHHL Land Development Division
DHHL Land Management Division

STATE OF HAWAI'I
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

JOSH GREEN, M.D.
GOVERNOR

SCOTT J. GLENN
DIRECTOR

235 South Beretania Street, 6th Floor, Honolulu, Hawai'i 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawai'i 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/

Coastal Zone Management Program

Environmental Review Program

Land Use Commission

Land Use Division

Special Plans Branch

State Transit-Oriented Development

Statewide Geographic Information System

Statewide Sustainability Branch

DTS 202301301057NA

March 2, 2023

Mr. Jim Hayes
Planning Solutions, Inc.
Pacific Park Plaza, Suite 950
711 Kapiolani Boulevard
Honolulu, HI 96813

Dear Mr. Hayes:

Subject: Scoping Request for Proposed Waimanalo Beach Park Pavilion at 41-741 Kalanianaole Highway, Waimanalo, Oahu, Hawaii; Tax Map Key: (1) 4-1-003: 040

The Office of Planning and Sustainable Development (OPSD) is in receipt of your scoping review request, dated January 27, 2023, on the preparation of an Environmental Assessment (EA), for the proposed new pavilion at Waimanalo Beach Park, Oahu, Hawaii, Oahu.

According to the request, the proposed pavilion would be similar to the former pavilion, which was removed in 2019 after dilapidation. The new pavilion would be in the same location, approximately 170 feet from the shoreline, have a similar size and height, and use the existing foundation and concrete slab.

The subject parcel is in the State Urban Land Use District, and the City and County of Honolulu's P-2 Preservation District. The proposed project is located within the Special Management Area (SMA), and a SMA Use Permit is required as the valuation of the proposed development will exceed the cost threshold $500,000 set forth in Hawaii Revised Statutes (HRS) Chapter 205A.

The OPSD has reviewed the subject request, and has the following comments to offer:

1. If an EA is required for the proposed pavilion, the EA shall discuss all triggers of the subject EA set forth in HRS Chapter 343 and City and County of Honolulu SMA Ordinance.

2. The Hawaii Coastal Zone Management (CZM) Law, HRS Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. The subject EA should include an assessment with mitigation measures, if needed, as to how the proposed residential development conforms to each of the CZM objectives and supporting policies set forth in HRS Chapter 205A-2, as amended.

3. The OPSD recommends that the EA specifically discuss the compliance with the requirements of SMA use under Revised Ordinances of Honolulu (ROH) Chapter 25, and shoreline setbacks under ROH Chapter 23 for the proposed residential development by consulting with the Department of Planning and Permitting, City and County of Honolulu.

4. To assess potential impacts of sea level rise on the property area, the OPSD suggests the EA refer to the findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Report 2017, accepted by the Hawaii Climate Change Mitigation and Adaptation Commission. The Report, and Hawaii Sea Level Rise Viewer at https://www.pacioos.hawaii.edu/shoreline/slr-hawaii/ particularly identifies a 3.2-foot sea level rise exposure area across the main Hawaiian Islands which may occur in the mid to latter half of the 21st century. The EA should provide a map of the 3.2-foot sea level rise exposure area in relation to the property area, and discuss site-specific mitigation measures to respond to potential impacts of 3.2-foot sea level rise, storm surges, and shoreline erosion on the proposed structure.

5. The OPSD has developed guidance documents on stormwater runoff strategies, which offer techniques to prevent land-based pollutants and sediment from potentially affecting water resources. The OPSD recommends that the subject EA consider the following stormwater assessment guidance to mitigate stormwater runoff impacts:

   Stormwater Impact Assessments can be used to identify and analyze information on hydrology, sensitivity of coastal and riparian resources, and management measures to control runoff, as well as consider secondary and cumulative impacts to the area. https://files.hawaii.gov/dbedt/op/czm/initiative/stomwater_imapct/final_stormwater_impact_assessments_guidance.pdf

If you have any questions regarding this comment letter, please contact Shichao Li of our office at (808) 587-2841 or by email at shichao.li@hawaii.gov.

Sincerely,

for Scott J. Glenn
Director

From: Leighton Ohera
To: Julia Ham Tashima
Subject: Proposed Waimanalo Beach Park Pavillion.
Date: Wednesday, February 1, 2023 8:00:41 AM

Aloha, I hafe to say I am pleased that our Waimanalo community is finally getting our beloved Pavillion rebuild for the next generation an park users. I was wondering if the city was ever going to get around to it. I have lived in Waimanalo all my life an played there as a child an I'm sure it will mean alot to Waimanalo residents. I have no major concerns. Mahalo for taking on the project an I definitely support your efforts on this matter.
Leighton ohera

Julia Ham Tashima

From: Lei <chinosxerox@gmail.com>
Sent: Wednesday, February 1, 2023 3:24 PM
To: Julia Ham Tashima
Subject: Waimanalo Beach Park Pavilion

Dear Julia,
The previous pavilion had homeless living in it and all I ask that homeless not be able to camp in the pavilion. It will not inviting or safe for children and outside visitors to use the pavilion. Make it so the homeless are not able to sleep or camp in the pavilion.

Thank you,
Chino's Ltd

Sent from Mail for Windows

From: Ihilani Richardson-Ortiz
To: Julia Ham Tashima
Subject: Scoping Request - Proposed Waimānalo Beach Park Pavilion
Date: Tuesday, February 21, 2023 10:40:07 PM

Aloha mai!

Thank you for reaching out to residents of Waimānalo regarding the Beach Park Pavilion. Unfortunately, I have no strong position on the matter and defer to my fellow residents but am happy that it will be rebuilt and in the same location where the former once stood.

Thank you again,
Robbie Richardson-Ortiz

PLANNING SOLUTIONS

April 27, 2023

Subject: **Scoping Response**
Proposed Waimānalo Beach Park Pavilion
41-741 Kalaniana‘ole Highway, Waimānalo, O‘ahu, Hawai‘i 96795
TMK (1) 4-1-003:040

Dear Scoping Participant:

On behalf of the City and County of Honolulu Department of Design and Construction (DDC), Planning Solutions, Inc. thanks you for your participation in the scoping process for an Environmental Assessment (EA) for the above-referenced project. With this letter we acknowledge that your input was received. We appreciate the time you spent reviewing our letter and preparing your response. The content of the forthcoming Draft EA will incorporate the relevant information received and address the substantive issues raised during the scoping process.

A copy of the Draft EA will be provided to you when it becomes available. In the meantime, if you have any questions or concerns regarding the subject project, please contact me at (808) 550-4559 or via email at jim@psi-hi.com.

Mahalo,

Jim Hayes
Planner

Pacific Park Plaza, Suite 950 • 711 Kapi‘olani Boulevard • Honolulu, Hawai‘i 96813-5213
Phone: 808-550-4483 • www.psi-hi.com

PLANNING SOLUTIONS

April 27, 2023

Mr. Kali Watson, Chairman
Attention: Pearlyn Fukuba (pearlyn.l.fukuba@hawaii.gov)
Department of Hawaiian Home Lands
State of Hawai‘i
P.O. Box 1879
Honolulu, Hawai‘i 96805

Subject: **Ref. No. PO-23-024**
Environmental Assessment Lead Agency
Proposed Waimānalo Beach Park Pavilion
41-741 Kalaniana‘ole Highway, Waimānalo, O‘ahu, Hawai‘i 96795
TMK (1) 4-1-003:040

Dear Chairman Watson,

Planning Solutions, Inc. (PSI) is assisting the City and County of Honolulu Department of Design and Construction (DDC) to prepare a Hawai‘i Revised Statues (HRS) Chapter 343 Environmental Assessment (EA) for a proposed new pavilion at Waimānalo Beach Park where a pavilion previously existed. The former pavilion, built in 1960, was dedicated in memory of Gabby “Pop” Pahinui. Over time, it became dilapidated and was removed in 2019 due to safety concerns. The proposed pavilion would be like the former pavilion. It would be in the same place, have a similar size and height, and use the existing foundation and concrete slab. Modern materials would be used to improve the new pavilion’s longevity and functionality.

On January 27, 2023, PSI sent a letter to the Department of Hawaiian Home Lands (DHHL) seeking input on the proposed project. A response dated February 27, 2023, was received (Ref. No. PO-23-024). That letter suggested that DHHL would serve as the approving agency for the EA since DHHL owns the land. The letter also indicated that: (a) the proposed project was an appropriate use of the land, (b) the Hawaiian Homes Commission will have to provide an approval, and (c) DHHL and its beneficiaries should be engaged during the planning and permitting process.

DDC appreciates DHHL’s willingness to serve as the approving agency; however, that would be a departure from how other beach park projects have been handled. DDC notes that License Agreement No. 547 (License) between DHHL and the City and County of Honolulu (CCH) provides for CCH’s maintenance and operation of the beach park. However, the License does not include the northwestern portion of the park, including the area where the pavilion is proposed. Perhaps that is why DHHL is proposing that this project be handled differently.

DDC proposes the environmental review process proceed with DDC as the proposing/determining agency for the EA and that we indicate in the EA that Hawaiian Homes

Pacific Park Plaza, Suite 950 • 711 Kapi‘olani Boulevard • Honolulu, Hawai‘i 96813-5213
Phone: 808-550-4483 • www.psi-hi.com

Commission approval of the project will be required. We suggest this arrangement because it would ease the burden on DHHL and:

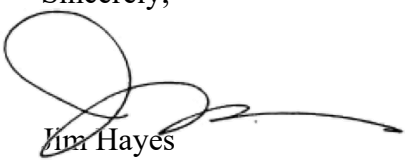
- CCH is operating and maintaining the pavilion area similar to other portions of the beach park, even though the northwestern portion is not subject to the License for some reason.
- CCH will fund the pavilion project and select/manage the contractor if the necessary approvals are obtained.
- The project area is in the Special Management Area (SMA) and requires a SMA Major permit, which is managed by CCH's Department of Planning and Permitting (DPP) and issued by the Honolulu City Council.

DDC recognizes that the Hawaiian Homes Commission approval is a discretionary approval, similar to the SMA Major permit. We suggest that DDC seek the Commission's approval after the Final EA has been completed but prior to the submittal of the SMA Major permit application. That would allow the Commission to confirm comments it or its staff had on the Draft EA had been adequately addressed prior to its approval and prior to signing the SMA Major permit application as the landowner.

Regarding outreach to DHHL's beneficiaries, DDC sent the scoping letter you received to all residences bordering the park, including those across Kamehameha Highway. We will continue to share project documents with the community. In addition, DDC will be holding a public meeting in June 2023 at Waimānalo District Park gymnasium. We will send a meeting announcement to all valid addresses in the Waimānalo zip code (96795) and make additional efforts to inform the community.

We would appreciate your consideration of our suggested planning and permitting process. Please respond by May 30, 2023, indicating whether our proposal is acceptable. Please respond either by regular mail to Planning Solutions, Inc., 711 Kapiolani Boulevard, Suite 950, Honolulu, HI 96813 or by email to jim@psi-hi.com. If you have any questions or concerns, please contact me at (808) 550-4559.

Sincerely,



Jim Hayes
Planner

JOSH GREEN, M.D.
GOVERNOR
STATE OF HAWAII
Ke Kia'āina o ka Moku'āina 'o Hawai'i

SYLVIA J. LUKE
LT. GOVERNOR
STATE OF HAWAII
Ka Hope Kia'āina o ka Moku'āina 'o Hawai'i

KALI WATSON
CHAIRMAN, HHC
Ka Luna Ho'okele

KATIE L. DUCATT
DEPUTY TO THE CHAIRMAN
Ka Hope Luna Ho'okele

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
Ka 'Oihana 'Āina Ho'opulapula Hawai'i

P. O. BOX 1879
HONOLULU, HAWAII 96805

June 27, 2023

In reply refer to: PO-23-024

Sent by electronic mail: jim@psi-hi.com

Mr. Jim Hayes
Planning Solutions, Inc.
Pacific Park Plaza, Suite 750
711 Kapi'olani Boulevard
Honolulu, Hawai'i 96813-5213

Subject: Environmental Assessment Lead Agency
Proposed Waimānalo Beach Park Pavilion;
41-741 Kalaniana'ole Highway, Waimānalo, O'ahu, Hawai'i 96795
TMK (1) 4-1-033:040

Dear Mr. Hayes,

The Department of Hawaiian Home Lands (DHHL) acknowledges receiving your April 27, 2023 response to our comment letter on the above-cited project. We have conducted further research and it appears that Governor's Executive Order 437, dated October 17, 1930, set aside 67.07 acres to the Board of Supervisors, City and County of Honolulu, as the Waimānalo Beach Park. Therefore, we concur with your plans for the City and County of Honolulu, Department of Design and Construction, to serve as the proposing/determining agency for the Environmental Assessment.

We appreciate your efforts to engage and inform our beneficiaries and ask that you continue to engage the Department, homestead associations and Waimānalo beneficiaries in your community outreach efforts.

Mahalo for the opportunity to provide input on this project. If you have any questions, please call Pearlyn Fukuba, at (808) 620-9279 or email pearlyn.l.fukuba@hawaii.gov.

Aloha,

Kali Watson

Kali Watson, Chairman
Hawaiian Homes Commission

c: DHHL Land Development Division
DHHL Land Management Division

Appendix B. Public Scoping Meeting Comment Forms and Questionnaires

PUBLIC INPUT FORM
Waimānalo Beach Park Pavilion Project

The City and County of Honolulu encourages all interested individuals and organizations to provide input on the scope of the environmental review for the subject effort, in particular alternatives to be considered, topics to be covered, and the presence of resources in the area that should be considered. Your input and suggestions will help us prepare a comprehensive Environmental Assessment (EA) that considers the community's ideas and their concerns. Space is provided below to write your comment. Please hand in this form during this meeting, or, if you prefer, submit your input before June 30, 2023, via one of the options listed below.

Input: The design is important the skylight is not really good in the past. Simple is the best. I am against skylights. The material used should be hurricane proof. The arts & craft rooms should be rebuilt again to include a new kitchen with a certified kitchen. The bathroom should be replaced to a more current & easily repair. The restraint to be kept to a certain specs because it to maintain cultural design should be removed. The material has to be solid & of strongest quality. Bathroom seems a priority The use of this facility should be able to do Gabby Festivals & other events. Electrical power is of concern.

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Mabel Ann Kelihoomalu **Address:** 41-1378 Kuhimana St.

Phone or Email: mabelannspencer@gmail.com

Organization: Waimanalo Neighborhood Board

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

PUBLIC INPUT FORM
Waimānalo Beach Park Pavilion Project

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Input:

Pahinui Memorial
Accessible power for live music events
Phases - Bathrooms, first? no?
Amendments to parking situation (add more)
Start Date?
Finish Date?
Budget?

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: KAWIKA KAHIAPO
Address: BOX 322 Waimanalo
Phone or Email: 808-429-4884
Organization: kahiapo60@gmail.com

Submittal options:
1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

PUBLIC INPUT FORM
Waimānalo Beach Park Pavilion Project

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Input: I realize the meeting started off w/ the construction of the new Pavilion but the attention should be the bathrooms.
They are an embarrassement to the ~~building~~ community.
Bathrooms should be a Priority before the pavilion.

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Linda K Decoite Artis **Address:** 41-701 Kumuhau St.
Phone or Email: 808 368-2464 Waimanalo HI 96795
Organization: Resident

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

PUBLIC INPUT FORM
Waimānalo Beach Park Pavilion Project

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Input: Use more natural materials. Make sure it matches the environment.
Want to be consulted w/ re-dedication of pavilion to Gabby Pahinui.
Keep design simple. Get the restrooms done sooner. Should be part of the pavilion re-build

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Kathleen M. Pahinui **Address:** 67-237 Kaiji St
Phone or Email: pahinuik0010hawaii.rr.com Waialua HI 96791
Organization: Pahinui Family

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

PUBLIC INPUT FORM
Waimānalo Beach Park Pavilion Project

5/8/23

The City and County of Honolulu encourages all interested individuals and organizations to provide input on the scope of the environmental review for the subject effort, in particular alternatives to be considered, topics to be covered, and the presence of resources in the area that should be considered. Your input and suggestions will help us prepare a comprehensive Environmental Assessment (EA) that considers the community's ideas and their concerns. Space is provided below to write your comment. Please hand in this form during this meeting, or, if you prefer, submit your input before June 30, 2023, via one of the options listed below.

Input:

(1) Sink w/ a faucet near or under the pavilion would be great.

(2) outlets would be a need, higher amps, WIFI

(3) Restrooms + the building that caught on fire should be upgraded.

(4) Restrooms should be #1 priority w/ lights, smky, SOAP, faucets (Expedite)

(5) Gabby P. Well retained

(6) Sides to keep the rain out

(7) one time permit for all areas

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Holly San Miguel **Address:**

Phone or Email: 808 1265290

Organization: Resident

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

PUBLIC INPUT FORM
Waimānalo Beach Park Pavilion Project

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Input:

- process takes too long - please help us sooner
- bathrooms highest priority
- get permits for whole project including bathrooms & rec room
- pavilion should be built with least repairs for the future (skylights will leak & no resources to repair it)
- Waimanalo has been waiting for years - the gym, the bathrooms & the pavilion
- meeting time conducive to working people's schedules

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Brenda Wong **Address:** 41-666 Kaaumana Pl

Phone or Email: jhilanijowong@yahoo.com

Organization: Waimanalo Parks & Rec member

Submittal options:
1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

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Waimānalo Beach Park Pavilion Project

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Input:

- Degut office bldg. Don't get rid of rock pillars they are a part of our community.

- Put a single bathroom in office bldg. A Plus!!

- Take down half rock wall both sides going to restroom - blind spot - don't know what may be behind wall.

- Use rock to build half moon coverage at both showers, while rinsing off. I've witness to many eyes staring while people are at the showers cleaning sand from their clothes. And it's disturbing - Do something

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Sandra Clarke **Address:** 41-278 Kakinui St. Waimanalo, Hi. 96795

Phone or Email: (808) 853-7415

Organization:

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

PUBLIC INPUT FORM
Waimānalo Beach Park Pavilion Project

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Input: Paint - use enamel paint, proactive against graffiti. NO SKY LIGHT/LITE. INCREASE BUDGET, STAINLESS STEEL REBAR IS VERY EXPENSIVE. PAINT INTERIORS WITH WHITES AND LIGHT COLORS WITH REFLECTIVE COATING. MAKE PUKA'S IN PERIMETER WALLS LARGER TO INCREASE AIR FLOW AND LET MORE LIGHT IN. DO NOT USE PREFAB BATHROOM BC IT WILL NOT HANDLE SEA SIDE CONDITIONS (I.E. SALT WATER)

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Taylor DiMatti9 **Address:** Waikupanaha Street

Phone or Email: TDM@hawaiivp-com

Organization: President & Vernacular Pacific

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

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Input: Priority's

1.) Restrooms

2.) Recreation Facility

3.) "Pops" Gabby Pahinui Wall to include holders to put flowers, gifts, to keep the Memories of Waimanalo Musicians, Singers, Entertainers,

4.) The New "Pavilion" Structure

* The Problem I learned that City & County workers is on a work order that takes along, along, along, long time to fix, repair, change, uses the Restrooms

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Louisa Keawe **Address:** 150 Hanaloa [illegible] 96734
Phone or Email: (808) 718-7397
Organization: Self

Submittal options:
1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
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Input: - Solar panels, fix bathrooms first,
- No skylights unless can guarantee
- No leaks.
- potential space to cook.

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Valerie T. **Address:** _____

Phone or Email: e Vtrujillo@dcca.hawaii.gov.

Organization: Division of Consumer Advocacy

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

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Input:

- Bathroom Priority.
- Budget to include all buildings in this project to speed the process of repairing the facilities.
- To possibly include prep. station for food in pavilion
- Bathroom feels unsafe, entrance should face the pavilion
- Lighting and electricity. Solar?

-Reuse pohaku (from structure)
-Bathroom in Rec. Building for employees-

- Increase ~~possible~~ Budget to include 3 Bldgs. to 1 project.

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Kalani Mahoe **Address:**

Phone or Email: K_Mahoe@Yahoo.com

Organization: Resident

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

* Request Response back to email.

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Input: Comfort Stations, Pavillion, & Craft room to be included in the EA. The original pavillion served the community well & I'd like to see the design remain. Color choice can help w/ better lighting. Running water & a table top (cement) next to water would give community an area to prep food. Keep the Gully plaque & wall in tact please.

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Kukana Kama-Toth **Address:** 41-731 Bell st. Waimanalo, HI 96795
Phone or Email: (808)375-9961, Kana.zac98@
Organization: Na Kua'aina O Waimanalo (Ka'ohi?)

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapiʻolani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

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Waimānalo Beach Park Pavilion Project

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Input: Should have more community meetings, about this Project and possible all Projects involved in our community And make it time availability for people to attend these meetings. More people would've been @ this meeting if the time was later.

Our Pavillion is our Backyard place make it a place again instead of a ghost town. But Keep it clean and always maintain also after our ewa work on fixing our gym. Been like this 5 years so sad. We have Keiki's to keep out of trouble and safe.

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Louanna P. Kau **Address:** 41-601 Iwaolo St

Phone or Email: louiehawaii@yahoo.com

Organization: Resides in Waimanalo

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
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Input: THANK YOU FOR CAMING OUT TO WAIMANALO

1. PRIORITIZE BATHROOMS OVER PAVILLION
2. ADD BATHROOM CAPACITY
3. ENSURE USE OF ENVIRONMENTALLY (CAUSTIC) TOLERANT MATERIALS! NO WOOD, NO METAL, 100 YR DESIGN LIFE
4. ENGAGE MUSICIANS ON ACOUSTIC PERFORMANCE, CONSIDERING EVOLUTION OF AMPLIFIED MUSIC IN FUTURE
6. ENSURE FIREPROOFNESS AND BUG PROOF (NO INTERNAL CAVITIES WHERE BUGS CAN LIVE (RATS TOO)
6. HOLD COMMUNITY MEETINGS IN EVENING, VIRTUAL OK.
7. REPORT STATUS MONTHLY AT NEIGHBORHOOD BOARD MEETING (SECOND MONDAYS)
8. ENSURE ADEQUATE ELECTRIC POWER FOR MUSIC NEEDS
9. EVALUATE TRANSLUCENT FABRIC ROOF FOR BRIGHT INTERIOR W/O LIGHTS
10. CONSIDER ARCHITECTURAL REFLECTION OF PLACE, CULTURE, PAST, FUTURE IN COMING UP WITH DESIGN -- DON'T JUST COPY PAST DESIGN

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: T. RALSTON

Address: 41863 CAUMILO ST WAIMANALO 96815

Phone or Email: ted.ralston@gmail.com

Organization: WNB

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

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Input: We do the Waimanalo Kamikapila in April now 16 yrs We are glad the look will be the same & also add the skylights to lighten up the inside

We appreciate adding Electric for Services such events

We also like having the Wall remain & plaque & dedication of the Pavilion to Gabby Pahinui

Bathrooms Have always been a problem & it is the only thing we get complaints about need bigger & ability to clean easier

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Chelle Pahinui **Address:** PO Box 29693 Honolulu, HI 96820

Phone or Email: Chelle@cyrilpahinui.com

Organization: Naalehu Theatre

Submittal options: 1. Mail: Planning Solutions, Inc., 711 Kapi'olani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

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Input: No skylights, need to take all the rains pouring down on the ~~Gym~~ Gym Waimanalo, Working bathrooms

Notice: Before including your personal identifying information, you should be aware that your input—including accompanying personal identifying information—might be made publicly available at any time. Your input will be considered with or without the following optional information (please print):

Name: Terri Gayle C. Modore **Address:** 41-~~[illegible]~~ 209 Flashdale St #5?

Phone or Email: [illegible]

Organization: ~~Resident~~ Resident

Submittal options:
1. Mail: Planning Solutions, Inc., 711 Kapiʻolani Blvd. #950, Honolulu, HI 96813
2. Email: julia@psi-hi.com

QUESTIONNAIRE
Waimānalo Beach Park Pavilion Project

How often do you utilize Waimānalo Beach Park?

☐ More than once a week. ☐ Once a month. ☒ Once a year.
☐ Once a week. ☐ Six times a year. ☐ Never.

How often did you use the former pavilion?

☐ More than once a week. ☐ Once a month. ☒ Once a year.
☐ Once a week. ☐ Six times a year. ☐ Never.

What did you like/not like about the former pavilion? I liked it was open to the ocean & sky, Didn't like all the concrete use more natural materials

What amenities should the new pavilion include? Better bathrooms, use natural materials, less concrete

How should the new pavilion address homeless concerns? _____

How would the proposed pavilion impact the environment? Be a part of the environment, integrated

Should the new pavilion be rededicated to Gabby "Pop" Pahinui?

☒ Yes
☐ No, it should be dedicated to _____.
☐ No, it should not be dedicated to anyone.

Would you like to participate in the cultural impact assessment (CIA) for the project?

☒ Yes, provide contact information pahinuikdl@hawaii.rr.com
☐ No.

What other improvements would you like to see at Waimānalo Beach Park? _____

Provide additional input here: _____

QUESTIONNAIRE
Waimānalo Beach Park Pavilion Project

How often do you utilize Waimānalo Beach Park?

- [x] More than once a week.
- [ ] Once a week.
- [ ] Once a month.
- [ ] Six times a year.
- [ ] Once a year.
- [ ] Never.

How often did you use the former pavilion?

- [ ] More than once a week.
- [ ] Once a week.
- [ ] Once a month.
- [ ] Six times a year.
- [ ] Once a year.
- [x] Never.

What did you like/not like about the former pavilion? Disrepair

What amenities should the new pavilion include? Food prep area

How should the new pavilion address homeless concerns? There should be some kind of enclosure to insure people wouldn't take up residence.

How would the proposed pavilion impact the environment? No more than the existing one does.

Should the new pavilion be rededicated to Gabby "Pop" Pahinui?

- [x] Yes
- [ ] No, it should be dedicated to _____.
- [ ] No, it should not be dedicated to anyone.

Would you like to participate in the cultural impact assessment (CIA) for the project?

- [ ] Yes, provide contact information _____.
- [ ] No.

What other improvements would you like to see at Waimānalo Beach Park? Repair and update, Keep grounds groomed. Lock up premises when not in use.

Provide additional input here: I am an 80yr old and I remember when all public parks had a caretaker living on the grounds. Since its discontinuance problems continuously exist with major issues. With repairs and homelessness isn't it time to revisit having a permanent caretaker for our parks.?

QUESTIONNAIRE
Waimānalo Beach Park Pavilion Project

How often do you utilize Waimānalo Beach Park?

- [x] More than once a week.
- [ ] Once a week.
- [ ] Once a month.
- [ ] Six times a year.
- [ ] Once a year.
- [ ] Never.

How often did you use the former pavilion?

- [ ] More than once a week.
- [ ] Once a week.
- [x] Once a month.
- [ ] Six times a year.
- [ ] Once a year.
- [ ] Never.

What did you like/not like about the former pavilion? The Homeless Taking Over

What amenities should the new pavilion include? outreach for the homeless

How should the new pavilion address homeless concerns? Keep them at the other beach park

How would the proposed pavilion impact the environment? it was built on Hawaiian home lands that is the impact

Should the new pavilion be rededicated to Gabby "Pop" Pahinui?

- [x] Yes
- [ ] No, it should be dedicated to _____.
- [ ] No, it should not be dedicated to anyone.

Would you like to participate in the cultural impact assessment (CIA) for the project?

- [x] Yes, provide contact information Waimanalo Hawaiian Civic Club
- [ ] No.

What other improvements would you like to see at Waimānalo Beach Park? _____

Provide additional input here: _____

QUESTIONNAIRE
Waimānalo Beach Park Pavilion Project

How often do you utilize Waimānalo Beach Park?

- ☐ More than once a week.
- ☐ Once a month.
- ☐ Once a year.
- ☑ Once a week.
- ☐ Six times a year.
- ☐ Never.

How often did you use the former pavilion?

- ☑ More than once a week.
- ☐ Once a month.
- ☐ Once a year.
- ☐ Once a week.
- ☐ Six times a year.
- ☐ Never.

What did you like/not like about the former pavilion? _____

What amenities should the new pavilion include? food prep -

How should the new pavilion address homeless concerns? yes, safety issues possible gate, closed prep station

How would the proposed pavilion impact the environment? _____

EA should determine

Should the new pavilion be rededicated to Gabby "Pop" Pahinui?

- ☑ Yes
- ☐ No, it should be dedicated to _____.
- ☐ No, it should not be dedicated to anyone.

Would you like to participate in the cultural impact assessment (CIA) for the project?

- ☑ Yes, provide contact information (808) 953-5347.
- ☐ No.

What other improvements would you like to see at Waimānalo Beach Park? _____

Bathroom 3, Basketball court lights are hanging by a string and (hazardous) - Safety concern

Provide additional input here: _____

Bathroom entrance should face pavilion and showers should be secured. or block from public view.

Provide community services to the homeless members that may use the pavilion or facility areas. to meet w/ public.

QUESTIONNAIRE
Waimānalo Beach Park Pavilion Project

How often do you utilize Waimānalo Beach Park?

☐ More than once a week. ☒ Once a month. ☐ Once a year.
☐ Once a week. ☐ Six times a year. ☐ Never.

How often did you use the former pavilion?

☐ More than once a week. ☒ Once a month. ☐ Once a year.
☐ Once a week. ☐ Six times a year. ☐ Never.

What did you like/not like about the former pavilion? LOVED EVERYTHING.

What amenities should the new pavilion include? INCREASE AMPERAGE.

How should the new pavilion address homeless concerns?

WIFI, MORE FREQUENT VISITS FROM DPR STAFF.

How would the proposed pavilion impact the environment?

NOT MUCH IF BUILT SAME.

Should the new pavilion be rededicated to Gabby "Pop" Pahinui?

☒ Yes
☐ No, it should be dedicated to _____.
☐ No, it should not be dedicated to anyone.

Would you like to participate in the cultural impact assessment (CIA) for the project?

☐ Yes, provide contact information _____.
☒ No.

What other improvements would you like to see at Waimānalo Beach Park?

BATHROOMS.

Provide additional input here: NO PREFABS.

QUESTIONNAIRE
Waimānalo Beach Park Pavilion Project

How often do you utilize Waimānalo Beach Park?

☐ More than once a week. ☐ Once a month. ☑ Once a year.
☐ Once a week. ☐ Six times a year. ☐ Never.

How often did you use the former pavilion?

☐ More than once a week. ☐ Once a month. ☑ Once a year.
☐ Once a week. ☐ Six times a year. ☐ Never.

What did you like/not like about the former pavilion? We put on the Waimānalo Kanikapila & Liked using it For Concert

What amenities should the new pavilion include? Capability for PA & Food Service Electrical Bathrooms are a mess & Need Better

How should the new pavilion address homeless concerns? set up camp somewhere else so no need be at park - Drugs are issue

How would the proposed pavilion impact the environment? Its Needed as weather does not allow untented activities on East side wind/rain etc -

Should the new pavilion be rededicated to Gabby "Pop" Pahinui?

☑ Yes As the wall is still standing

☐ No, it should be dedicated to _____.

☐ No, it should not be dedicated to anyone.

Would you like to participate in the cultural impact assessment (CIA) for the project?

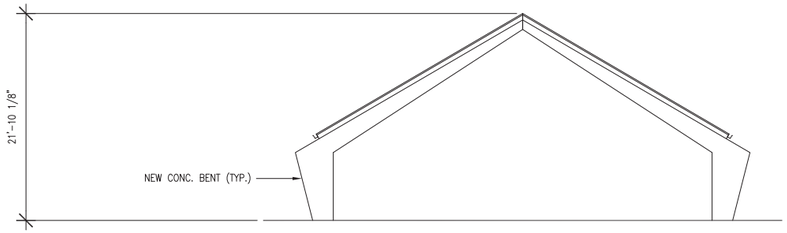
☑ Yes, provide contact information _____.

☐ No.

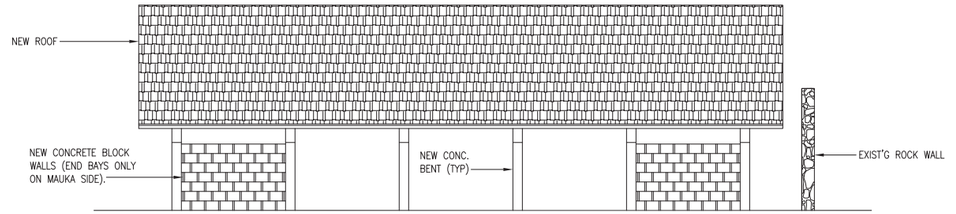
What other improvements would you like to see at Waimānalo Beach Park? _____

Provide additional input here: We would like to help fund raising to do a Kanikapila Mural at the pavilion & Improve the restrooms

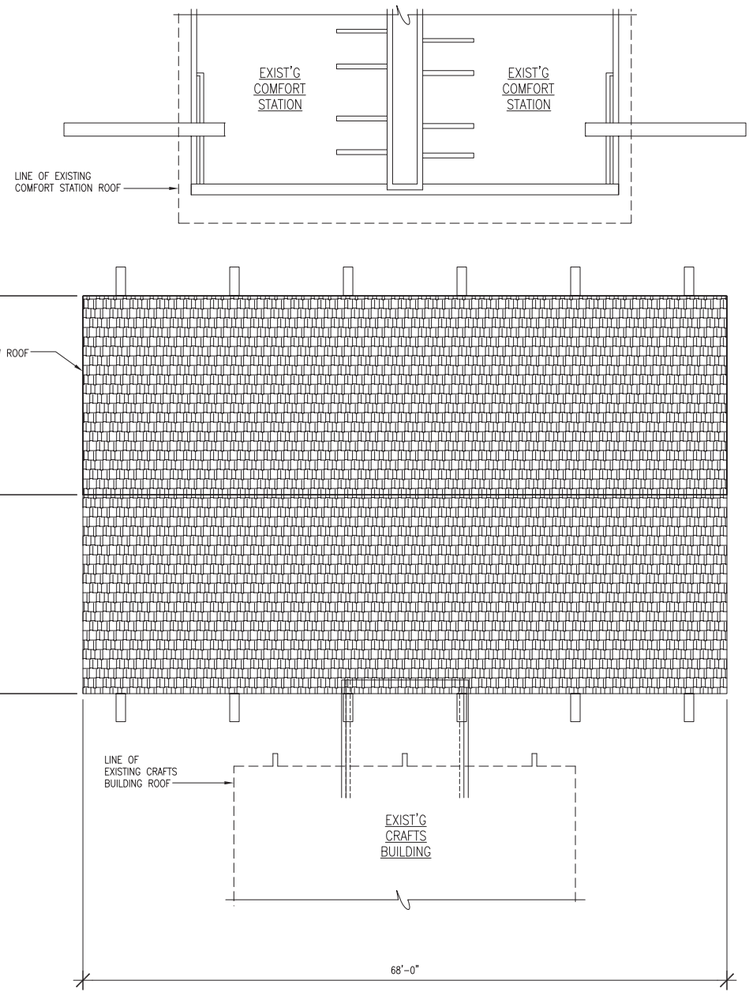
Appendix C. Conceptual Design Drawings



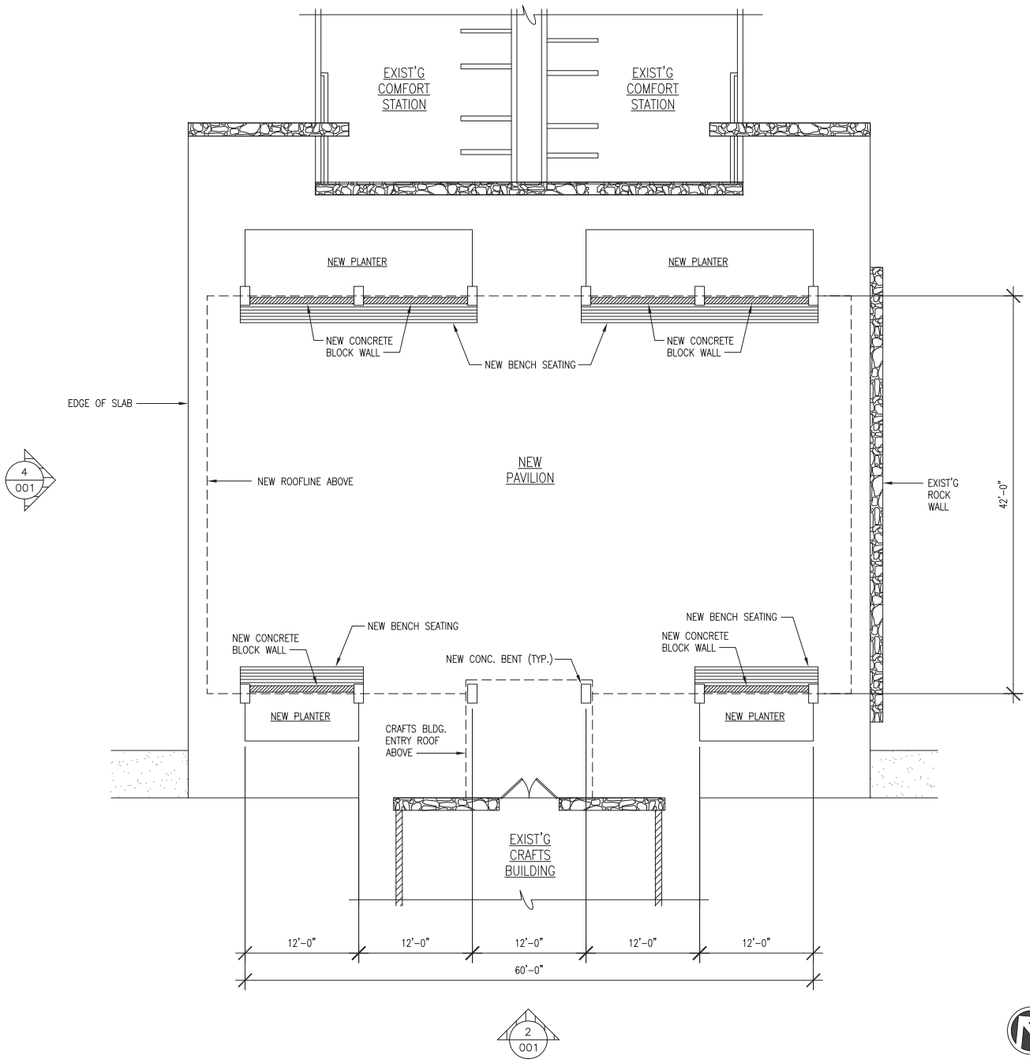
TYPICAL ENDWALL ELEVATION | SCALE: 1/8" = 1'-0" | 4



MAUKA SIDEWALL ELEVATION | SCALE: 1/8" = 1'-0" | 2



PROPOSED ROOF PLAN | SCALE: 1/8" = 1'-0" | 3



PROPOSED FLOOR PLAN | SCALE: 1/8" = 1'-0" | 1

GRAPHIC SCALES: (Scale: 1/8"=1'-0") 0 4 8 16

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

JEFFREY Y. NISHI
LICENSED PROFESSIONAL ARCHITECT
No. 3797
HAWAII, U.S.A.
EXP. DATE 04/30/24

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

DESIGN JYN | DRAWN DMH | REVIEW JYN | BY: | DATE: 03/01/23 | CHIEF, FACILITIES DIVISION

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY & COUNTY OF HONOLULU

WAIMANALO BEACH PARK
PROPOSED PAVILION

PROPOSED FLOOR PLAN, ROOF PLAN AND ELEVATIONS

JOB NO.	18-P-16
DRAWING NO.	001
SHEET NO.	1 OF 1
FILE NO.	109/56

C:\Users\Jeffrey\Dropbox\2005 - C&C Waimanalo Pavilion ReBuild\Dwg\1605 Waimanalo Pav Arch.dwg Plotted:7/27/2023 2:56 PM

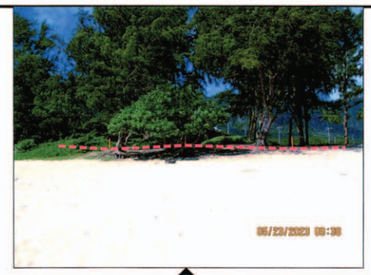
Appendix D. Certified Shoreline

1

2

3

4



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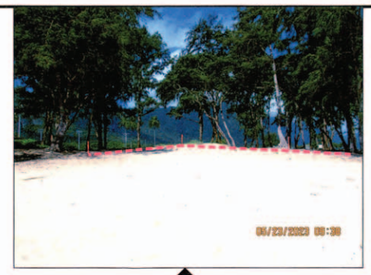

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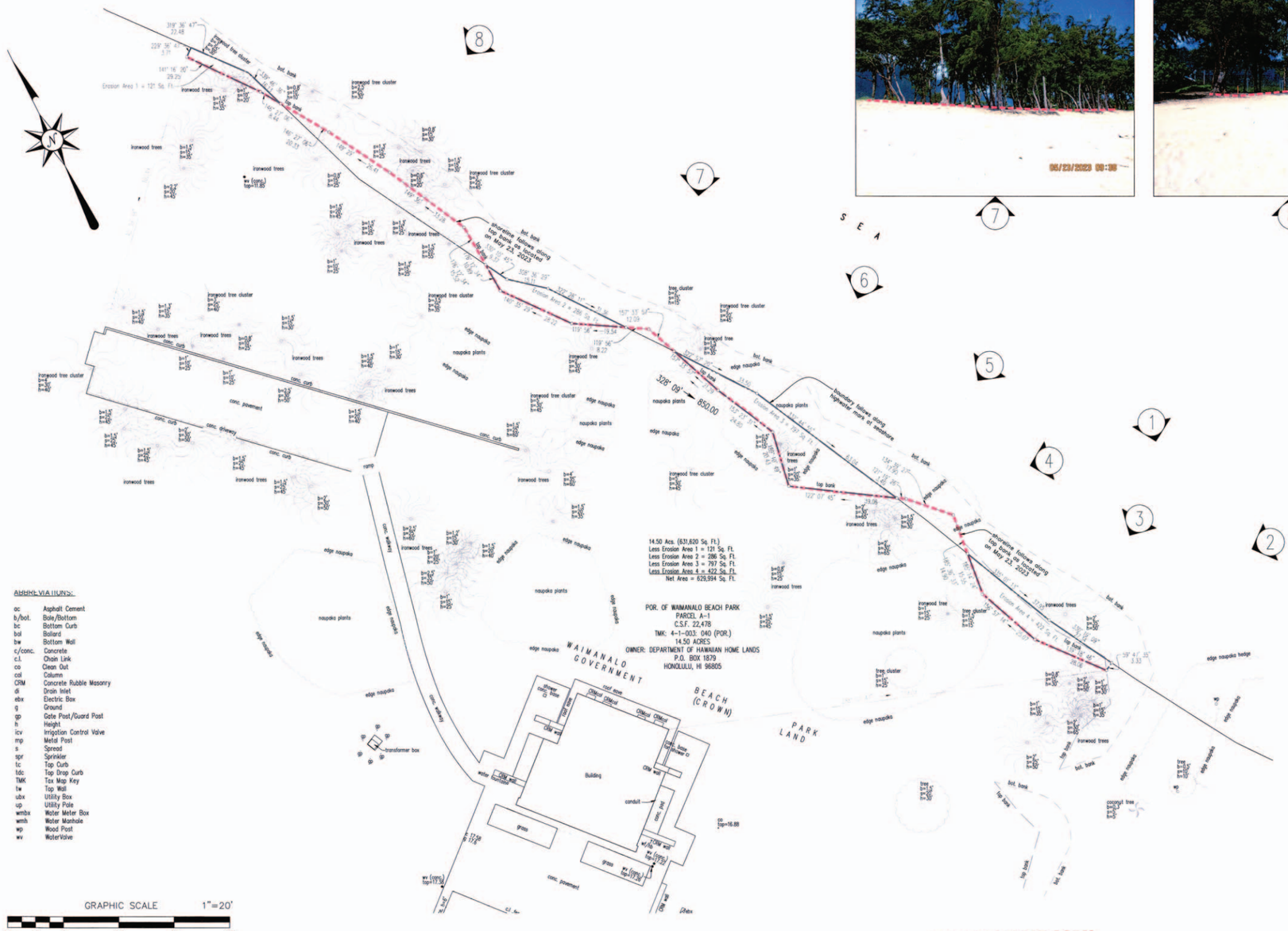

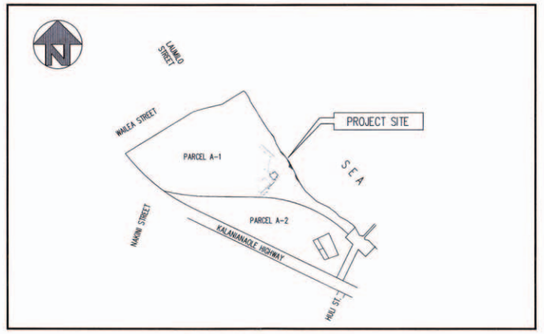

VICINITY MAP
NOT TO SCALE

SURVEY OFFICE COPY

The shoreline as delineated in red is hereby certified as the shoreline as of
OCT 2 9 2023

Chairperson, Board of Land and Natural Resources

KENN S. NISHIWAKI
LICENSED PROFESSIONAL LAND SURVEYOR
No. 9043
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
EXP.: 04/24
LICENSED PROFESSIONAL LAND SURVEYOR No. 9043

KN Surveying, LLC
1733 LILIHA STREET
HONOLULU, HAWAII 96817
PH. (808) 524-7100

SHORELINE SURVEY AT WAIMANALO BEACH PARK

OWNER: DEPARTMENT OF HAWAIIAN HOME LANDS
PORTION OF PARCEL A-1
AS SHOWN ON C.S.F. 22,478
WAIMANALO, KOOLAPOKO, OAHU, HAWAII
TAX MAP KEY: 4-1-003: 040 (POR.)
SCALE: 1 IN. = 20 FT.

MAY 23, 2023 FIELD BOOK NO. 751: PG 1-27

24 x 36

Appendix E. Archaeological Literature Review and Field Inspection

REVISED DRAFT

Archaeological Literature Review and Field Inspection of Waimānalo Beach Park Pavilion Replacement Project, Waimānalo Ahupua‘a, Ko‘olaupoko District, O‘ahu Island TMK: [1] 4-1-003:040 (por.)

View of a portion of the project area (previous pavilion location) facing south-southwest

Prepared for
Planning Solutions, Inc.
Honolulu, Hawai‘i

Prepared by
Christopher M. Monahan, Ph.D.
and
Trisha K. Watson, J.D., Ph.D.

HONUA CONSULTING
Honolulu, Hawai‘i

January 2024
(Revised)

Management Summary

This report was completed on behalf of Planning Solutions, Inc., in support of its Waimānalo Beach Park Pavilion Replacement project, Waimānalo Ahupua‘a, Ko‘olaupoko District, Island of O‘ahu, Hawai‘i. The project proponent is the Department of Design and Construction (DDC), on behalf of the Department of Parks and Recreation (DPR), City and County of Honolulu. The project area is within TMK (1) 4-1-003:040. The landowner is Hawaiian Home Lands. The new pavilion will replace a former pavilion (removed in 2019) that honored the great Hawaiian musician, Gabby Pahinui, who lived in Waimānalo for many years.

The objectives of this Archaeological Literature Review and Field Inspection (ALRFI) are the following: (1) documentation and description of the parcel's land-use history in the context of both its traditional Hawaiian character as well as its historic-period changes; (2) identification of any historic properties or component features in the project area; and (3) providing information relevant to the possibility of encountering historically-significant cultural deposits in subsurface context during future construction. This ALRFI is not an archaeological inventory survey (AIS), and it is not intended for formal review by the State Historic Preservation Division (SHPD). It may be used, however, to support the project proponent's consultation with the SHPD in compliance with Hawai‘i Revised Statutes (HRS) Chapter 6E and Hawai‘i Administrative Rules (HAR) Chapter 13-275.

The proposed project description and scope of work is as follows: The former pavilion, built in 1961, was dedicated in memory of Gabby "Pops" Pahinui; it became dilapidated and was removed in 2019 due to safety concerns. The proposed pavilion would be similar to the former pavilion. It would be in the same place (roughly 170 feet from the shoreline), have a similar size and height, and use the existing foundation and concrete slab. Modern materials would be used to improve longevity and functionality. There are no plans to conduct subsurface excavation (construction digging) for the proposed project.

As described in this report, archival research and fieldwork demonstrate several relevant findings: (1) to the best of our knowledge, the project area has not previously been subject to a formal archaeological assessment or archaeological inventory survey (AIS); (2) previous archaeological work in the vicinity has yielded multiple traditional Hawaiian sites in subsurface context, including human burials (e.g., State Inventory of Historic Places [SIHP] #s 50-80-15-05953 and -04118) and cultural layers (e.g., SIHP # 50-80-15-07042, -06696 and -05953); numerous other, similar findings have been made further down along Kalaniana‘ole Highway towards Makapu‘u; (3) Simonson et al.'s (2008) in support of wastewater system improvements next to the eastern comfort station portion of the current project area identified a subsurface cultural layer (SIHP # 50-80-15-07042) with pre-Contact radiocarbon dates and traditional Hawaiian artifacts; (4) like the rest of shoreline in Waimānalo, the project area is located in Jaucas sand and Beaches deposits, which are known to contain traditional Hawaiian sites in subsurface context; (5) potential architectural historic properties in the project area include the existing concrete pad/footing (built circa 1961) of the now razed pavilion, the western comfort station (built 1960) and the eastern comfort station (construction date unknown). Based on all available evidence, our recommendations are as follows: (1) The SHPD-Architecture Branch should be consulted regarding the historic significance of the existing concrete pad/footing (built

circa 1961) of the now razed pavilion, the western comfort station (built 1960) and the eastern comfort station (construction date unknown); and (2) The SHPD-Archaeology Branch should be consulted regarding the location and depth of proposed subsurface excavation (i.e., construction digging) needed to renovate the western and eastern comfort stations; previous archaeological research adjacent to the eastern comfort station, in particular, has demonstrated the existence of a subsurface cultural layer (SIHP # 50-80-15-07042) with pre-Contact radiocarbon dates and traditional Hawaiian artifacts; the uppermost portion of this site is about 105–160 centimeters below ground surface.

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Table

Section 1 Introduction

1.1 Project Background

This report was completed on behalf of Planning Solutions, Inc., in support of its Waimānalo Beach Park Pavilion Replacement project, Waimānalo Ahupuaʻa, Koʻolaupoko District, Island of Oʻahu, Hawaiʻi (Figure 1 and Figure 2). The project proponent is the Department of Design and Construction (DDC), on behalf of the Department of Parks and Recreation (DPR), City and County of Honolulu.

The project area is within TMK (1) 4-1-003:040 (Figure 3). The landowner is Hawaiian Home Lands. The project area is part of Waimānalo Beach Park situated between Kalaniana'ole Highway and the seashore, south of the residential area known as Waimānalo Beach Lots and just across the highway from Blanche Pope Elementary School. The new pavilion will replace a former pavilion originally built in 1961 (removed in 2019) that honored the great Hawaiian musician, Gabby Pahinui, who lived in Waimānalo for many years.

The objectives of this Archaeological Literature Review and Field Inspection (ALRFI) are the following: (1) documentation and description of the parcel's land-use history in the context of both its traditional Hawaiian character as well as its historic-period changes; (2) identification of any historic properties or component features in the project area; and (3) providing information relevant to the possibility of encountering historically-significant cultural deposits in subsurface context during future construction.

This ALRFI is not an archaeological inventory survey (AIS), and it is not intended for formal review by the State Historic Preservation Division (SHPD). It may be used, however, to support the project proponent's consultation with the SHPD in compliance with Hawai'i Revised Statutes (HRS) Chapter 6E and Hawai'i Administrative Rules (HAR) Chapter 13-275.

The proposed project involves the following scope of work at the pavilion and two comfort stations (i.e., bathrooms), the western comfort station (adjacent to the pavilion) and the eastern comfort station:

- The former pavilion, built in 1961, was dedicated in memory of Gabby "Pops" Pahinui; it became dilapidated and was removed in 2019 due to safety concerns. The proposed pavilion would be similar to the former pavilion. It would be in the same place (roughly 170 feet from the shoreline), have a similar size and height, and use the existing foundation and concrete slab. Modern materials would be used to improve longevity and functionality;
- There are no plans to conduct subsurface excavation (construction digging) for the proposed pavilion rebuild;
- The two existing comfort stations (western and eastern) will be upgraded but will use the existing septic and leach field systems;
- Ground disturbance (construction excavation) may be needed at the comfort stations but will be minimized by confining it, as much as possible, to areas of previous ground disturbance.

Figure 4 is a client-provided site map showing the locations of the pavilion, western comfort station and eastern comfort station in the context of other existing features in the park.

As described in this report, archival research and fieldwork demonstrate several relevant findings: (1) to the best of our knowledge, the project area has not previously been subject to a formal archaeological assessment or archaeological inventory survey (AIS); (2) previous archaeological work in the vicinity has yielded multiple traditional Hawaiian sites in subsurface context, including human burials (e.g., State Inventory of Historic Places [SIHP] #s 50-80-15-05953 and -04118) and cultural layers (e.g., SIHP # 50-80-15-07042, -06696 and -05953); numerous other, similar findings have been made further down along Kalaniana‘ole Highway towards Makapu‘u; (3) Simonson et al.’s (2008) in support of wastewater system improvements next to the eastern comfort station portion of the current project area identified a subsurface cultural layer (SIHP # 50-80-15-07042) with pre-Contact radiocarbon dates and traditional Hawaiian artifacts; (4) like the rest of shoreline in Waimānalo, the project area is located in Jaucas sand and Beaches deposits, which are known to contain traditional Hawaiian sites in subsurface context; and (5) potential architectural historic properties in the project area include the existing concrete pad/footing (built circa 1961) of the now razed pavilion, the western comfort station (built 1960) and the eastern comfort station (construction date unknown).

1.2 Environmental Setting

1.2.1 Natural Environment

The project area lies at approximately 13 feet (4 meters) above mean sea level and is located on the broad sand-dune deposit comprising most of the land fronting Waimānalo Bay. The area in and around the project parcel, which consists of grassy park lands, has been artificially leveled starting in the middle twentieth century (its natural state—as depicted in historical maps—would have been a landscape dotted with low sands dunes and an undulating ground surface); the project area does not contain any through-flowing streams or drainages at the ground surface.

Mean annual rainfall in the project-area environs is approximately 40 inches (1016 millimeters).

Soils in and around the project area are classified as Jaucas sand (JaC) and Beaches (BS) (Figure 5); both of these soil types, but particularly Jaucas sand, are commonly known to contain traditional (pre-Contact) Hawaiian sites in subsurface context including burials and cultural layers throughout the island of O‘ahu (Foote et al. 1972:29).

The project area is mostly hardscaped (with concrete); the only vegetation in the project area is a few areas of grass lawn.

1.2.2 Built Environment

The project area includes concrete slab/foundation material from the original pavilion, which was built in 1961, but removed in 2019 due to its dilapidated condition. The western comfort station adjacent to (makai of) the pavilion was completed in 1961. The construction date of the eastern pavilion is indeterminate at this time. Playing fields, parking lots and other infrastructure are also located in the park.

Figure 1. Portion of USGS topographic map (Koko Head [1998] quadrangle) showing project area (base map source: USGS online at http://ngmdb. usgs.gov/topoview)

Figure 2. Aerial photograph showing location of project area (base image source: Google Earth accessed April 2023)

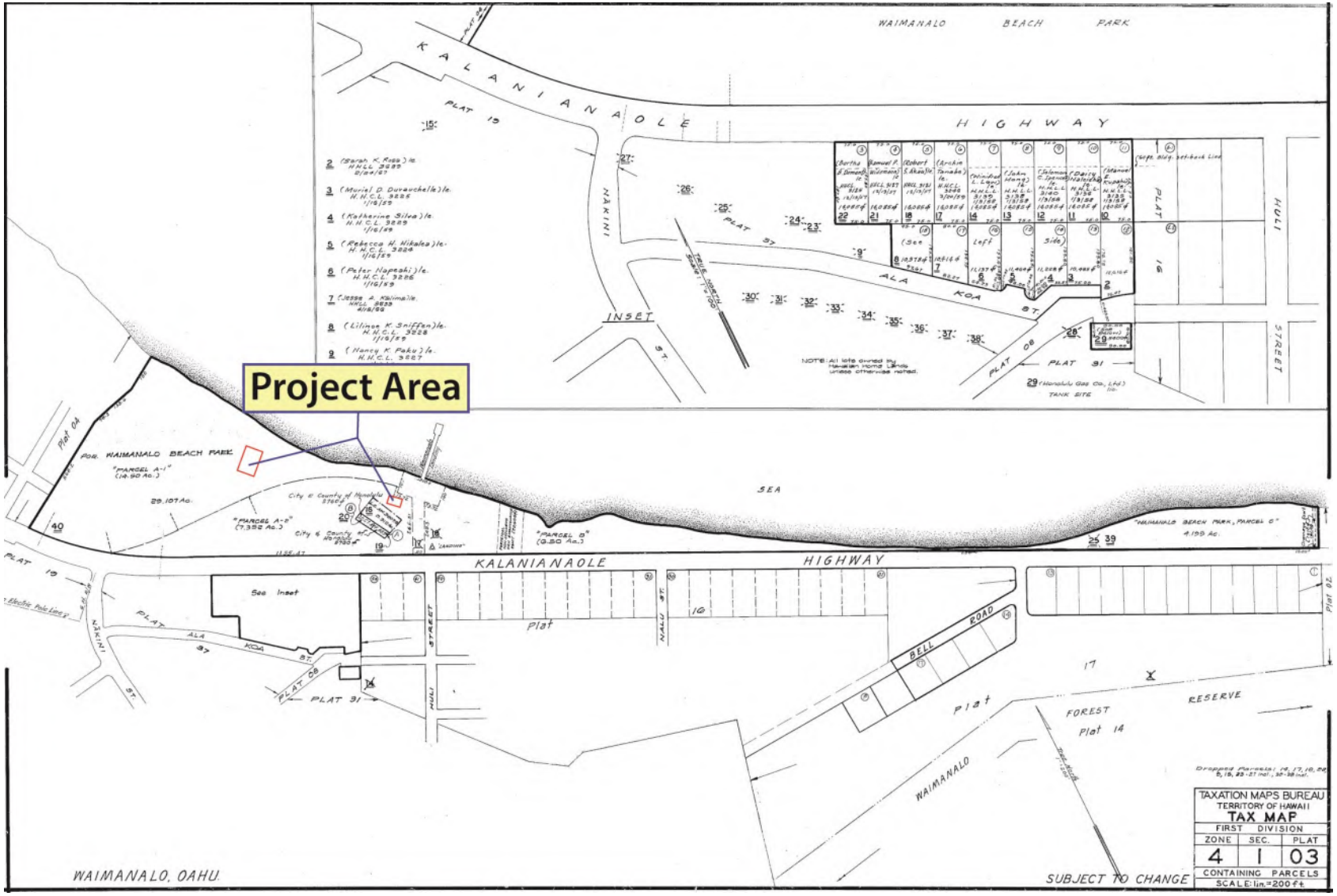

Figure 3. Tax Map Key (TMK): [1] 4-1-003 showing project area (base map source: Hawai‘i TMK Service n.d.)

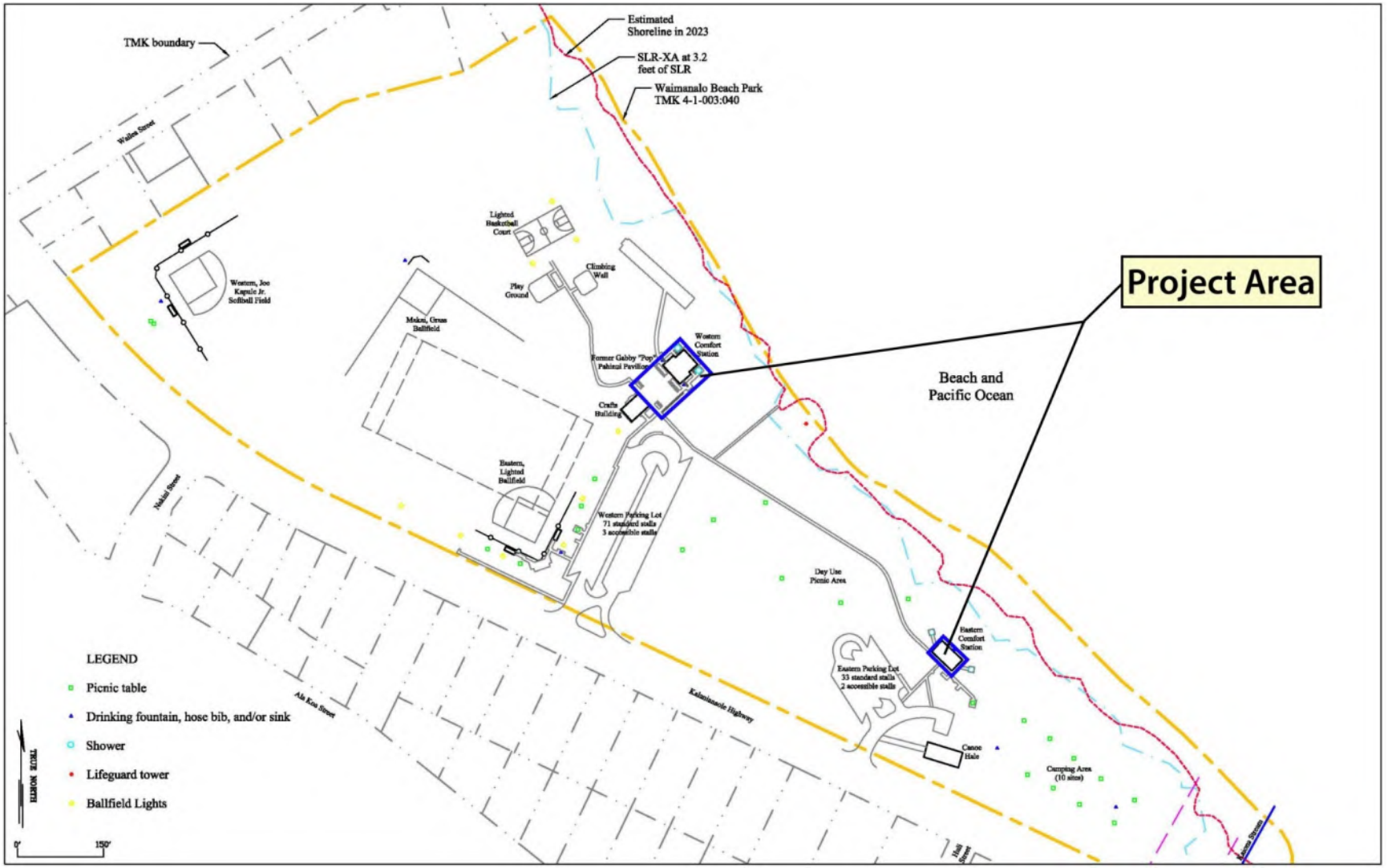

Figure 4. Project-area map showing location of pavilion and western comfort station (blue rectangle to the left) and eastern comfort station (blue rectangle to the right) (base image provided by client)

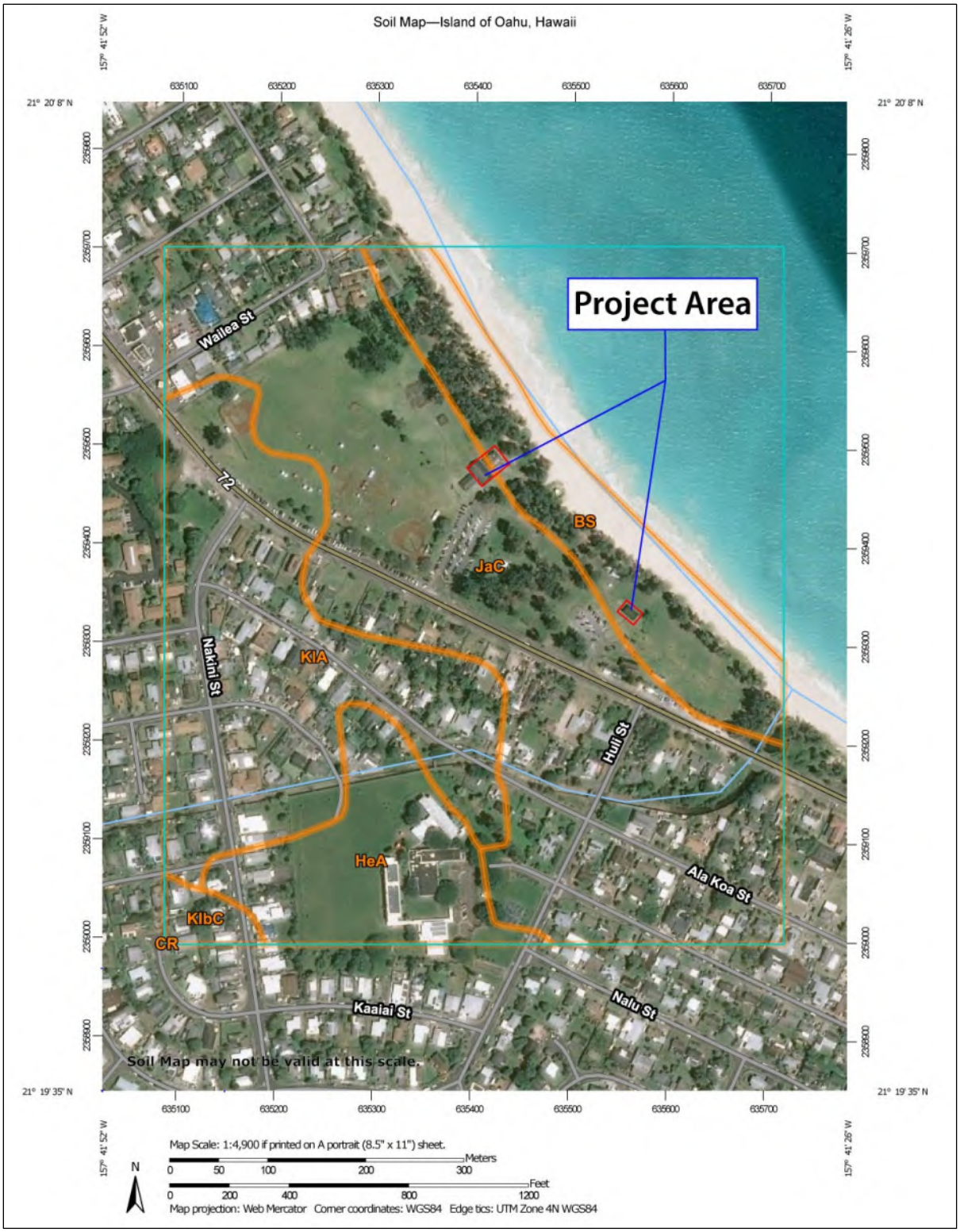

Figure 5. Soil data for the project area (base image from U.S. Department of Agriculture, Natural Resources Conservation Service soil survey at http://websoilsurvey.sc.egov.usda.gov/)

Section 2 Cultural and Historical Context

This section includes a brief synthesis of relevant cultural and historical information related to the types of land uses in and around the project area from pre-Contact, traditional Hawaiian times into the historic period. The main objective here, primarily through the analysis of historical documents, maps and aerial images, as well as secondary sources (i.e., other cultural resource management reports) is to provide a project area-specific picture of land use and modification over time.

In addition to conducting a records search at the SHPD's library in Kapolei, we also made reference to the on-line database of the Environmental Review Program (ERP), within the Office of Planning and Sustainable Development, which publishes EIS and EA documents; we also used Honua's proprietary database, as well as the following on-line sources to obtain cultural, historical and archaeological data:

- OHA's Papakilo database (http://papakilodatabase.com/main/main.php)
- OHA's Kipuka database (http://kipukadatabase.com/kipuka/)
- Bernice P. Bishop Museum archaeological site database (http://has.bishopmuseum.org/index.asp)
- Bishop's Hawaii Ethnological Notes (http://data.bishopmuseum.org/HEN/browse.php?stype=3)
- University of Hawai'i-Mānoa's digital maps (http://magis.manoa.hawaii.edu/maps/index.html)
- DAGS' State Land Survey (http://ags.hawaii.gov/survey/map-search/)
- Waihona 'Aina website (www.waihona.com)
- Digital newspaper archive "Chronicling America, Historic American Newspapers" (http://chroniclingamerica.loc.gov/lccn/sn82014681/)
- Hawai'i State Archives digital collections (http://archives1.dags.hawaii.gov/)
- U.S. Library of Congress digital map collections (https://www.loc.gov/maps/)
- USGS Information Service, including digital map collections (https://nationalmap.gov/historical/index.html)
- AVA Konohiki's website (http://www.avakonohiki.org/)

2.1 Hawaiian Cultural Landscape

The purpose of this section is to characterize the Hawaiian cultural landscape within which the project area is located; this includes a description of Waimānalo's relevant and representative inoa 'āina (place names), mo'olelo (oral-historical accounts), wahi pana (legendary places), and other natural and cultural resources. A general (ahupua'a-wide) summary is followed by a project-area specific discussion.

2.1.1 Ahupua'a Overview

As depicted in Figure 6, the size and configuration of the ahupua'a of Waimānalo has changed from its traditional Hawaiian (or O'ahuan) boundaries—which once included Maunalua Ahupua'a as an 'ili of Waimānalo (and, therefore, part of the moku of Ko'olaupoko), to its current extent. Writing in 1935, the University of Hawai'i demographer, John Wesley Coulter, described these changes:

> The land of Maunalua is an ili of the ahupuaa of Waimanalo and originally belonged to Koolaupoko district. Maps made as late as 1902 placed it in that district. It is situated on the south side of the Koolau range and should really be a

> part of Honolulu district. The many previous acts referring to the Oahu districts never did make this sufficiently clear, so in the . . . [1932 amendment to the] Revised Laws of Hawaii 1925 . . . the description of Honolulu and Koolaupoko districts clarified this point. (Sterling and Summers 1978:257)

Figure 7 is a 1929 map showing the (now outdated) Koʻolaupoko District boundary inclusive of Maunalua.

The current ahupuaʻa boundary of Waimānalo follows the ridgeline of the Koʻolau Range down to Makapuʻu (literally, "hill beginning" [with "maka" taking on the meaning of "source" or "origins"] or "bulging eye" [from a reference in the famous saga of Pele and Hiʻiakaikapoliopele]).[1] This current configuration—following the Koʻolau ridgeline—is more consistent with the physiographic characteristics of southeastern Oʻahu. In a real sense, Waimānalo's current configuration marks the start (or end) of the windward coast.

Waimānalo (literally, "potable water"), named after its single permanent stream, is associated with a number of Hawaiian accounts of pūnāwai (fresh-water springs), fishing villages and small settlements along the coast, a famous kahuna lapaʻau (traditional healer) named Kapoi, the locally-famous sea pond, Pāhonu, at the coastline named for honu (green sea turtles), the Pele and Hiʻiaka saga, and more (see below).

Waimānalo is blessed with other intangible resources that are highly-valued by many in the community, such as its unparalleled natural beauty and stunning physiography. Figure 8, an aerial image of Waimānalo from the south, illustrates its dramatic setting, nestled between the two-thousand foot pali (cliffs) of the Koʻolau ridgeline and the white sands of Waimānalo Bay. Figure 9 is a recent photograph of the prominent and unique face of the Koʻolau as seen from the center of the ahupuaʻa.

Although Waimānalo's landscape had been fundamentally altered by the time (1930s) of Handy's (1940) well-known study of traditional Hawaiian subsistence methods (commercial sugar cane agriculture since the late 1880s had taken its toll), his observations (see also Handy and Handy 1972) continue to provide valuable insights on traditional Hawaiian land use. And, despite the fact that Waimānalo has long been overshadowed by Kailua Ahupuaʻa relative to the latter's higher level of overall productivity and food-production, Handy had far more to say about Waimānalo than Kailua. Among the highlights of his presentation are the following selected passages from Handy and Handy (1972):

> . . . much of what was until recent years sugar-cane land had previously been planted to taro. There were evidences in 1935 of old loʻi much further inland, in a semicircle at the back of the broad valley [note, here, he is likely referring to an area a few miles northwest of the current project area]. A kamaʻaina of the place at that time named nine such loʻi sections whose water came from springs. (ibid.:457)
>
> [attributing this to Mary Kawena Pukui's research in 1930 Hawaiian language newspaper Hoku o Hawaii] There are two peculiar springs at Waimanalo . . . The one called Kupunakane [Grandfather] is away up in the mountains. The spring called Kupunawahine [Grandmother] is a spring way down on the level land. The

[1] Unless stated otherwise, all place name translations/interpretations are from Pukui et al. (1974).

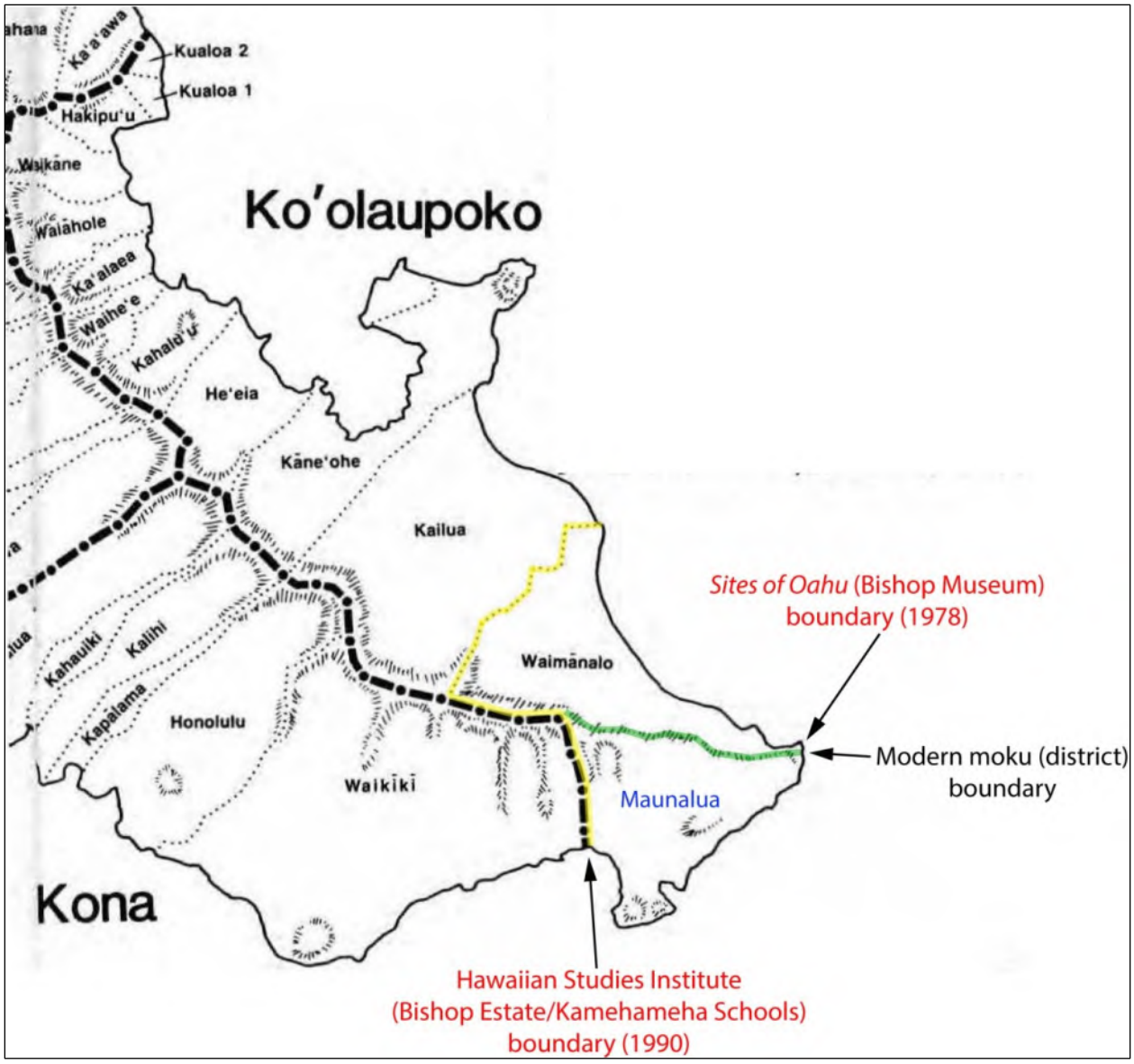

Figure 6. Variation in the southern boundary of Waimānalo Ahupua‘a (and the districts of Ko‘olaupoko and Kona [Honolulu]); the green line, as depicted in the Bishop Museum’s Sites of Oahu (Sterling and Summers 1978), has been official for nearly the last century; the yellow line, which considers Maunalua as an ‘ili of Waimānalo, is an older configuration (see, e.g., Snakenberg 1990, which is the source of this base map)

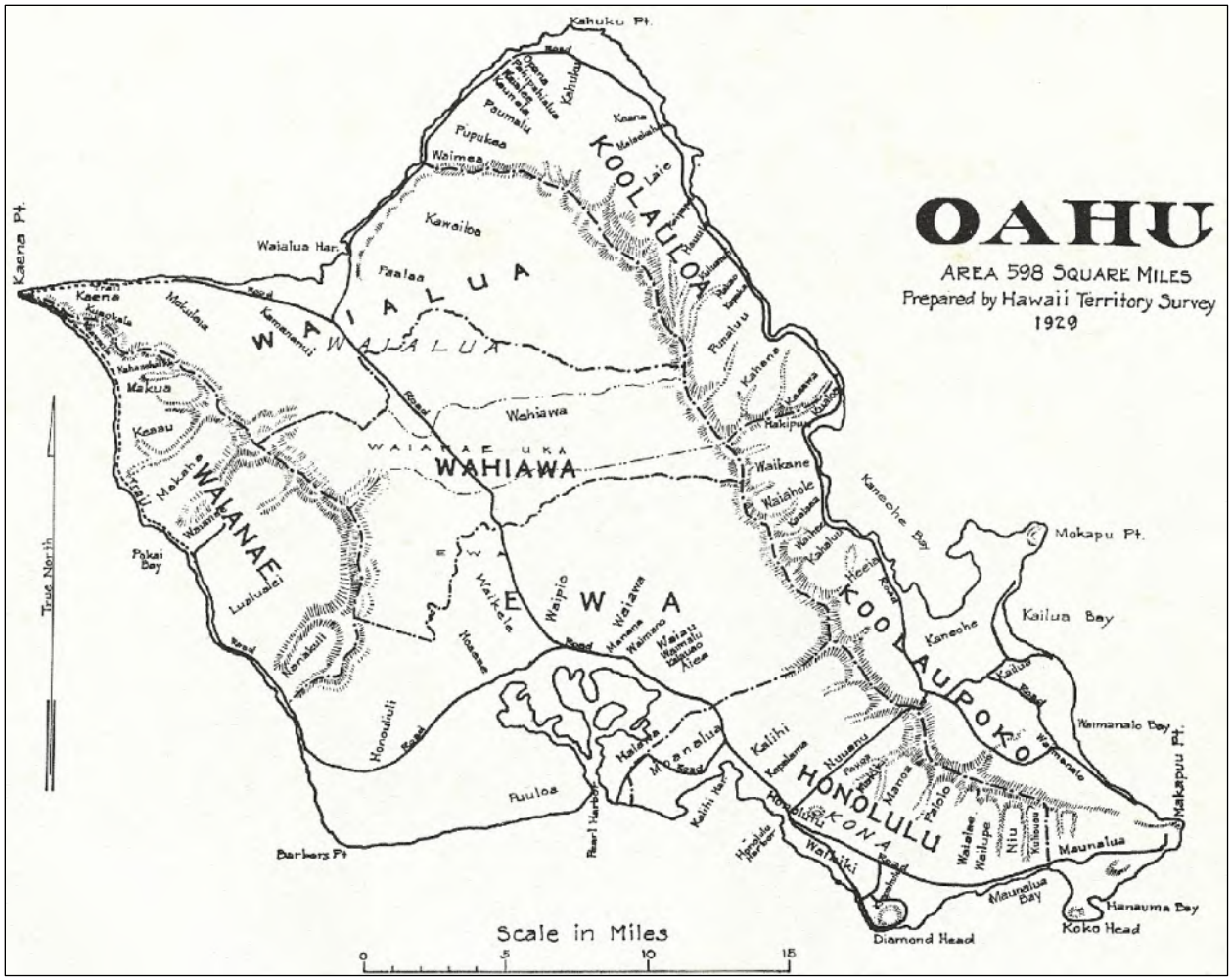

Figure 7. Map of O‘ahu Island from 1929 showing the Ko‘olaupoko District inclusive of Maunalua (source: frontispiece Sterling and Summers 1978)

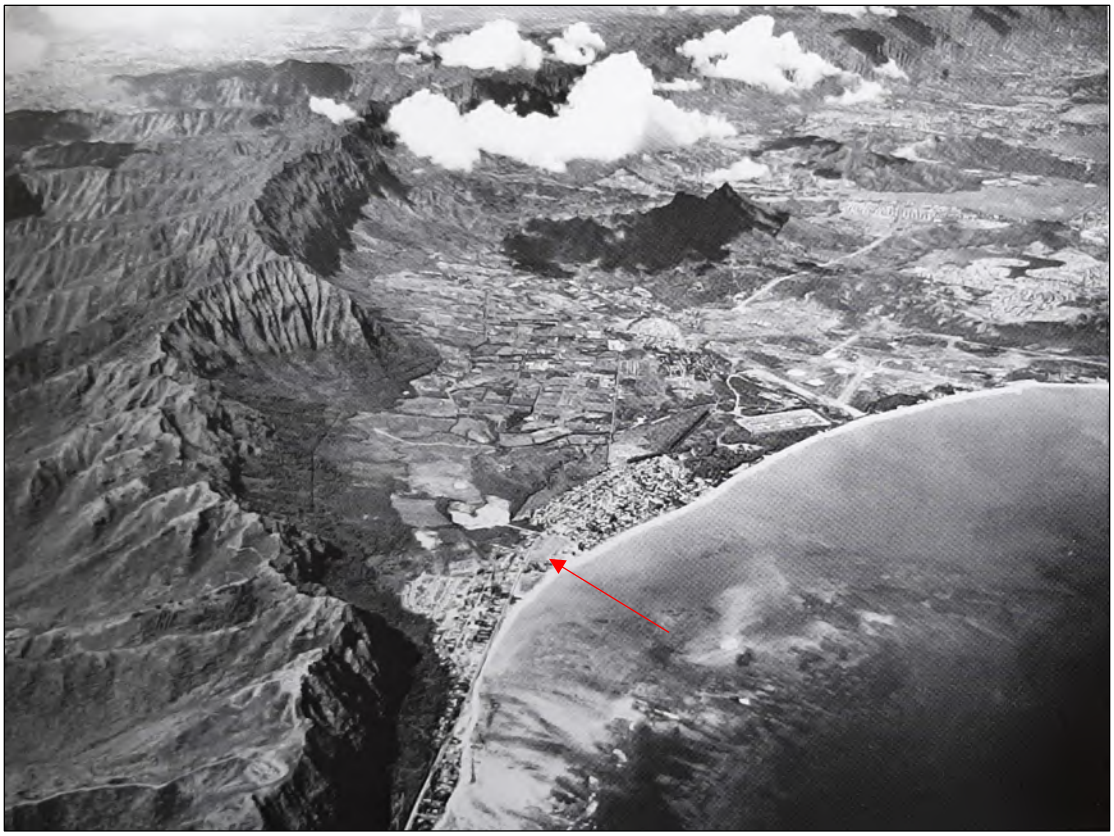

Figure 8. Undated aerial photograph of Waimānalo with darkened peaks of Olomana (i.e., southern boundary with Kailua, upper center of image); approximate location of current project area indicated by arrow (base image source: Macdonald et al. 1983:437)

Figure 9. View of the Koʻolau from the center of Waimānalo (source: Monahan)

> strange, strange thing about these two ponds was that on calm, sunny days they begin to cry out to each other. Their voices are soft and sounded very much like a woman mourning her husband. On days that were overcast with clouds in the sky, then the water of the mountain spring changed. The water of the mountain spring became warm and when you drank the water in the lowland spring it was cool, according to the legend.

Figure 10 depicts the primary, traditional Hawaiian settlement and loʻi kalo (irrigated taro) area in the northwest of the ahupuaʻa; this—centered on Waimānalo Stream and its floodplain—is a few miles northwest of the current project area.

Waimānalo's several-miles-long bay, from Wailea (literally, "water of Lea," a goddess of canoe makers) Point bordering Kailua Ahupuaʻa to Makapuʻu Point (at its southern boundary with Maunalua Ahupuaʻa), was once a favored canoe-landing location for Hawaiians.

Oral-historical accounts including references to Waimānalo include the famous saga of the Hawaiian volcano goddess, Pele, and one of her sisters, Hiʻiaka (or Hiʻiaka-i-ka-poli-o-pele), whose inter-island travels resulted in commentary about the natural and cultural resources of many places. Hiʻiaka's epic narrative mentions landing at Makapuʻu, trading fish for vegetable foods with the people of Waimānalo, an old village known as Kapua, or according to Pukui et al. (1974:89), Kapuʻa ("the whistle"), and a stream known as Muliwaiʻōlena ("turmeric river" or "yellow river") (e.g., Emerson 1915:89; Fornander 1919:Vol. VI:343; Sterling and Summers 1978:248–249). According to Sites of Oahu (Sterling and Summers 1978:map following p. 256), this village (Kapuʻa) and stream mouth (Muliwaiʻōlena) were near the current project area. Just inland of this village and stream mouth was another wahi pana known as Puʻu Molokaʻi, a place where people from that island settled and eventually became integrated into the greater Waimānalo community.

Some traditional accounts name the coastal area of central Waimānalo as ʻĀpuakea (ibid.:245), although Pukui et al. (1974:13) consider this place name to represent a land division in Kāneʻohe "probably named for a local rain . . . [literally] white fish basket."

Another famous place in Waimānalo—that can still be visited and experienced today—is Pāhonu. This fishpond-like structure along the shoreline of the southern Waimānalo coast was said to have been built for a chief who enjoyed the taste of honu (green sea turtle) meat (ibid.:249).

2.1.2 Project-Area Specific

Based on all available evidence, including its physiographic setting along the shoreline, knowledge of traditional Hawaiian settlement and subsistence patterns (e.g., Handy 1940; Handy and Handy 1972), archaeological information (see below), and oral-historical evidence, the project area may have been a place where fishermen worked to make and repair their gear; or waʻa (canoes) may have been built or maintained in or near the project area. Less likely given its proximity to the shoreline, but still a possibility (due to sea-level changes over time), it may also have been in or near traditional burial areas for makaʻāinana (commoners). It is less likely that this spot was used for Hawaiian settlement or house sites, or for cultivation/agriculture (given the sandy soil).

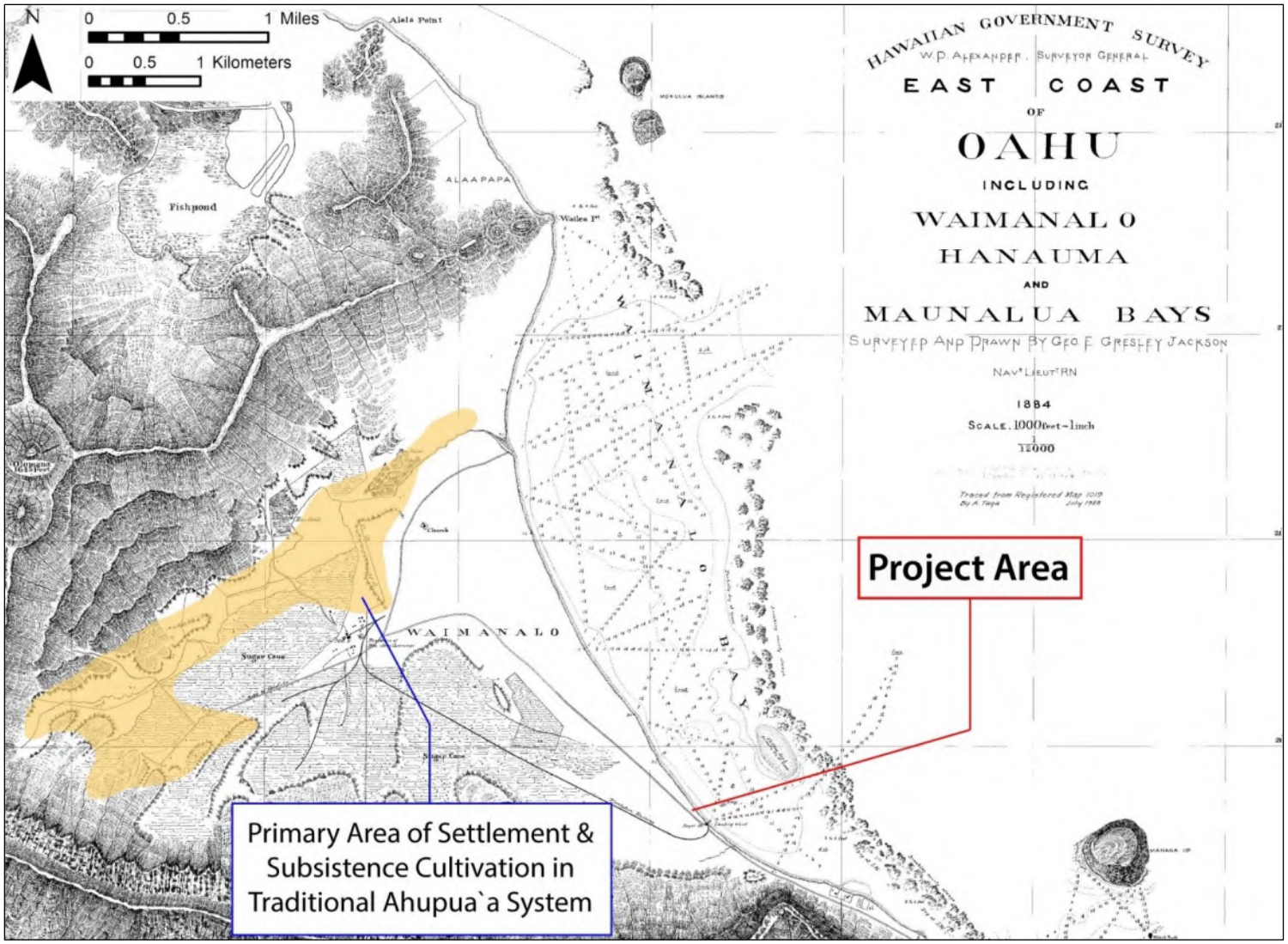

Figure 10. Primary area of traditional Hawaiian settlement and cultivation, centered on Waimānalo Stream, compared with project-area location overlain on portion of 1884 map; settlement/cultivation area based on Tulchin and McDermott (2010)

2.2 Historic Period

This section describes general land-use patterns and change in Waimānalo in the historic period, that is, following the disintegration of the traditional kapu system (circa 1820); some comments on how the project area, in particular, was affected by these changes; and historic maps and aerials that illustrate some of these temporal changes.

In the proto-historic period between the end of "pre-Contact" times and early historic times, Waimānalo was known as a famous canoe landing and departure place. For example, both Kahekili (the Maui ruler who conquered O'ahu in the early 1780s) and Kamehameha the Great (in 1795) landed portions of their war fleet in Waimānalo.

From as early as the time of Kamehameha, Waimānalo Ahupua'a was considered Crown lands. Tulchin and McDermott (2010:13), citing public records from 1929, summarize this as follows:

> After Kamehameha's conquest of O'ahu and his division of the island among his chiefs, Waimānalo was apparently retained as Kamehameha's personal property. This seems to be the case as, in 1845, when Kamehameha III, Kauikeaouli, who had "inherited" the land as a son of Kamehameha I, claimed the ahupua'a of Waimānalo "to be the private lands of his Majesty Kamehameha III, to have and to hold to himself, his heirs and successors, forever; and said lands shall be regulated and disposed of according to his Royal will and pleasure, subject only to the rights of tenants."

The middle nineteenth century legal and administrative process known as the Māhele resulted in the Land Commission Award (LCA 7713:'āpana 30, Royal Patent 4475) of the entire ahupua'a of Waimānalo to the Ali'i Nui Victoria Kamāmalu, with the exception of maka'āinana (commoner) claims. According to Tulchin and McDermott (2010:13–14):

> The ahupua'a of Waimānalo was awarded to Victoria Kamāmalu, subject to the kuleana claims of the commoners. She received the third largest share of lands among the ali'i nui (high chiefs) of the Kingdom of Hawai'i, including 47 ahupua'a-sized parcels in addition to Waimānalo. Approximately 113 kuleana land claims were awarded in Waimānalo. Nearly all of these Land Commission Awards (LCA) were located along Waimānalo Stream, or its upper tributaries, in the northwestern portion of the ahupua'a . . . While the Hawaiian population of Waimānalo was likely much larger and more dispersed in pre-contact times, it nevertheless appears that the traditional Hawaiian population of Waimānalo was always clustered along Waimānalo Stream and its upper tributaries, focused on wetland taro and sweet potato cultivation. Additional kuleana LCAs, primarily consisting of house lots, were scattered along the coastal areas of central and southeastern . . .

Several maka'āinana LCAs are located near, but not within, the current project area. A pair of awards (LCAs #s 3207:'āpana 2 [to Ihu] and 3576:'āpana 2 [Kalawaianui]) are immediately adjacent to the eastern comfort station portion of the current project area. Another cluster of three awards (LCA #s 234 L:'āpana 2, 3575:'āpana 2 and 3578:'āpana 2) is about 500 feet to the northwest (on the edge of the beach lots). All five of these LCAs were designated "house lots" (see Simonson et al. 2008:13 for more details). All of these LCA were also awarded separate

pieces (‘āpana) in the uplands along Waimānalo Stream for growing kalo (taro) and ‘uala (sweet potatoes). This area, located at least two miles inland from the current project area, is depicted in Figure 10 (above).

The two most consequential macro-economic changes in greater Waimānalo that altered land use in the historic period were first ranching, starting around the time of the Māhele, and then commercial sugar cane.

Ranching in the ahupua‘a was started by an Englishman, Thomas Cummins, who leased nearly the entire ahupua‘a from Kamehameha III in 1850 (for 50 years). Cummins used this lease to establish a large cattle and horse ranch. Cummins was responsible for building a landing (wharf) at Waimānalo Bay. This wharf was once located very close to the current project area. Many royals and other foreign- and native-born elites were entertained by Cummins in the latter half of the 1800s.

Chinese rice farmers by the 1870s were actively working some of the Waimānalo Stream floodplain areas. As happened in many places on O‘ahu, most of these small rice-growing parcels were eventually converted to commercial sugar cane.

By around 1880, the Cummins family created the Waimānalo Sugar Co., building a sugar mill near the center of the old town, and a railway down to the landing (wharf). Tulchin and McDermott (2010:16–17) summarize this impactful period in Waimānalo’s history:

> John A. Cummins saw the potential of sugar production at Waimānalo. He organized the Waimanalo Sugar Company and began construction of a sugar mill in 1880. In 1890, J. A. Cummins renegotiated his father’s original lease on the Waimānalo lands for an additional 30 years, and sublet the lands to the Waimanalo Sugar Company. The Waimanalo Sugar Company continued to buy sugar from the Chinese farmers until circa 1900, when the plantation began to do most of its own cultivation.
>
> The Waimanalo Sugar Company continued to grow, with increasing lands being put under cultivation. As the plantation grew, former ranch lands were converted to cane fields. New irrigation ditches and railroad lines were constructed, and improvements were made to the mill and Waimanalo Landing.
>
> In 1885, W.G. Irwin & Company (which later merged with C. Brewer & Company) became agents for the Waimanalo Sugar Company, with John Cummins remaining manager. John Cummins died in 1913 and his estate sold the remaining fee simple lands and the unexpired lease of Waimānalo lands to the Waimanalo Sugar Company.
>
> Water was a continuous problem for most sugar companies, including the Waimanalo Sugar Company. Irrigation for the Waimānalo cane lands was developed from three sources: springs and water tunnels in neighboring Maunawili Valley; Kawainui Swamp in Kailua; and a swampy area near the mouth of Waimānalo Stream, known as the Waimānalo Lagoon . . . Water from these sources was transported to the Waimānalo cane lands via the Kailua Ditch, Maunawili Ditch, and the Pump Ditch, respectively.

The Waimanalo Sugar Company continued operations into the 1940s. However, facing rising operational costs and diminishing returns, the Waimanalo Sugar Company ceased operations in 1947.

2.2.1 Historic Maps and Aerial Images including the Project Area

Figure 11, a portion of 1881 map of Oʻahu, shows the entire ahupuaʻa as Crown land consisting of approximately 8,000 acres. As described above, dozens of hoa ʻāina (or kuleana) parcels, or LCAs, were awarded in the northwestern portion of the ahupuaʻa, near its permanent streams and most extensive floodplain. These kuleana parcels are not depicted on this map, but the general area is illustrated as a network of branching streams and floodplain northwest of the current project area. Also shown on this map is the name J. Cummings, son of Thomas Cummins (the original lessee of most of Waimānalo starting around 1850 for ranching), who in the later 1800s helped convert these lands to commercial sugar cane.

Figure 12, a portion of 1902 land-use map of Oʻahu, depicts extensive sugar-cane infrastructure throughout much of the ahupuaʻa, including a railway along the general right-of-way for today's Hīhīmanu Street leading down to landing (wharf) that was once located just south of today's "beach lots" and close to the current project area. A number of structures, such as the mill and residence of John Cummings, are depicted near the center of town. Railroad treacks are depicted from the center of the ahupuaʻa to the landing.

Figure 13, a portion of 1914 U.S. military map, shows some of the main infrastructure as previous maps (e.g., railroad tracks, wharf/landing). Another relevant observation is the placement of a trail or wagon road paralleling the railroad tracks as they pass by the current project area. This trail bypasses the area of today's "beach lots," which are depicted as a network of sand dunes. This sand dune network includes the current project area. Such sand dunes were traditionally used for burial of commoners.

Figure 14, a portion of Hawaii Territory Plat map (#2045), shows the platting of the "beach lots" as well as other infrastructure changes. The main trail or road from the north is depicted as straightened and formalized by this time.

Figure 15, a portion of 1928 topographic map, shows the railroad no longer terminating at the landing. A few scattered residential structures are depicted in the "beach lots." The Kalanianaʻole Highway, which was constructed in the 1920s, is depicted in its current location.

Figure 16, a portion of 1943 topographic map, shows much more residential development in the area. Sugar cane operations continued into the 1940s, and some of its infrastructure (e.g., ditches, reservoir) is depicted on this map.

Figure 17, a portion of 1968 topographic map, shows the project area following the end of commercial sugar cane in Waimānalo. The landing is depicted as in "ruins," the railroad tracks have been removed, and the elementary school has been built across the highway from the project area.

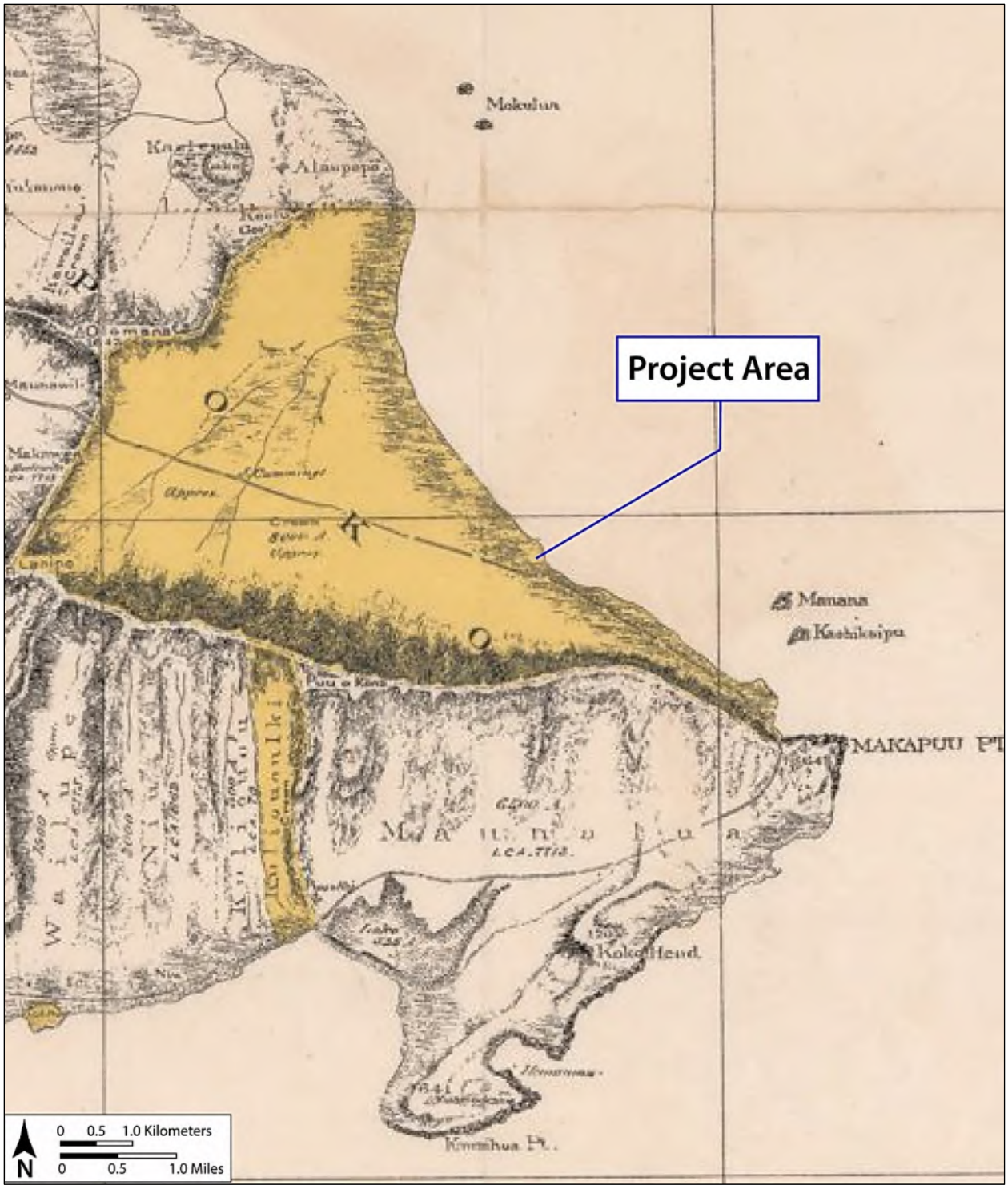

Figure 11. Portion of 1881 Covington map showing project area location (Registered Map 1381) (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

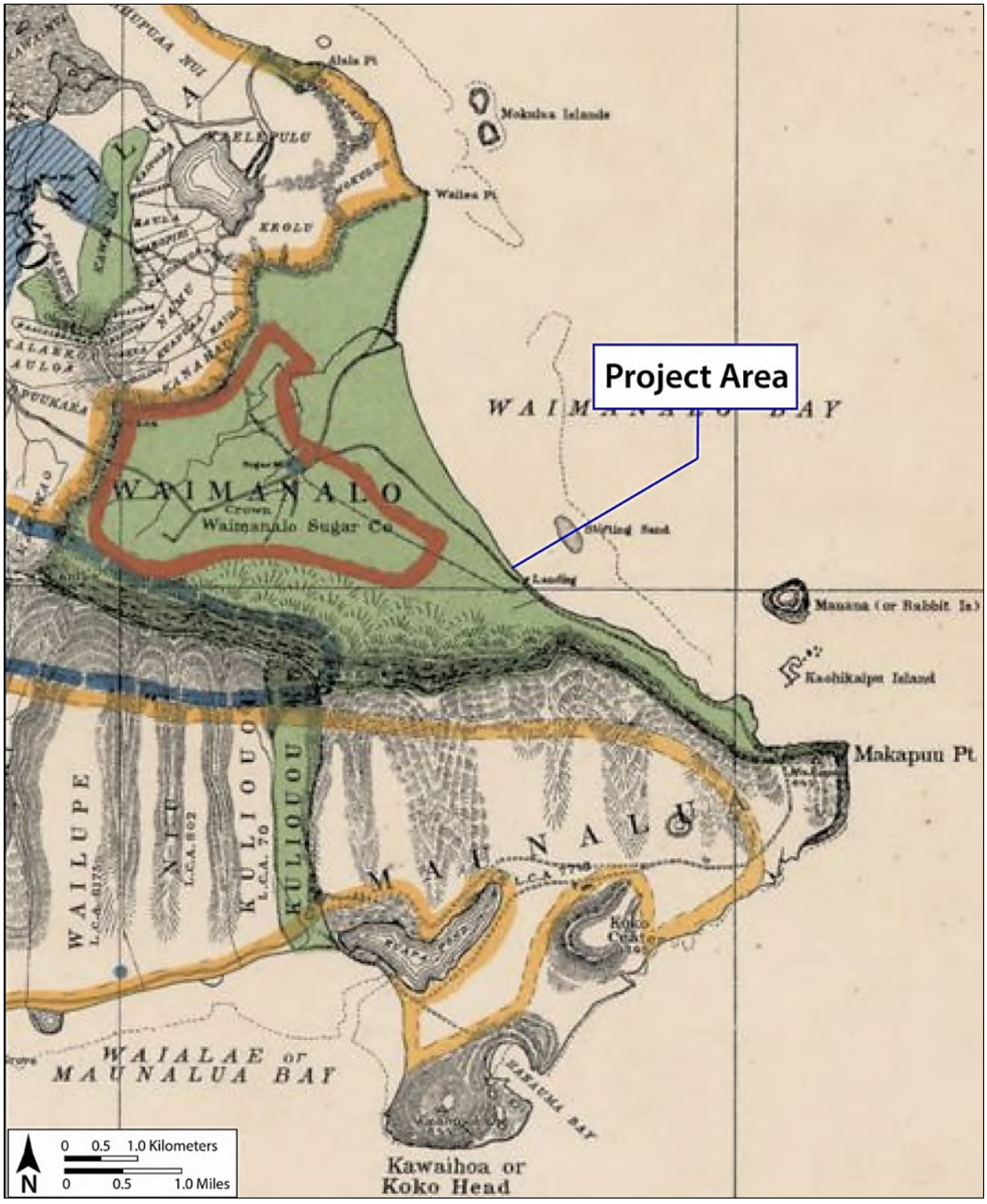

Figure 12. Portion of 1902 Wall/Donn map (Registered Map 2374) with project area location (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

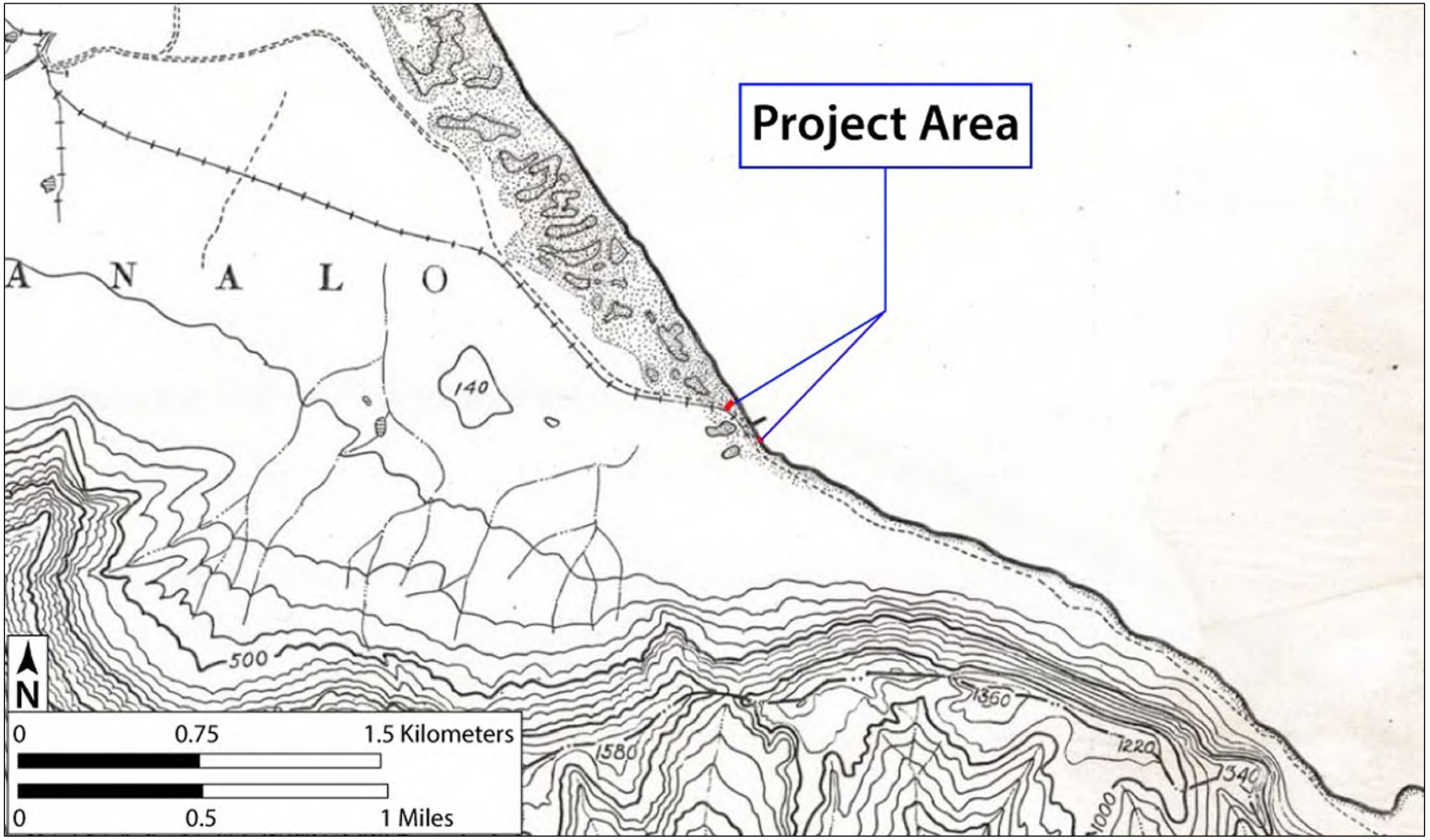

Figure 13. Portion of 1914 U.S. military topographic map (Diamond Head to Makapuu Point) showing project-area location (base map source: University of Hawai‘i-Mānoa’s digital maps, http://magis. manoa.hawaii.edu/ maps/index.html)

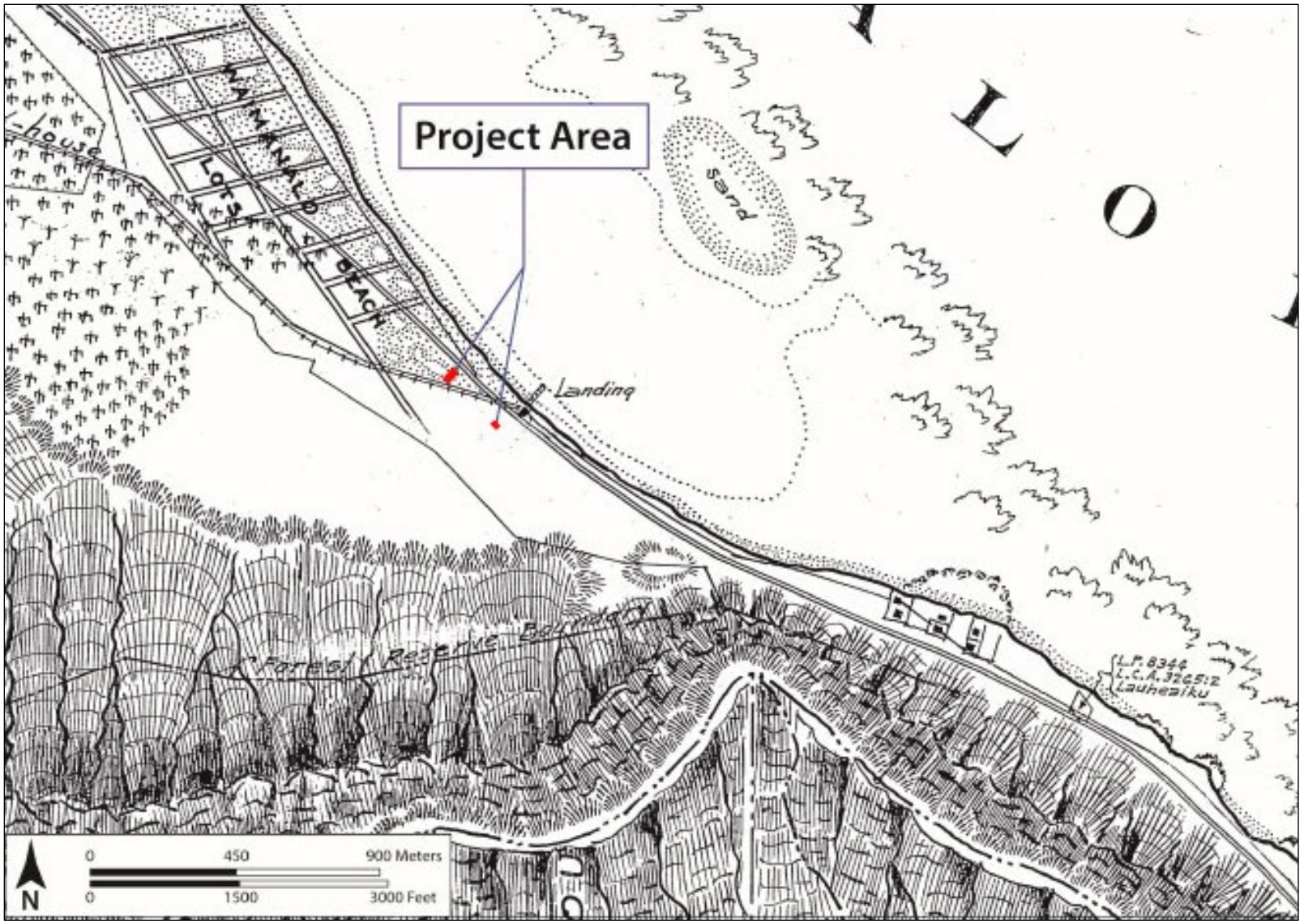

Figure 14. Portion of 1916 HTS (Hawaii Territory Plat) map 2045 (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

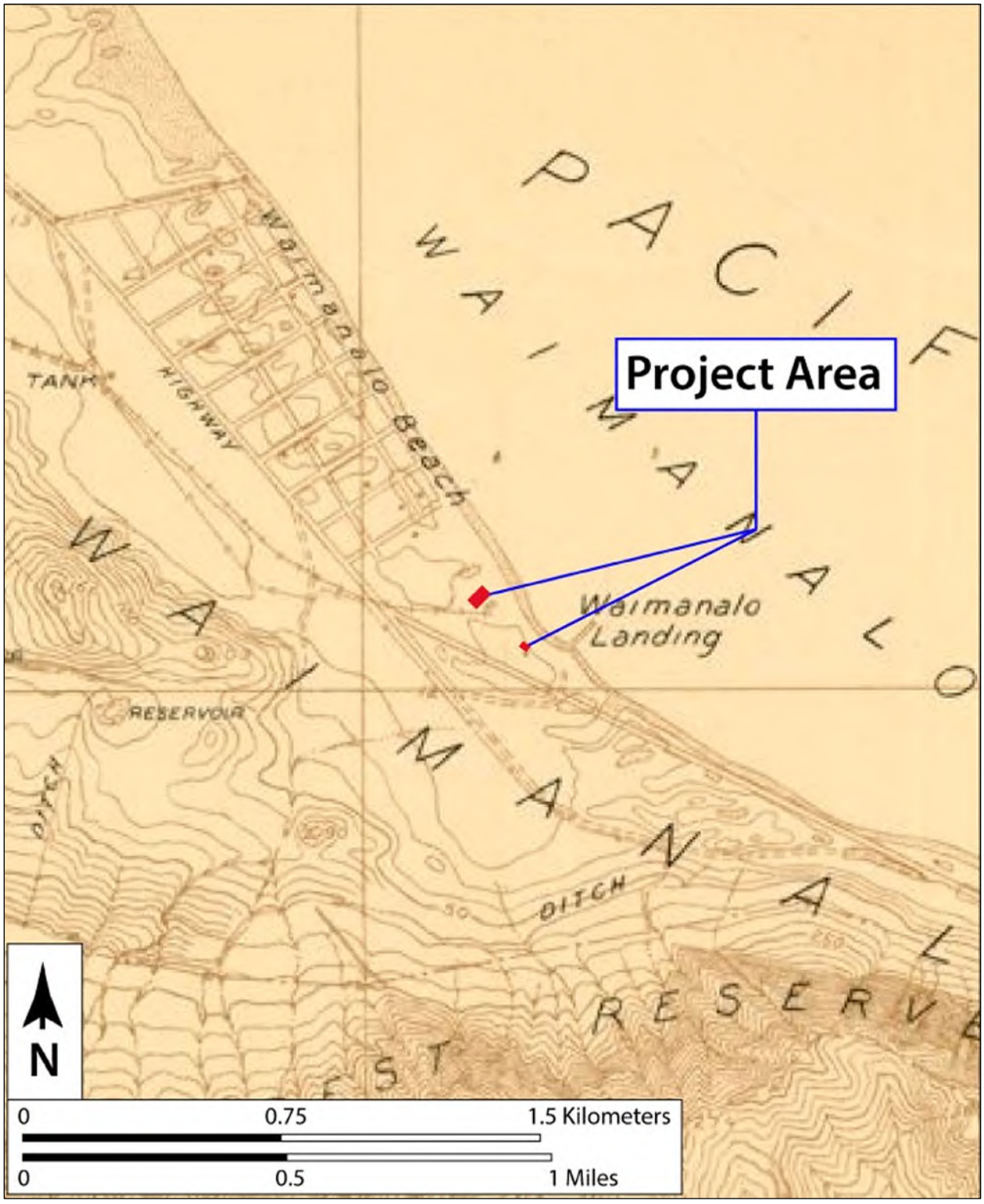

Figure 15. Portion of 1928 USGS topographic map (Koko Head quadrangle) showing project area location (base map source: University of Hawai‘i-Mānoa’s digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

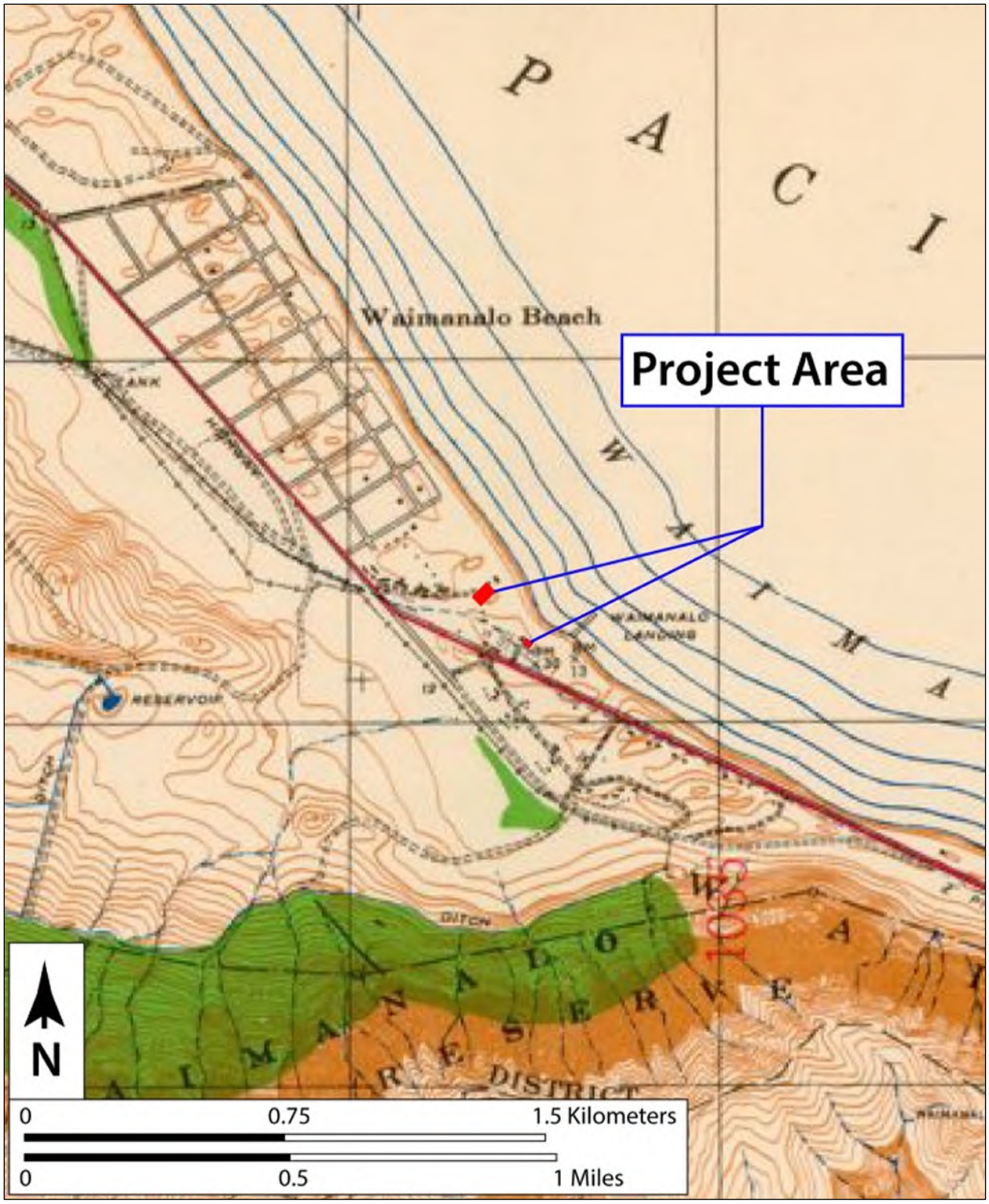

Figure 16. Portion of 1943 USGS topographic map (Koko Head quadrangle) showing project area location (base map source: University of Hawai‘i-Mānoa’s digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

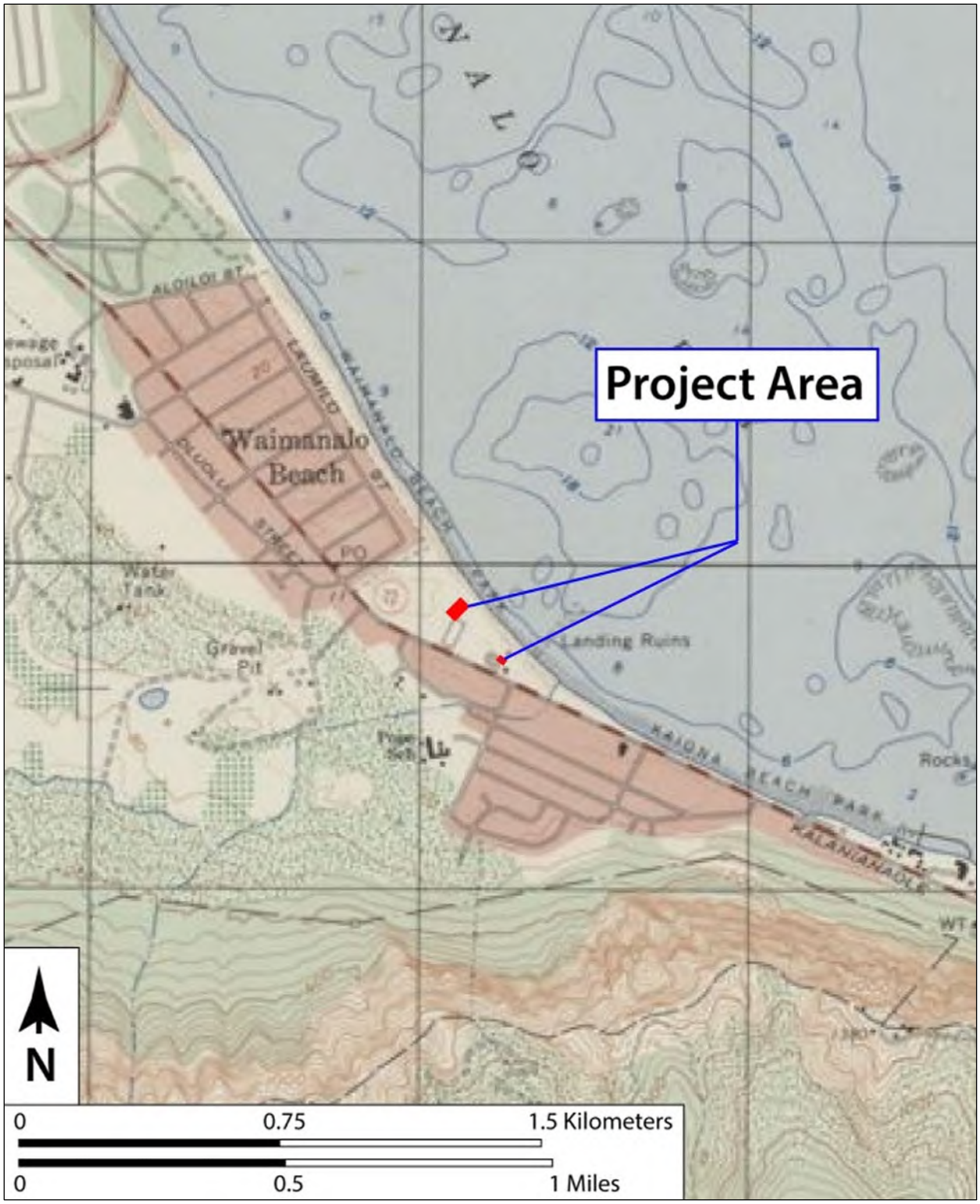

Figure 17. Portion of 1968 USGS topographic map (Koko Head quadrangle) showing project area location (base map source: University of Hawai‘i-Mānoa’s digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

Section 3 Previous Archaeological Studies

In this section, we summarize relevant previous archaeological studies in order to reconstruct human use and modification of the land in and near the project area. The main purpose of presenting this information is to develop predictive data about the types and distribution of archaeological historic properties and their component features we expected to encounter during the field inspection; and to assist interpretation of any new findings.

Table 1 and Figure 18 and Figure 19 summarize and depict the location and results of previous studies in and near the project area.

3.1 Overview

As summarized in the previous section ("Cultural and Historical Context"), Waimānalo is unusually blessed with a wide variety of wahi pana (legendary places), and other natural and cultural resources—including archaeological sites. Collectively, these resources reflect a classic Hawaiian ahupua'a with abundant upland water sources and other resources, expansive lo'i kalo (irrigated taro) lands built around its main stream, several heiau and shrines, an excellent canoe landing bay, and so on.

From an archaeological perspective, Waimānalo is perhaps best known for evidence uncovered in subsurface contexts at Bellows Air Force Station (BAFS), collected since at least the early 1970s, of very early Hawaiian settlement (the exact dates of which have been under review and debate for some time) and extensive cultural deposits with Hawaiian artifacts and features. For example, State Inventory of Historic Places (SIHP) # 50-80-15-04853 is a 42.5-ha (105.0-acre) discontinuous, stratified, subsurface cultural layer containing abundant traditional Hawaiian artifacts (e.g., adzes, fishhooks, 'ulu maika, hammerstones, coral abraders, and basalt flakes) and features (e.g., fire features, post molds, midden and artifact concentrations), as well as one human burial. A subsurface feature from this site (either an earth oven or fire pit) yielded the earliest radiocarbon date in all of the Hawaiian Islands, A.D. 380–660 (Streck and Watanabe 1988; Spriggs and Anderson 1993), although this specific date has been questioned by some archaeologists. Regardless, it is clear that SIHP # 04853 is probably one of the oldest cultural deposits in the islands. Numerous other burials have also been documented in BAFS.

A comprehensive review of archaeological work completed at BAFS, which number at least sixty-eight (68) reports, is not relevant to the current study. The current project area is about a mile southeast of BAFS. For the interested reader, numerous previous studies include reviews of the BAFS evidence (e.g., Pearson et al. 1971; Nakama and Tuggle 1975; Tuggle 1975a,b; Streck and Watanabe 1988; Rolett 1989, 1992; Shun 1992; Peterson et al. 2005; Jourdane et al. 2006; Major and Dye 2006; McElroy et al. 2006).

Coastal and near-coastal Waimānalo, in general, is characterized by an extensive natural Jaucas sand berm system; many archaeological studies in these sediments have documented pre-Contact and early historic-period burials (in disturbed as well as primary context) and subsurface cultural layers containing habitation features such as hearths, midden deposits and traditional artifacts (see Figure 19 and Table 1). The project area is within this general, sand-berm physiographic setting.

3.2 Results Immediately Adjacent to the Project Area

The most relevant previous archaeological find to the current project is Simonson et al.'s (2008) archaeological inventory survey (AIS) in support of wastewater system improvements next to the eastern comfort station portion of the current project area. A subsurface cultural layer in Jaucas sand designated SIHP # 50-80-15-07042 was identified; it contained midden (marine shell, sea urchin, non-human [fish and mammal] bone and coral), fire-cracked rock, charcoal deposits, lithic debitage [basalt flakes]) and a few formal tools or possible tools (e.g., adze fragments and flakes, fragment of a possible stone abrader or ground-stone tool) and a utilized sea urchin spine (abrader or file). Two radiocarbon dates obtained from Simonson et al.'s (2008) Trench 3 are consistent with a solid pre-Contact age for this site (i.e., from the fifteenth to seventeenth century A.D.) (ibid.:55, 56).

Figure 20, an annotated graphic using a base map from Simonson et al. (2008:39), shows the five locations where subsurface testing was conducted in relation to the eastern comfort station of the current project area. This graphic demonstrates the subsurface cultural layer (SIHP # 07042) was identified in each of the five excavations, suggesting the layer extends laterally to an unknown distance, including into (or under) the eastern comfort station. It is also relevant to state, although Simonson et al. (2008) do not make this observation, that there are at least two and perhaps three different cultural layers (not one) collectively identified as SIHP # 07042. A close examination of their excavation documentation shows the upper surface of the uppermost exposure of SIHP # 07042 varies from about 105–160 centimeters below ground surface (cmbs). As discussed in the Conclusion below, this documented depth of the subsurface layer has implications for the subject Project Effect and Mitigation.

3.3 Existing Structures including Comfort Stations

According to a Historic American Buildings Survey (HABS) of the Waimānalo Beach Park Pavilion by Ruzicka (2018), the western comfort station next to (makai of) the pavilion was built in 1960, whereas the pavilion itself was completed in 1961. Thus, the western comfort station may be eligible for listing on the Hawai'i Register of Historic Places (HRHP). Information on the date of construction of the eastern comfort station has not been located.

3.4 Results in the Vicinity of the Project Area

To the best of our knowledge, no previous archaeological studies or archaeological testing (subsurface excavation) have been conducted in the current project area. However, several archaeological studies have been conducted immediately adjacent to the project area (McGuire and Hammatt 2000) or within about 150 meters (492 feet) (i.e., Cleghorn and Hamano 2003; McElroy 2008; Simonson et al. 2008; Hazlett and Hammatt 2010).

The following summaries of the results of nearby projects are most relevant:

1. Burial sites and/or discoveries of human skeletal remains have been recorded in close proximity to the project area: SIHP # 50-80-15-05953 (Perzinski et al. 2002) consisted of three human burials and a cultural layer in subsurface context in a Jaucas sand deposit just west of the current project area; McMahon (1990) reported on the inadvertent discovery of a human burial (SIHP # 04118) at a private residence in the beach lots to the northwest;

2. Many other burial sites have been identified further down Kalaniana‘ole Highway (towards Makapu‘u): Medical Examiner (1989a, b) reports from the makai side of the highway at Kaiona Beach Park described two (eroding) subsurface burials (SIHP #s 03763 and 04007); Jones and Hammatt (2008) described a subsurface burial site (SIHP # 06752) containing at least four individuals at Kaiona Beach Park; more recently, Crowell et al. (2018) discovered a subsurface burial site (SIHP # 08749) at a private residence along the shoreline (just mauka of Pahonu Pond);
3. Numerous subsurface deposits representing traditional Hawaiian cultural layers have been documented in subsurface context including: SIHP # 07042, adjacent to the eastern comfort station portion of the current project area (Simonson et al. 2008—see discussion above), SIHP # 06696, along Kalaniana‘ole Highway just southeast of the current project area (McElroy 2008), and SIHP # 05953 (Perzinski et al. 2002) to the west (this layer also contained burials, as noted in item #1 above); Cleghorn and Hamano (2003) recorded a subsurface site (SIHP # 06518) along the highway to the west that included a small charcoal pit (as well as a historic road bed); further southeast towards Makapu‘u, Crowell et al. (2018) documented a subsurface cultural layer with traditional Hawaiian material (SIHP # 08748);
4. On the north side of Waimānalo Beach Lots, a large area has been designated the Bellows Field Archaeological Area (SIHP # 00511).[2] A component site-feature, SIHP # 00512, consisting of a subsurface cultural deposit (with pre-Contact Hawaiian material) with some surface stones interpreted as probably from the historic period, is located in the extreme southeast corner of the Bellows Field Archaeological Area;
5. In the uplands mauka of the highway, SIHP # 04042, representing portions of the Waimanalo [Sugar Co.] Irrigation System (including three named, cross-slope ditches [Waimanalo, Kailua and Maunawili]) has been documented (Neller 1981; Tulchin and McDermott 2010; Dagher and Spear 2014);
6. Tulchin and McDermott’s (2010) reconnaissance survey[3] of a large area of uplands associated with the College of Tropical Agriculture & Human Resources’ (CTAHR) Waimānalo Research Station (University of Hawai‘i-Mānoa) identified a number of finds in addition to three sites that were known prior to their work (i.e., Pueo Heiau, SIHP # 01031; two clearing mounds built by plantation workers in the historic period, SIHP # 05876; and component features of SIHP # 04042 [historic-period ditch system]). The new finds, which are about a mile west of the current project area, were organized into nine (9) temporary sites designated CSH1 through CSH 9; some of these include large numbers of features (e.g., CSH 6 comprises at least 50 distinct features); some have been interpreted as pre-Contact (traditional-style) Hawaiian habitation, planting and water diversion/control structures, while others have been interpreted as historic-period (plantation-era) constructions.

[2] Site boundaries for the Bellows Field Archaeological Area, when originally established (1973 or 1974), have been shown over the years to be inaccurate. This large polygon boundary has generally been discarded in favor of more discrete sites #s and boundaries but is included in the current study for the sake of completeness. This archaeological area was apparently listed on the National Register of Historic Places in 1973, although some sources state it was 1974; in any case, the original paperwork has not been found (it is not included on the NPS website listing, nor can it be found at the SHPD).

[3] A formal archaeological inventory survey (AIS) may also have been completed, but efforts to confirm this, and to obtain the AIS report have been unsuccessful.

Table 1. Previous Archaeological Studies and Results in and near the Project Area

Reference	Type	Location	Results & Comments[2]
McAllister 1933	Island-wide survey	Island of O‘ahu	1 “McAllister site,” Pahonu Fishpond (383-A) identified about a mile south of the current project area along the shoreline
Sterling & Summers 1978	Island-wide compendium	Island of O‘ahu	Kini stone (Sterling & Summers’ site #21) identified just southeast of Pahonu fishponds, just mauka of the highway
Neller 1981	Photo documentation of sugar cane ditch system	Mauka lands inland from the coastline	Documented Waimānalo Irrigation System (SIHP # 04042)
Medical Examiner 1988a	BT	Kaiona Beach Park	Indeterminate (original reports not found), but presumably 1 or more burials or sets of human skeletal remains at each location
Medical Examiner 1988b			
McMahon 1990	BT	Private residence	Burial site (SIHP # 04118) inadvertently discovered
Dixon 1993	ARS	Multiple Board of Water Supply (BWS) locales	No significant findings
Hammatt et al. 1999	AIS	Unisyn Biowaste Technology Facility	No significant findings
U.H. Marine Option Program 1999	Underwater survey	Waimānalo Landing	Documented remnants of old machinery, pilings & loading-dock equipment
McGuire & Hammatt 2000	AM	Waimānalo Beach Park	No significant findings
Drolet & Sinoto 2001	AIS	BWS Waimānalo Well III, included linear corridor along Hihimanu St.	Identified (1) part of “Kailua Ditch” portion of Waimānalo Irrigation System (SIHP # 04042), (2) remnant earthen railroad berm & (3) 2 dry-stacked rock features (SIHP # 05876) interpreted as plantation-era sites
Perzinski et al 2001	AM	‘Olu‘olu St. and others	No significant findings
Sinoto 2001	Addendum AIS	Linear corridor	No significant findings
Perzinski et al 2002	AM	Elderly housing project mauka of Kalaniana‘ole Highway	Identified 3 human burials & a cultural layer (SIHP # 05939) in Jaucas sand deposit just west of current project area
Cleghorn & Hamano 2003	AM	Sandwich Isles Communications Rural Fiber Optic Ductlines Project	1 historic property identified: a small charcoal pit & historic road bed (SIHP # 06518)
Hammatt & Shideler 2006	ALRFI	Blanche Pope Elementary School campus	No significant findings
Runyon et al. 2008	AM		
Jones & Hammatt 2008	AM	Wastewater System & Utilities Upgrades at Kaiona Beach Park	2 historic properties identified: SIHP #s 06751 (2 cultural layers) & 06752 (burial site w. MNI of 4)

Reference	Type	Location	Results & Comments[2]
McElroy 2008	AM	Kalaniana‘ole Hwy ROW	8 isolated artifacts (pre- & post-Contact) throughout project corridor; 1 historic property identified: a disturbed cultural layer (SIHP # 06696) interpreted as a temporary use marine exploitation site
Simonson et al. 2008	AIS	Waimānalo Beach Park reconstruction of wastewater system	1 historic property identified: SIHP # 07042 (pre-Contact subsurface cultural layer); **this subsurface layer is immediately adjacent to the eastern comfort station portion of the current project area**
Hazlett & Hammatt 2010	AM	Waimānalo Beach Park reconstruction of wastewater system	Sparse cultural material observed including disarticulated animal bone, a soda bottle & 2 pit features
McElroy 2010	AM	Fiber optic installation - portions of Hīhīmanu, Kaka‘ina, Waikupunaha & Mekia streets	No significant findings
Tulchin & McDermott 2010	ALRFI	CTAHR Waimānalo Research Station (University of Hawai‘i-Mānoa)	12 historic properties identified; previously-identified sites included SIHP # 01031 (Pueo Heiau), SIHP # 05876 (2 plantation-era features) & portions of Waimānalo Irrigation System (SIHP # 04042); newly-identified sites included historic-period water control features, mounds & terraces of indeterminate age & pre-Contact Hawaiian habitation (or possible ceremonial structure) & agricultural terraces
Dagher & Spear 2014	AIS	Portion of “Kailua Ditch” of Waimānalo Irrigation System (SIHP # 04042)	No newly-identified features
Crowell et al. 2018	AIS	Private lot along the shoreline south of the current project area	3 historic properties identified: SIHP #s 08747 (structural remnants of former Anderson Estate-Pāhonu), 08748 (pre- to late post-Contact subsurface cultural layer) & 08749 (human burial site)
Monahan 2018	Cell tower assessment	Adjacent to Hihimanu St.	No significant findings

[1] Abbreviations: AIS = archaeological inventory survey, ALRFI = archaeological literature review and field inspection, AM = archaeological monitoring, ARS = archaeological reconnaissance survey, BT = burial treatment, MNI = minimum number of individuals.

[2] SIHP = State Inventory of Historic Places; all SIHP #s in this table are formally preceded by “50-80-15-”.

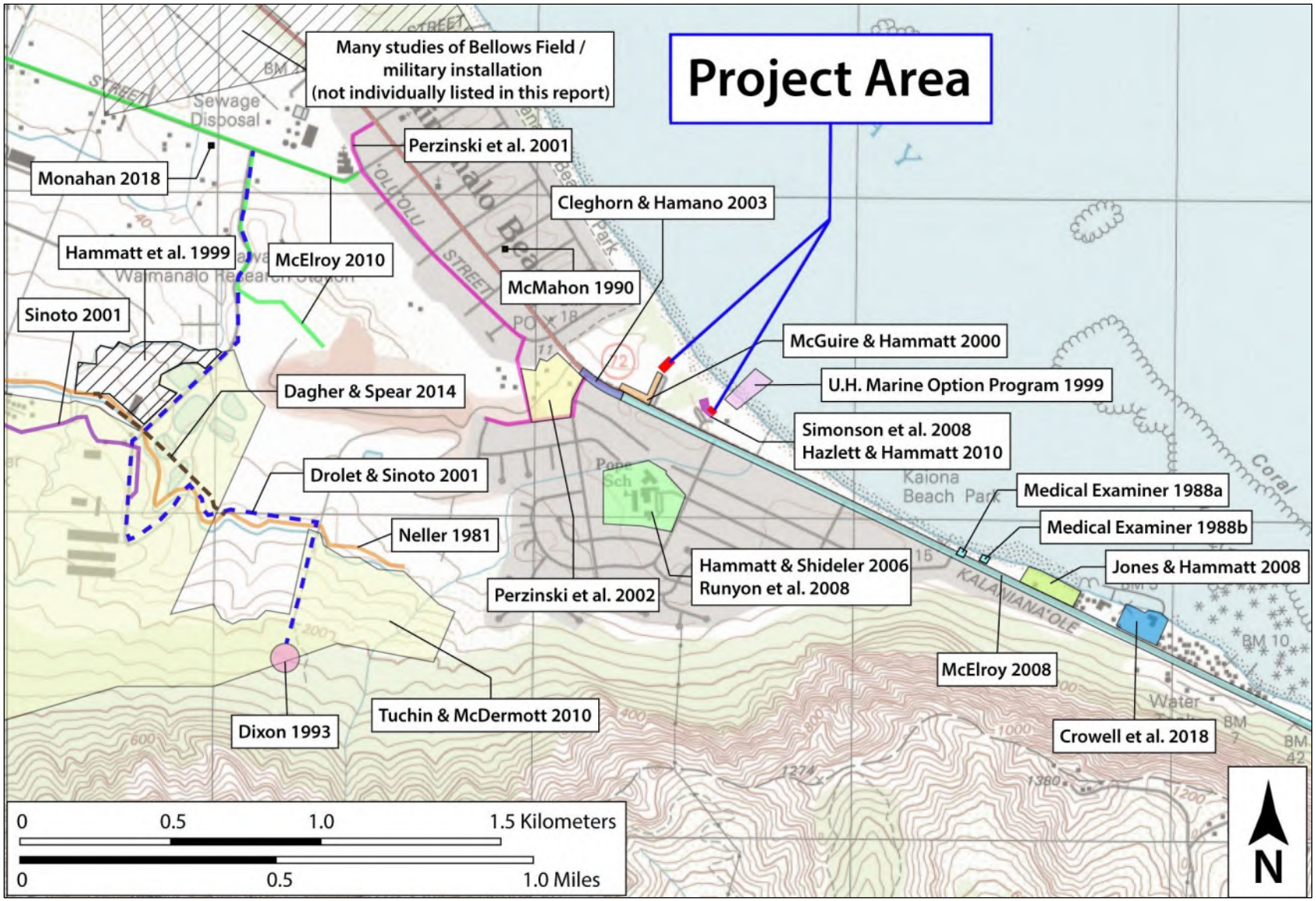

Figure 18. Previous archaeological studies near the project area (see table and text above for details)

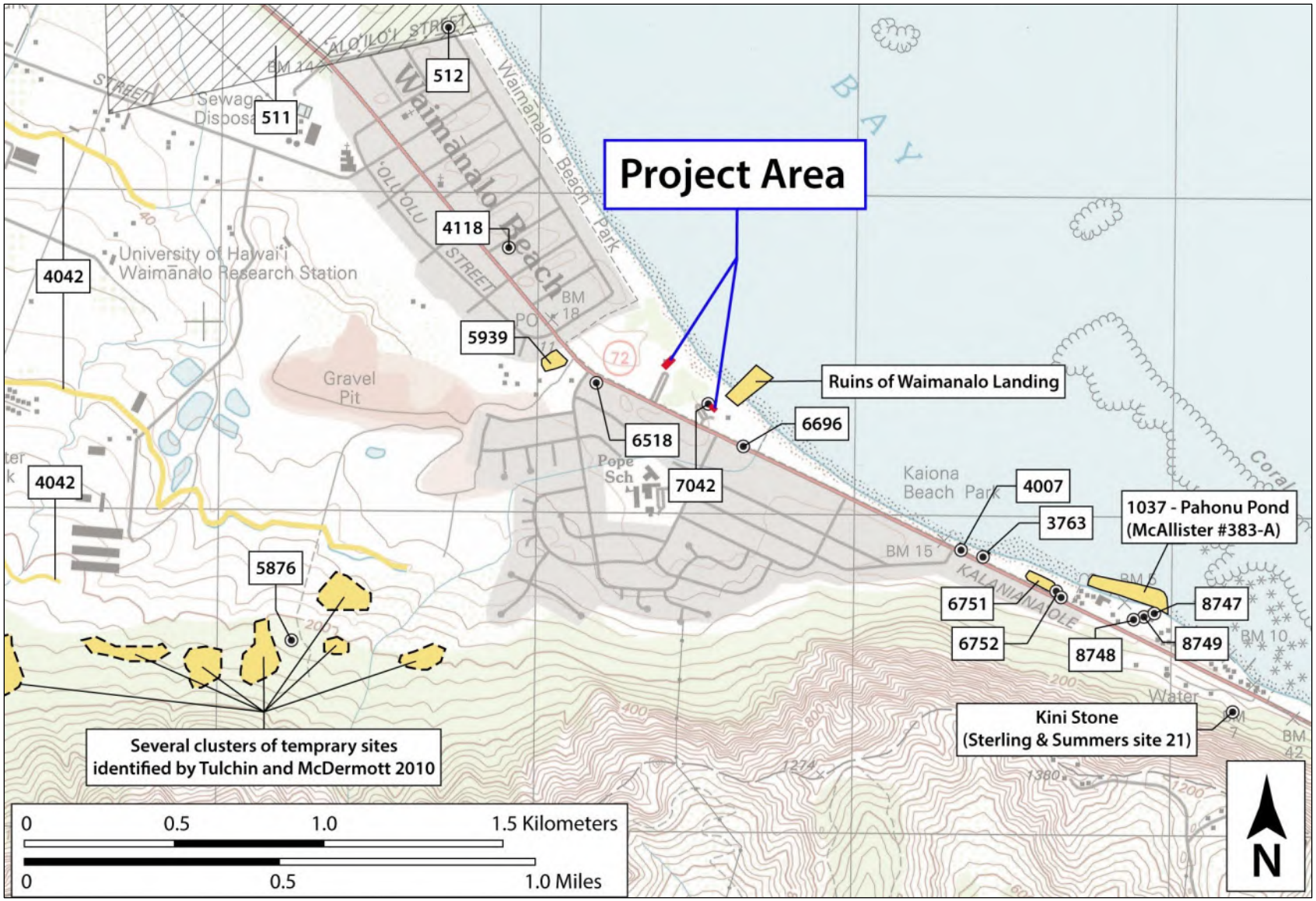

Figure 19. Known archaeological sites and wahi pana (legendary places) near the project area (see table and text above for details)

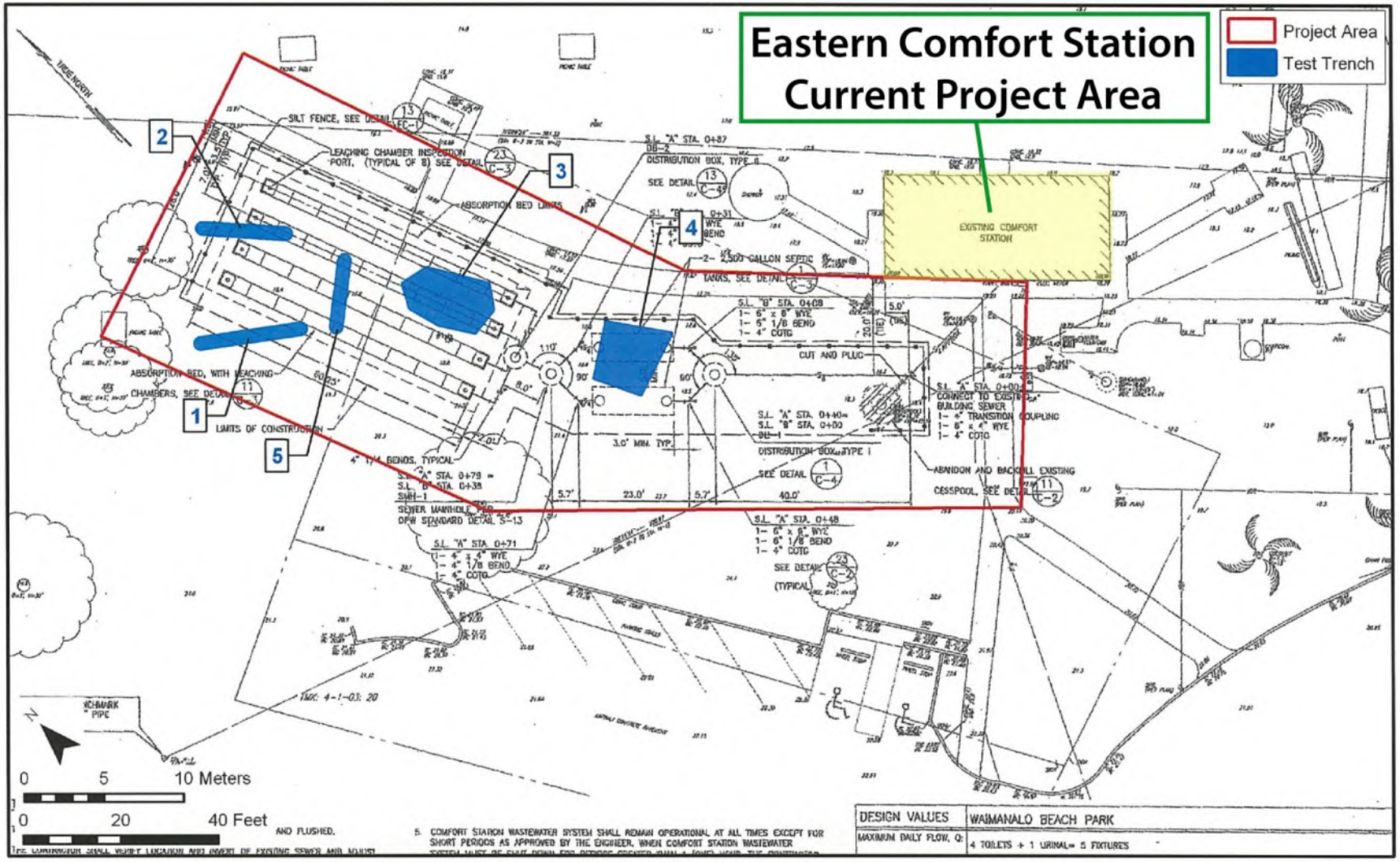

Figure 20. Annotated base map from Simonson et al. (2008:39) showing location of eastern comfort station portion of the current project area (yellow rectangle) in relation to trenches (blue polygons) that yielded exposure of SIHP # 50-80-15-07042

Section 4 Results of Field Inspection

Fieldwork for this project was conducted on March 27, 2023 and January 15, 2024, by Dodge Watson, B.A., under the supervision of Christopher M. Monahan, Ph.D. (principal investigator). Fieldwork required approximately 4.0 hours to complete. Fieldwork for this project was performed under the archaeological permit number 23-23 issued to Honua Consulting by the SHPD/DLNR in accordance with HAR Chapter 13-282.

4.1 Methodology

The field inspection consisted of a 100% pedestrian survey of the project area. The main objective was to identify any potential historic properties (or their component features) such as rock walls, basalt curbs, other rock work, foundations or footings, or other historic-age features typically found on O‘ahu.[4]

Field notes and photographs of the project area (see Appendix) were recorded. A detailed photo log (captions) was also created. Figure 21 shows the location of all project-area photographs. All data are stored and backed-up in Honua’s database.

4.2 Survey Results

Fieldwork resulted in the following main findings:

1. Potential architectural historic properties in the project area include the existing concrete pad/footing (built circa 1961) of the now razed pavilion, the western comfort station (built 1960) and the eastern comfort station (construction date unknown).
2. No other historic properties are located at or above the ground surface in the project area.

[4] Under the laws and rules of historic preservation in Hawai‘i, objects, sites or other physical remains older than 50 years ago may qualify as “significant historic properties.” Therefore, the current “cut off” date is now 1973.

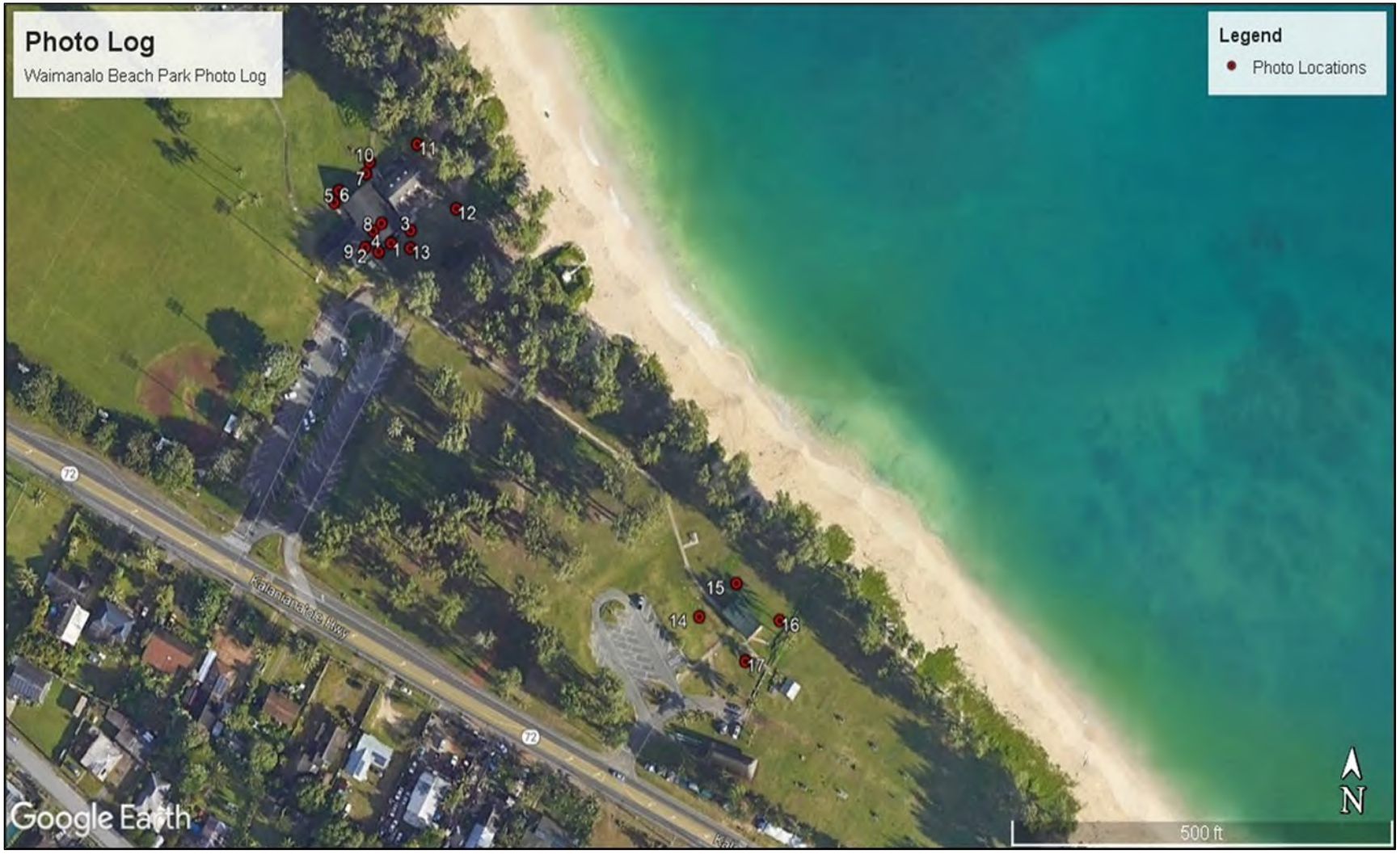

Figure 21. Photo Key showing the locations of all project-area photographs (which are provided in the Appendix)

Section 5 Conclusion

This report was completed on behalf of Planning Solutions, Inc., in support of its Waimānalo Beach Park Pavilion Replacement project, Waimānalo Ahupua‘a, Ko‘olaupoko District, Island of O‘ahu, Hawai‘i. The project proponent is the Department of Design and Construction (DDC), on behalf of the Department of Parks and Recreation (DPR), City and County of Honolulu. The project area is within TMK (1) 4-1-003:040. The landowner is Hawaiian Home Lands. The project area is part of Waimānalo Beach Park situated between Kalaniana‘ole Highway and the seashore, south of the residential area known as Waimānalo Beach Lots and just across the highway from Blanche Pope Elementary School. The new pavilion will replace a former pavilion (removed in 2019) that honored the great Hawaiian musician, Gabby Pahinui, who lived in Waimānalo for many years.

The objectives of this Archaeological Literature Review and Field Inspection (ALRFI) are the following: (1) documentation and description of the parcel's land-use history in the context of both its traditional Hawaiian character as well as its historic-period changes; (2) identification of any historic properties or component features in the project area; and (3) providing information relevant to the possibility of encountering historically-significant cultural deposits in subsurface context during future construction.

This ALRFI is not an archaeological inventory survey (AIS), and it is not intended for formal review by the State Historic Preservation Division (SHPD). It may be used, however, to support the project proponent's consultation with the SHPD in compliance with Hawai‘i Revised Statutes (HRS) Chapter 6E and Hawai‘i Administrative Rules (HAR) Chapter 13-275.

The proposed project involves the following scope of work at the pavilion and two comfort stations (i.e., bathrooms), the western comfort station (adjacent to the pavilion) and the eastern comfort station:

- The former pavilion, built in 1961, was dedicated in memory of Gabby "Pops" Pahinui; it became dilapidated and was removed in 2019 due to safety concerns. The proposed pavilion would be similar to the former pavilion. It would be in the same place (roughly 170 feet from the shoreline), have a similar size and height, and use the existing foundation and concrete slab. Modern materials would be used to improve longevity and functionality;
- There are no plans to conduct subsurface excavation (construction digging) for the proposed pavilion rebuild;
- The two existing comfort stations (western and eastern) will be upgraded but will use the existing septic and leach field systems;
- Ground disturbance (construction excavation) may be needed at the comfort stations but will be minimized by confining it, as much as possible, to areas of previous ground disturbance.

As described in this report, archival research and fieldwork demonstrate several relevant findings: (1) to the best of our knowledge, the project area has not previously been subject to a formal archaeological assessment or archaeological inventory survey (AIS); (2) previous archaeological work in the vicinity has yielded multiple traditional Hawaiian sites in subsurface context, including human burials (e.g., State Inventory of Historic Places [SIHP] #s 50-80-15-05953 and -04118) and cultural layers (e.g., SIHP # 50-80-15-07042, -06696 and -05953);

numerous other, similar findings have been made further down along Kalaniana‘ole Highway towards Makapu‘u; (3) Simonson et al.’s (2008) in support of wastewater system improvements next to the eastern comfort station portion of the current project area identified a subsurface cultural layer (SIHP # 50-80-15-07042) with pre-Contact radiocarbon dates and traditional Hawaiian artifacts; (4) like the rest of shoreline in Waimānalo, the project area is located in Jaucas sand and Beaches deposits, which are known to contain traditional Hawaiian sites in subsurface context; and (5) potential architectural historic properties in the project area include the existing concrete pad/footing (built circa 1961) of the now razed pavilion, the western comfort station (built 1960) and the eastern comfort station (construction date unknown).

5.1 Recommendations

Based on all available evidence, our recommendations are as follows:

1. The SHPD-Architecture Branch should be consulted regarding the historic significance of the existing concrete pad/footing (built circa 1961) of the now razed pavilion, the western comfort station (built 1960) and the eastern comfort station (construction date unknown).
2. The SHPD-Archaeology Branch should be consulted regarding the location and depth of proposed subsurface excavation (i.e., construction digging) needed to renovate the western and eastern comfort stations; previous archaeological research adjacent to the eastern comfort station, in particular, has demonstrated the existence of a subsurface cultural layer (SIHP # 50-80-15-07042) with pre-Contact radiocarbon dates and traditional Hawaiian artifacts; the uppermost portion of this site is about 105–160 centimeters below ground surface.

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APPENDIX – Project Area Photographs

The locations of the nine (9) photographs of the project area in this appendix are shown in the Photo Key (see Figure 21) in the main body of the report.

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

Photo 17

Appendix F. Cultural Impact Assessment

Cultural Impact Assessment for the Proposed Waimānalo Beach Park Project
Tax Map Key (TMK) [1] 4-1-003:040, Waimānalo, Koʻolaupoko, Oʻahu

Prepared for

CITY AND COUNTY OF HONOLULU
STATE OF HAWAII

PLANNING SOLUTIONS

Prepared by

HONUA CONSULTING

January 2024

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Acknowledgement

The authors would like to thank the area practitioners, kūpuna, and the interviewees for their assistance. We also like to add a special mahalo to the Pahinui family for their time and assistance in this assessment and for their extraordinary contributions to Hawaiian music and its perpetuation in Hawai‘i and around the world.

Note on Hawaiian Language Use

In keeping with other Hawaiian scholars, we do not italicize Hawaiian words. Hawaiian is both the native language of the pae‘āina of Hawai‘i and an official language of the State of Hawai‘i. Some authors will leave Hawaiian words italicized if part of a quote; we do not. In the narrative, we use diacritical markings to assist our readers, except in direct quotes, in which we keep the markings used in the original text. We provide translations contextually when appropriate. Unless otherwise noted, all translations are by Honua Consulting authors.

Front Cover Credit

Alamy
n.d. Image of Waimānalo Bay

Suggested Citation

Watson, T.K., Monahan, C., Sproat, M., McKown, E., Thetford, C., and Silva, J.
2023 *Cultural Impact Assessment of the Proposed Waimānalo Beach Project,* TMK: 1-4-1-009:279, Waimānalo, Ko‘olaupoko, O‘ahu*,* Prepared for Planning Solutions Hawaii on behalf of the City and County of Honolulu, Honua Consulting, Honolulu, Hawai‘i.

Executive Summary

At the request of Planning Solutions, Inc. on behalf of the City and County of Honolulu, Honua Consulting, LLC prepared a Cultural Impact Assessment (CIA) for the proposed Waimānalo Beach Park project, which includes rebuilding the pavilion and improvements to the recreation building and comfort station, Tax Map Key (TMK) (1) 4-1-003:040, in the ahupua‘a of Waimānalo, which are part of the moku of Ko‘olaupoko on O‘ahu.The project area, located on Tax Map Key (TMK) (1) 4-1-003:040, is positioned between Kalaniana‘ole Highway and the shoreline and is widely utilized by area residents. It is also the location of the annual Gabby Pahinui Waimānalo Kanikapila, which is a daylong annual celebration of Hawaiian music honoring Waimānalo resident and Hawaiian music legend, Gabby Pahinui.

Research in preparation of this report consisted of a thorough search of Hawaiian language documents, including but not limited to the Bishop Museum Mele Index and Bishop Museum archival documents, including the Hawaiian language archival caché. All Hawaiian language documents were reviewed by Hawaiian language experts to search for relevant information to include in the report. Documents considered relevant to this analysis are included herein, and translations are provided when appropriate to the discussion. Summaries of interviews and information on other oral testimonies are also provided herein.

The Waimānalo region is rich with both pre-contact and post-contact histories. The three-part *Ka Pa‘akai* Analysis described in Section 7.0 was applied to the research and data gathered for this study. Based on the information gathered and the assessment of the resources conducted, the project is not anticipated to have any adverse impacts on traditions, customs, or practices.

Practitioners expressed concerns about construction, but these potential impacts can be minimized through best management practices and use of cultural monitors. Based on the information gathered and the ethnographic data, the proposed project has the potential to have a beneficial impact to traditional or customary practices in the area, especially as related to mele and the important legacy of Waimānalo resident and Hawaiian music legend Gabby Pahinui. The potential for an adverse effect is negligible if construction best management practices and appropriate monitoring are implemented.

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Abbreviations and Acronyms

AIS: Archaeological Inventory Survey
BMP: Best Management Practice
CIA: Cultural Impact Assessment
DHHL: Department of Hawaiian Home Lands
EA: Environmental Assessment
ESP: Environmental Review Project, Office of Planning and Sustainable Development
HAR: Hawaii Administrative Rules
Honua: Honua Consulting, LLC
HRS: Hawaii Revised Statutes
ILK: Indigenous Local Knowledge
Ka Pa'akai: *Ka Pa'akai O Ka 'Āina v. Land Use Commission*, 94 Haw. 31 (2000)
LRFI: Literature Review and Field Investigation
NRHP: National Register of Historic Places
OEQC: Office of Environmental Quality and Control
ROI: Range of Influence
SHPD: State Historic Preservation Division
SIHP: State Inventory of Historic Places
SLH: Session Laws of Hawaii
TEK: Traditional Ecological Knowledge
TMK: Tax Map Key
USGS: U.S. Geological Survey

1.0 Project Description and Compliance

At the request of Planning Solutions, Inc. on behalf of the City and County of Honolulu, Honua Consulting, LLC prepared a Cultural Impact Assessment (CIA) for the proposed Waimānalo Beach Park project, which includes rebuilding the pavilion and improvements to the recreation building and comfort station, Tax Map Key (TMK) 1-4-1-003:040, in the ahupua‘a of Waimānalo, which are part of the moku of Ko‘olaupoko on O‘ahu.

1.1 Project Description and Proposed Action

The project area is within TMK (1) 4-1-003:040 (Figure 3). The landowner is the Department of Hawaiian Home Lands (DHHL). The project area is part of Waimānalo Beach Park situated between Kalaniana‘ole Highway and the seashore, south of the residential area known as Waimānalo Beach Lots and just across the highway from Blanche Pope Elementary School. The new pavilion will replace a former pavilion (removed in 2019) that honored the great Hawaiian musician, Gabby Pahinui, who lived in Waimānalo for many years.

The proposed project description and scope of work is as follows:

- The former pavilion, built in 1961, was dedicated in memory of Gabby “Pops” Pahinui; it became dilapidated and was removed in 2019 due to safety concerns. The proposed pavilion would be similar to the former pavilion. It would be in the same place (roughly 170 feet from the shoreline), have a similar size and height, and use the existing foundation and concrete slab. Modern materials would be used to improve longevity and functionality;
- There are no plans to conduct subsurface excavation (construction digging) for the proposed pavilion rebuild;
- The two existing comfort stations (western and eastern) will be upgraded but will use the existing septic and leach field systems;
- Ground disturbance (construction excavation) may be needed at the comfort stations but will be minimized by confining it, as much as possible, to areas of previous ground disturbance.

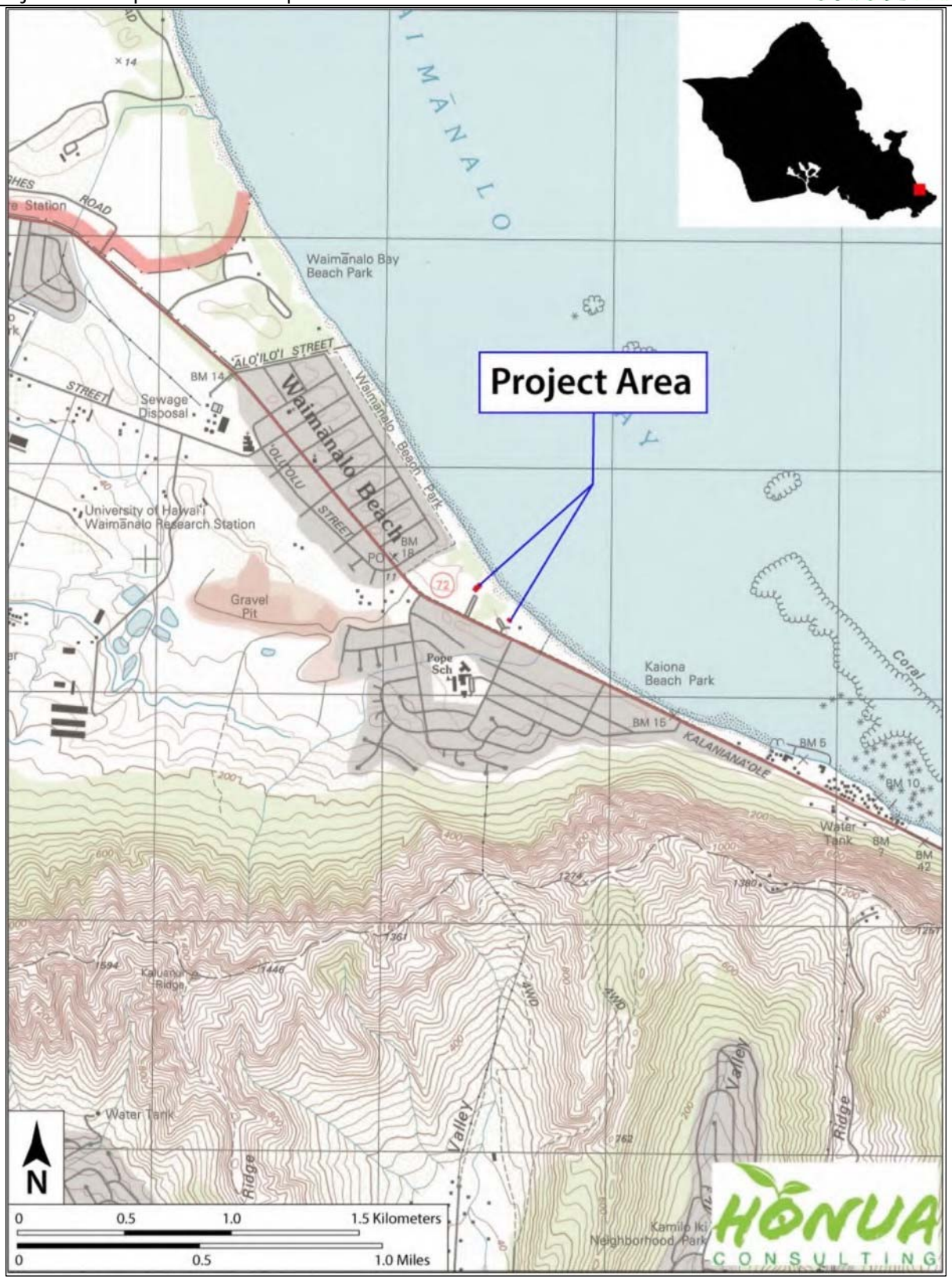

Figure 1. Portion of USGS topographic map (Koko Head [1998] quadrangle) showing project area (base map source: USGS online atll http://ngmdb. usgs.gov/topoview)

Figure 2. Aerial photograph showing location of project area (base image source: Google Earth accessed April 2023)

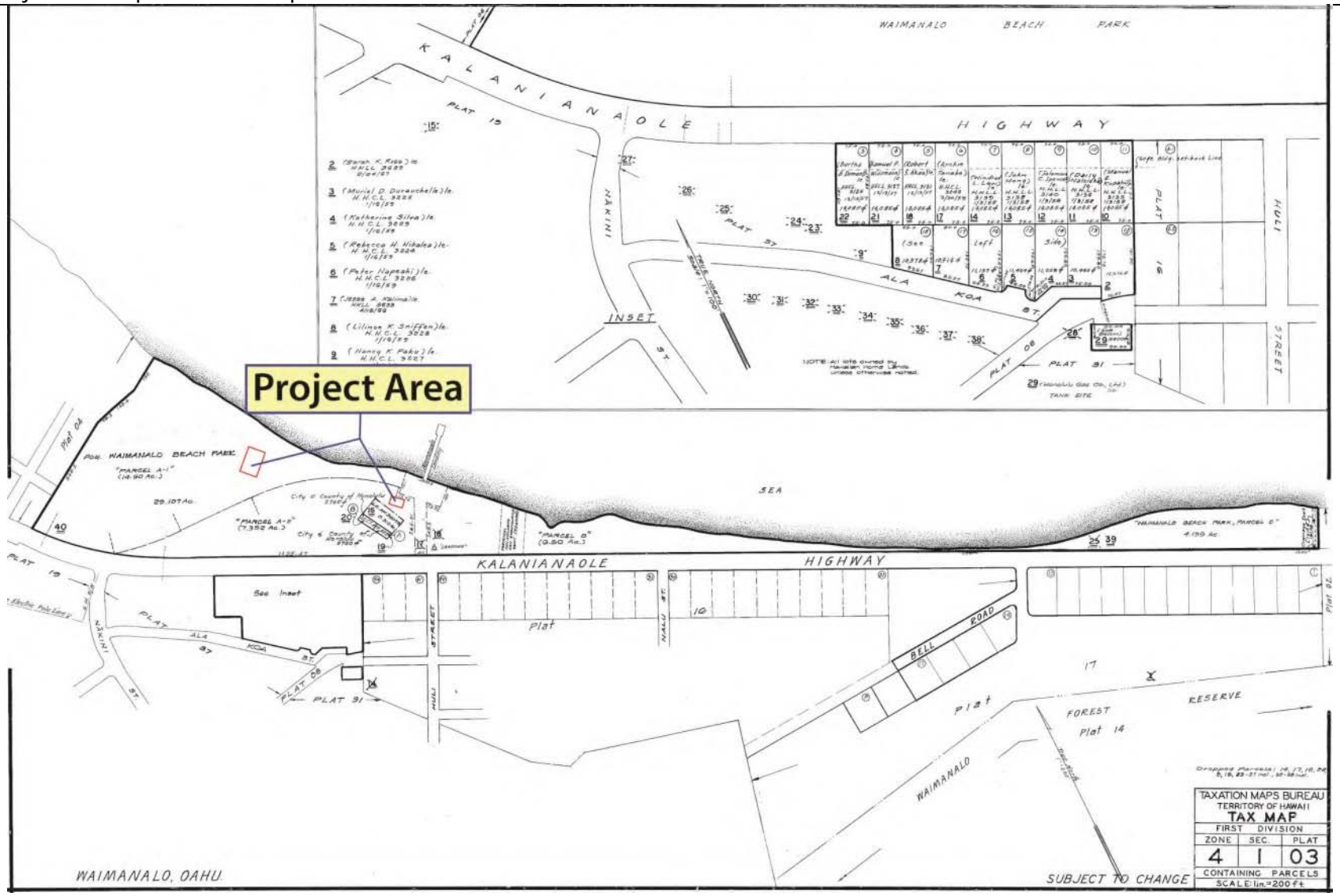

Figure 3. Tax Map Key (TMK): [1] 4-1-003 showing project area (base map source: Hawai'i TMK Service n.d.)

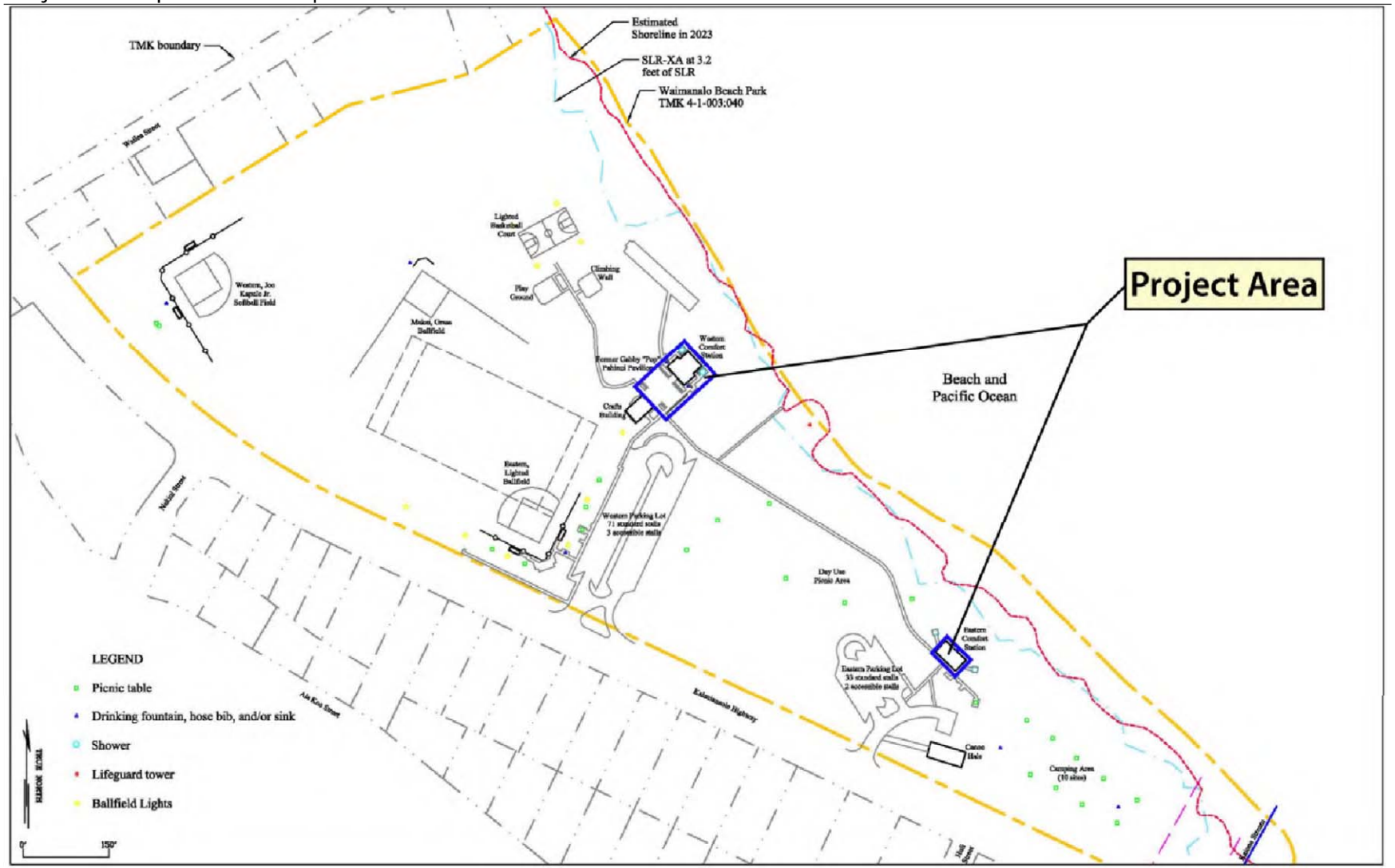

Figure 4. Project-area map showing location of pavilion and western comfort station (blue rectangle to the left) and eastern comfort station (blue rectangle to the right) (base image provided by client)

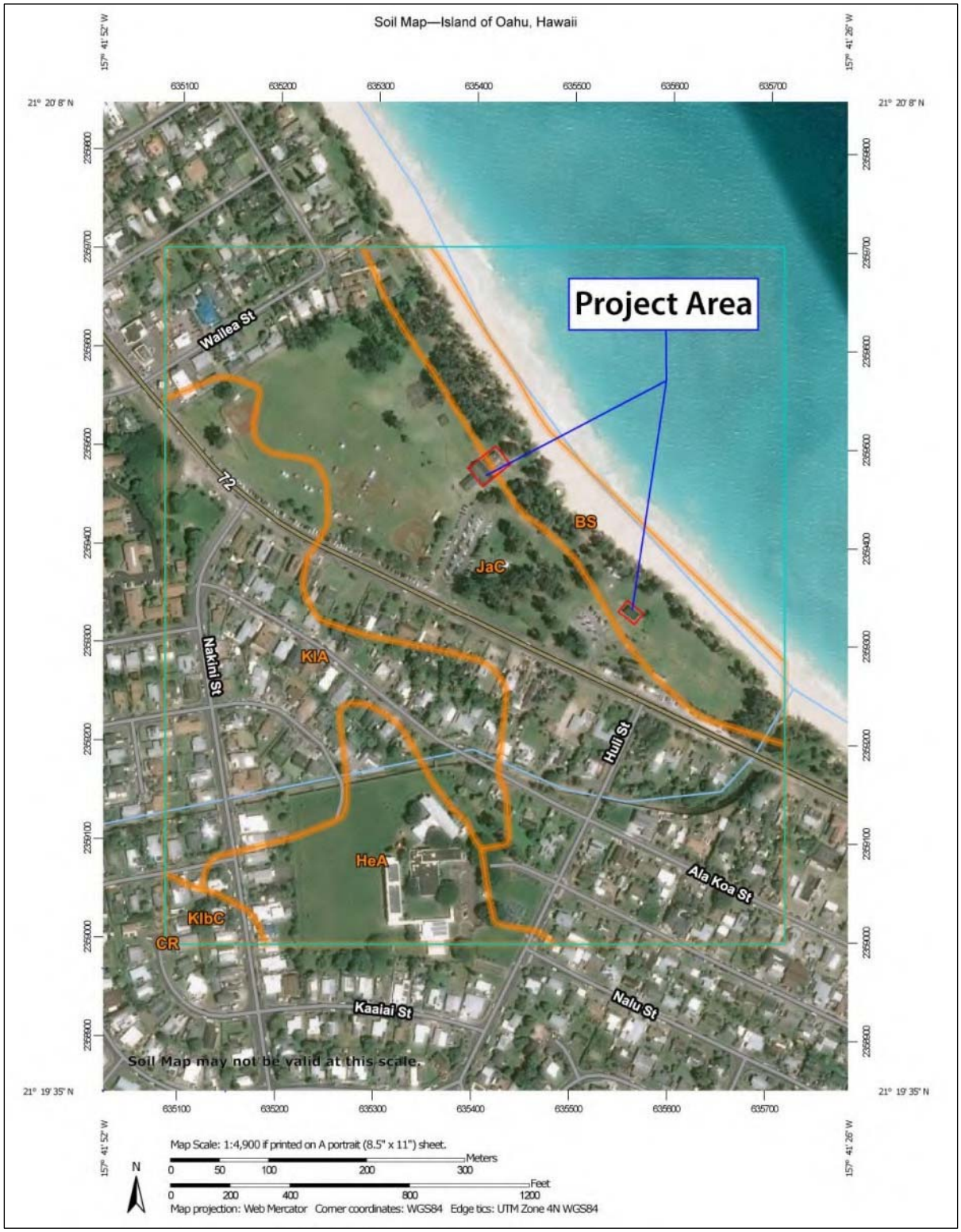

Figure 5. Soil data for the project area (base image from U.S. Department of Agriculture, Natural Resources Conservation Service soil survey at http://websoilsurvey.sc.egov.usda.gov

1.2 Background

The appropriate information concerning the ahupua‘a of Waimānalo has been collected, focusing on areas near or adjacent to the project area. A thorough analysis of this project and potential impacts to cultural resources, historical resources, and archaeological sites is included in this assessment.

The CIA provides an overview of cultural and historic resources in the project area using thorough literature review, community and cultural practitioner consultation, and high-level, project-specific surveys. The CIA will focus on identifying areas in which disturbance should be avoided or minimized to reduce impacts to historic properties or culturally important features. The paramount goal is to prevent impacts through avoidance of sensitive areas and mitigating for impacts only if avoidance is not possible.

1.3 Geographic Extent

The geographic extent for impacts to cultural resources and historic properties includes the project area and localized surroundings. This CIA also reviews some of the resources primarily covered by the regulatory review. It primarily researches and reviews the range of biocultural resources identified through historical documents, traditional knowledge, information found in the Hawaiian language historical caché, and oral histories and knowledge collected from cultural practitioners and experts.

There is clear guidance from the Office of Environmental Quality and Control (OEQC), now known as the Environmental Review Program (ERP), within the Office of Planning and Sustainable Development (ESP), that recommends a geographic extent beyond the identified or typical boundaries of the geographic project area. The recommended area is typically the size of the traditional land area (ahupua‘a) or region (moku), but this can be larger or smaller depending on what best helps to identify the resources appropriately.

The geographic extent of the CIA is based on the position that the “Project Area” is part of a cultural landscape or cultural landscapes that therefore it is most appropriate to set and study the proposed alternatives within that cultural context.

1.4 Goal of Cultural Impact Assessment

This cultural impact assessment looks to partially fulfill the requirement of taking into account the Project’s potential impacts on historic and cultural resources and, at a minimum, describe: a) any valued cultural, historic, or natural resources in the area in questions, including the extent to which traditional and customary native Hawaiian rights are exercised in the area, b)

the extent to which those resources – including traditional and customary native Hawaiians rights – will be affected or impaired by the Project; and c) the feasible action, if any, to be taken to reasonably protect native Hawaiian rights if they are found to exist.

1.5 Regulatory Background

Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to protect and preserve cultural beliefs, practices, and resources of Kānaka ʻŌiwi (Native Hawaiians) and other ethnic groups. To assist decision makers in the protection of cultural resources, Chapter 343, HRS and Hawaiʻi Administrative Rules (HAR) § 11-200.1 rules for the environmental impact assessment process require project proponents to assess proposed actions for their potential impacts to cultural properties, practices, and beliefs.

This process was clarified by Act 50, Session Laws of Hawaiʻi (SLH) 2000. Act 50 recognized the importance of protecting Native Hawaiian cultural resources and required that EAs include the disclosure of the effects of a proposed action on the cultural practices of the community and state, with the focus on the Native Hawaiian community in particular. Specifically, the Environmental Council suggested the CIAs should include information relating to practices and beliefs of a particular cultural or ethnic group or groups. Such information may be obtained through public scoping, community meetings, ethnographic interviews, and oral histories.

It is important to note that while similar in their areas of studies, archaeological surveys and CIAs are concerned with distinct and different foci. Archaeological studies are primarily concerned with historic properties and tangible heritage, whereas CIAs look at cultural practices and beliefs, which can be associated with a specific location, but also often intangible in nature.

1.6 Compliance

The State and its agencies have an affirmative obligation to preserve and protect Native Hawaiians' customarily and traditionally exercised rights to the extent feasible.[1] State law further recognizes that the cultural landscapes provide living and valuable cultural resources where Native Hawaiians have and continue to exercise traditional and customary practices, including hunting, fishing, gathering, and religious practices. In *Ka Paʻakai*, the Hawaiʻi Supreme Court provided government agencies an analytical framework to ensure the protection and preservation of traditional and customary Native Hawaiian rights while

[1] Article XII, Section 7 of the Hawaiʻi State Constitution, *Ka Paʻakai O Ka ʻĀina v. Land Use Commission*, 94 Haw. 31 [2000] (Ka Paʻakai), Act 50 SLH 2000.

reasonably accommodating competing private development interests. This is accomplished through:

1) The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project 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 to reasonably protect Native Hawaiian rights if they are found to exist.

While not attached to a HRS Chapter 343 action, this CIA was prepared under HRS Chapter 343 and Act 50 SLH 2000 as those are the prevailing standards and best practices for CIAs. The appropriate information concerning the ahupua'a of Wai'anae has been collected, focusing on areas near or adjacent to the project area. A thorough analysis of this project and potential impacts to cultural resources, historical resources, and archaeological sites is included in this assessment.

The present analyses of archival documents, oral traditions (oli or chants, mele or songs, and/or hula or dance texts), and Hawaiian language sources including books, manuscripts, and newspaper articles, are focused on identifying recorded cultural and archaeological resources present on the landscape, including: Hawaiian and non-Hawaiian place names; landscape features (ridges, gulches, cinder cones); archaeological features (kuleana parcel walls, house platforms, shrines, heiau or places of worship, etc.); culturally significant areas (viewsheds, unmodified areas where gathering practices and/or rituals were performed); and significant biocultural resources. The information gathered through research helped to focus interview questions on specific features and elements within the project area.

Interviews with lineal and cultural descendants are instrumental in procuring information about the project area's transformation through time and changing uses. Interviews were conducted with recognized cultural experts and summaries of those interviews are included herein.

2.0 Methodology

The approach to developing the CIA is as follows:

1) Gather Best Information Available
   a) Gather historic cultural information from stories and other oral histories about the affected area to provide cultural foundation for the report;
   b) Inventory as much information as can be identified about as many known cultural, historic, and natural resources, including previous archaeological inventory surveys, CIAs, etc. that may have been completed for the possible range of areas; and
   c) Update the information with interviews with cultural or lineal descendants or other knowledgeable cultural practitioners.
2) Identify Potential Impacts to Cultural Resources
3) Develop Reasonable Mitigation Measures to Reduce Potential Impacts
   a) Involve the community and cultural experts in developing culturally appropriate mitigation measures; and
   b) Develop specific Best Management Practices (BMPs), if any are required, for conducting the project in a culturally appropriate and/or sensitive manner as to mitigation and/or reduce any impacts to cultural practices and/or resources.

While numerous studies have been conducted on this area, very few have effectively utilized Hawaiian language resources and Hawaiian knowledge. This appears to have impacted modern understanding of this location, as many of the relevant documents are native testimonies given by Kanaka Hawai‘i (Hawaiians) who lived on this land.

While hundreds of place names and primary source historical accounts (from both Hawaiian and English language narratives) are cited on the following pages, it is impossible to tell the whole story of these lands in any given manuscript. A range of history, spanning the generations, has been covered. Importantly, the resources herein are a means of connecting people with the history of their communities—that they are part of that history. Knowledge of place will, in turn, promote appreciation for place and encourage acts of stewardship for the valued resources that we pass on to the future.

Background research for the literature review was conducted using materials obtained from the State Historic Preservation Division (SHPD) library in Kapolei and the Honua Consulting LLC report library. On-line materials consulted included the Ulukau Electronic Hawaiian Database (www.ulukau.com), Papakilo Database (www.papakilodatabase.com), the State Library on-line (http://www.librarieshawaii.org/ Serials/databases.html), and Waihona ‘Āina Māhele database (http://www.waihona.com). Hawaiian terms and place names were translated using the on-line Hawaiian dictionaries (Nā Puke Wehewehe ‘Ōlelo Hawai‘i)

(www.wehewehe.com), *Place Names of Hawai'i* (Pukui et al. 1974), and *Hawai'i Place Names* (Clark 2002). Historic maps were obtained from the State Archives, State of Hawai'i Land Survey Division website (http://ags.hawaii.gov/survey/map-search/), UH-Mānoa Maps, Aerial Photographs, and GIS (MAGIS) website (http://guides.library.manoa.hawaii.edu/magis). Maps were geo-referenced for this report using ArcGIS 10.3. GIS is not 100% precise and historic maps were created with inherent flaws; therefore, geo-referenced maps should be understood to have some built-in inaccuracy.

While conducting the research, primary references included, but were not limited to: land use records, including the Hawaiian L.C.A. records from the Māhele 'Āina (Land Division) of 1848; the Boundary Commission Testimonies and Survey records of the Kingdom and Territory of Hawai'i; and historical texts authored or compiled by: David Malo (1987); Samuel M. Kamakau (1964, 1991, 1992); records of the American Board of Commissioners of Foreign Missions (A.B.C.F.M.) (1820–1860); Charles Wilkes (1845); Alexander & Preston (1892–1894); Abraham Fornander (1916–1919); and many other native and foreign writers. The study also includes several native accounts from Hawaiian language newspapers (primarily compiled and translated from Hawaiian to English by K. Maly), and historical records authored by nineteenth century visitors, and residents of the region.

Historical and archival resources were located in the collections of the Hawai'i State Archives, Survey Division, Land Management Division, Survey Division, and Bureau of Conveyances; the Bishop Museum Library and Archives; the Hawaiian Historical Society and the Hawaiian Mission Children's Society Library; University of Hawai'i-Hilo Mo'okini Library; the National Archives and Records Administration (NARA), Maryland; the Library of Congress, Washington D.C.; the National Oceanic and Atmospheric Administration National Library, Maryland; the Smithsonian Institution Natural History and National Anthropological Archives libraries, Washington, D.C.; the Houghton Library at Harvard; the United States Geological Survey (USGS) Library, Denver; the Paniolo Preservation Society and Parker Ranch collections; private family collections; and in the collection of Kumu Pono Associates LLC. This information is generally cited in categories by chronological order of the period depicted in the narratives.

M. P. Nogelmeier (2010) discusses the adverse impacts of methodology that fails to properly research and consider Hawaiian language resources. He strongly cautions against a mono-rhetorical approach that marginalizes important native voices and evidence from consideration, specifically in the field of archaeology. For this reason, Honua Consulting consciously employs a poly-rhetorical approach, whereby all data, regardless of language, is researched and considered. To fail to access these millions of pages of information within the Hawaiian language caché could arguably be a violation of Act 50, as such an approach would fundamentally fail to gather the best information available, especially considering the

voluminous amounts of historical accounts available for native tenants in the Hawaiian language.

Hawaiian culture views natural and cultural resources as largely being one and the same: without the resources provided by nature, cultural resources could and would not be procured. From a Hawaiian perspective, all natural and cultural resources are interrelated, and all natural and cultural resources are culturally significant. Kepā Maly (2001), ethnographer and Hawaiian language scholar, points out, "In any culturally sensitive discussion on land use in Hawai'i, one must understand that Hawaiian culture evolved in close partnership with its natural environment. Thus, Hawaiian culture does not have a clear dividing line of where culture ends and nature begins" (Maly 2001:1). As a leading researcher and scholars on Hawaiian culture, Maly, along with his wife, Onaona, have conducted numerous ground-breaking studies on cultural histories throughout Hawai'i. A substantial part of the archival research utilized in this study was previously compiled and published by Kepā and Onaona Maly, who have granted their permission to use this important work and are identified properly as associated authors and researchers to this study.

This study also specifically looks to identify intangible resources. Tangible and intangible heritage are inextricably linked (Bouchenaki 2003). Intangible cultural resources, also identified as intangible cultural heritage (ICH), are critical to the perpetuation of cultures globally. International and human rights law professor Federico Lenzerini notes that, "At present, we are aware on a daily basis of the definitive loss—throughout the world—of language, knowledge, knowhow, customs, and ideas, leading to the progressive impoverishment of human society" (Lenzerini 2011:12). He goes on to warn that:

> The rich cultural variety of humanity is progressively and dangerously tending towards uniformity. In cultural terms, uniformity means not only loss of cultural heritage—conceived as the totality of perceptible manifestations of the different human groups and communities that are exteriorized and put at the others' disposal—but also standardization of the different peoples of the world and of their social and cultural identity into a few stereotyped ways of life, of thinking, and of perceiving the world. Diversity of cultures reflects diversity of peoples; this is particularly linked to ICH, because such a heritage represents the living expression of the idiosyncratic traits of the different communities. Preservation of cultural diversity, as emphasized by Article 1 of the UNESCO Universal Declaration on Cultural Diversity, 'is embodied in the uniqueness and plurality of the identities of the groups and societies making up humankind'. Being a 'source of exchange, innovation and creativity', cultural diversity is vital to humanity and is inextricably linked to the safeguarding of ICH. Mutual recognition and respect for cultural diversity—and, *a fortiori*, appropriate safeguarding of the ICH of the diverse peoples making up the world—Is essential for promoting

> harmony in intercultural relations, through fostering better appreciation and understanding of the differences between human communities. (Lenzarini 2011:103)

Therefore, tradition and practice, as elements of Hawaiian ICH, are essential to the protection of Hawaiian rights and the perpetuation of the Hawaiian culture.

2.1 Identifying Traditional or Customary Practices

It is within this context that traditional or customary practices are studied. The concept of traditional or customary practices can often be a challenging one for people to grasp. Traditional or customary practices can be defined as follows:

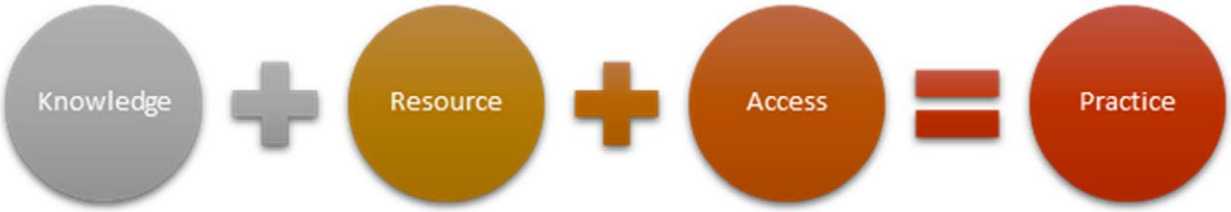

Figure 6. Diagram of elements that contribute to traditional or customary practices (Honua Consulting)

The first element is knowledge. This has been referred to as traditional ecological knowledge (TEK), Indigenous local knowledge (ILK), or ethnoscience. In the context of this study, it is the information, data, knowledge, or expertise Native Hawaiians or local communities possessed or possess about an area's environment. In a traditional context, this would have included information Hawaiians possessed in order to have the skills to utilize the area's resources for a range of purposes, including, but not limited to, travel, food, worship or habitation. This element is largely intangible.

The second element are the resources themselves. These are primarily tangible resources, either archaeological resources (i.e., habitation structures, walls, etc.) or natural resources (i.e., plants, animals, etc.). These can also be places, such as sacred or culturally important sites or wahi pana. Sometimes these wahi pana are general locations, this does not diminish their importance or value. Nonetheless, it is important to recognize that potential eligibility as a "historic site" on the National Register of Historic Places (NRHP) would require identifiable boundaries of a site.

The third element is access. The first two elements alone are not enough to allow for traditional or customary practices to take place. The practitioners must have access to the resource in order to be able to practice their traditional customs. Access does not just mean the ability to physically access a location, but it also means access to resources. For example,

if a particular plant is used for medicinal purposes, there needs to be a sufficient amount of that plant available to practitioners for use. Therefore, an action that would adversely impact the population of a particular plant with cultural properties would impact practitioners' ability to access that plant. By extension, it would adversely impact the traditional or customary practice.

Traditional or customary practices are, therefore, the combination of knowledge(s), resource(s) and access. Each of these individual elements should be researched and identified in assessing any potential practices or impacts to said practices.

2.2 Traditional Knowledge, or Ethnoscience, and the Identification of Cultural Resources

The concept of ethnoscience was first established in the 1960s and has been defined "the field of inquiry concerned with the identification of the conceptual schemata that indigenous peoples use to organize their experience of the environment" (Roth 2019). Ethnoscience includes a wide range of subfields, including, but is not limited to, ethnoecology, ethnobotany, ethnozoology, ethnoclimatology, ethnomedicine and ethnopedology. All of these fields are important to properly identify traditional knowledge within a certain area.

Traditional Native Hawaiian practitioners were scientists and expert natural resource managers by necessity. Without modern technological conveniences to rely on, Hawaiians developed and maintained prosperous and symbiotic relationships with their natural environment for thousands of years. Their environments were their families, their homes, and their laboratories. They knew the names of every wind and every rain. The elements taught and inspired. The ability of Indigenous people to combine spirituality and science led to the formation of unique land-based methodologies that spurred unsurpassed innovation. Therefore, identifying significant places requires a baseline understanding of what made places significant for Hawaiians.

Hawaiians were both settlers and explorers. In *Plants in Hawaiian Culture,* B. Krauss explains: "Exploration of the forests revealed trees, the timber of which was valuable for building houses and making canoes. The forests also yielded plants that could be used for making and dying tapa, for medicine, and for a variety of other artifacts" (Krauss 1993). Analysis of native plants and resource management practices reveals the depth to which Hawaiians excelled in their environmental science practices:

> [Hawaiians] demonstrated great ability in systematic differentiation, identification, and naming of the plants they cultivated and gathered for use. Their knowledge of the gross morphology of plants, their habits of growth, and the requirements for greatest yields is not excelled by expert agriculturists of more complicated cultures. They worked out the procedures of cultivation for every locality, for all altitudes, for different

> weather conditions and exposures, and for soils of all types. In their close observations of the plants they grew, they noted and selected mutants (spores) and natural hybrids, and so created varieties of the plants they already had. Thus over the years after their arrival in the Islands, the Hawaiians added hundreds of named varieties of taro, sweet potatoes, sugarcane, and other cultivated plants to those they had brought with them from the central Pacific (Krauss 1993).

Thus, Native Hawaiians reinforced the biodiversity that continues to exist in Hawai'i today through their customary traditional natural resource management practices.

The present analyses of archival documents, oral traditions (oli or chants, mele or songs, and/or hula dances and ha'i mo'olelo or storytelling performances), and Hawaiian language sources including books, manuscripts, and newspaper articles, are focused on identifying recorded cultural resources present on the landscape, including: Hawaiian and non-Hawaiian place names; landscape features (ridges, gulches, cinder cones); archaeological features (kuleana parcel walls, house platforms, shrines, heiau [places of worship], etc.); culturally significant areas (viewsheds, unmodified areas where gathering practices and/or rituals were performed); and significant biological, physiological, or natural resources. This research also looks to document the wide range of Hawaiian science that existed within the geographic extent.

2.3 Mo'olelo 'Āina: Native Traditions of the Land

Among the most significant sources of native mo'olelo are the Hawaiian language newspapers which were printed between 1838 and 1948, and the early writings of foreign visitors and residents. Most of the accounts that were submitted to the papers were penned by native residents of areas being described and noted native historians. Over the last 30 years, Kepā Maly has reviewed and compiled an extensive index of articles published in the Hawaiian language newspapers, with particular emphasis on those narratives pertaining to lands, customs, and traditions. Many traditions naming places around Hawai'i are found in these early writings. Many of these accounts describe native practices, the nature of land use at specific locations, and native mo'olelo (history, narrative, story). Thus, we are given a means of understanding how people related to their environment and sustained themselves on the land.

2.4 Historic Maps

There are also numerous, informative historic maps for the region. Surveyors of the eighteenth and nineteenth centuries were skilled in traversing land areas and capturing important features and resources throughout Hawai'i's rich islands. Historic maps were carefully studied, and the features detailed therein were aggregated and categorized to help identify

specific places, names, features, and resources throughout the study area. From these, among other documents, new maps were created that more thoroughly capture the range of resources in the area.

2.5 Archaeological Studies

A literature and field inspection has been completed by Honua Consulting.

2.6 Ethnographic Methodology

Information from lineal and cultural descendants is instrumental in procuring information about the project area's transformation over time and its changing uses. The present analyses of archival documents, oral traditions (including oli or chants, mele or songs), and/or hula dance), and Hawaiian language sources including books, manuscripts, and newspaper articles, are focused on identifying recorded cultural and archaeological resources present on the landscape, including: Hawaiian and non-Hawaiian place names; landscape features (ridges, gulches, cinder cones); archaeological features (kuleana parcel walls, house platforms, shrines, heiau or places of worship, etc.); culturally significant areas (viewsheds, unmodified areas where gathering practices and/or rituals were performed); and significant biocultural resources. The information gathered through research helped to focus interview questions on specific features and elements within the project area.

Information from lineal and cultural descendants is instrumental in procuring information about the project area's transformation through time and changing uses. Honua Consulting attended the public meeting held for the project on June 8, 2023, and collected names of interest area residents and practitioners. Honua Consulting followed up with these individuals and conducted interviews with any interested persons.

3. Historic Background

The purpose of this section is to characterize the Hawaiian cultural landscape within which the project area is located; this includes a description of Waimānalo's relevant and representative inoa ʻāina (place names), moʻolelo (oral-historical accounts), wahi pana (legendary places), and other natural and cultural resources. A general (ahupuaʻa-wide) summary is followed by a project-area specific discussion.

3.1 Traditional Period

As depicted in Figure 7, the size and configuration of the ahupuaʻa of Waimānalo has changed from its traditional Hawaiian (or Oʻahuan) boundaries—which once included Maunalua Ahupuaʻa as an ʻili of Waimānalo (and, therefore, part of the moku of Koʻolaupoko), to its current extent. Writing in 1935, the University of Hawaiʻi demographer, John Wesley Coulter, described these changes:

> The land of Maunalua is an ili of the ahupuaa of Waimanalo and originally belonged to Koolaupoko district. Maps made as late as 1902 placed it in that district. It is situated on the south side of the Koolau range and should really be a part of Honolulu district. The many previous acts referring to the Oahu districts never did make this sufficiently clear, so in the . . . [1932 amendment to the] Revised Laws of Hawaii 1925 . . . the description of Honolulu and Koolaupoko districts clarified this point. (Sterling and Summers 1978:257)

Error! Reference source not found. is a 1929 map showing the (now outdated) Koʻolaupoko District boundary inclusive of Maunalua.

The current ahupuaʻa boundary of Waimānalo follows the ridgeline of the Koʻolau Range down to Makapuʻu (literally, "hill beginning" [with "maka" taking on the meaning of "source" or "origins"] or "bulging eye" [from a reference in the famous saga of Pele and Hiʻiakaikapoliopele]).[2] This current configuration—following the Koʻolau ridgeline—is more consistent with the physiographic characteristics of southeastern Oʻahu. In a real sense, Waimānalo's current configuration marks the start (or end) of the windward coast.

Waimānalo (literally, "potable water"), named after its single permanent stream, is associated with a number of Hawaiian accounts of pūnāwai (fresh-water springs), fishing villages and small settlements along the coast, a famous kahuna lapaʻau (traditional healer) named Kapoi, the locally-famous sea pond, Pāhonu, at the coastline named for honu (green sea turtles), the Pele and Hiʻiaka saga, and more (see below).

Waimānalo is blessed with other intangible resources that are highly valued by many in the community, such as its unparalleled natural beauty and stunning physiography. Figure 7, an

[2] Unless stated otherwise, all place name translations/interpretations are from Pukui et al. (1974).

aerial of Waimānalo from the south, illustrates its dramatic setting, nestled between the two-thousand-foot pali (cliffs) of the Koʻolau ridgeline and the white sands of Waimānalo Bay. Figure 8 is a detailed photograph of the prominent and unique face of the Koʻolau as seen from the center of the ahupuaʻa.

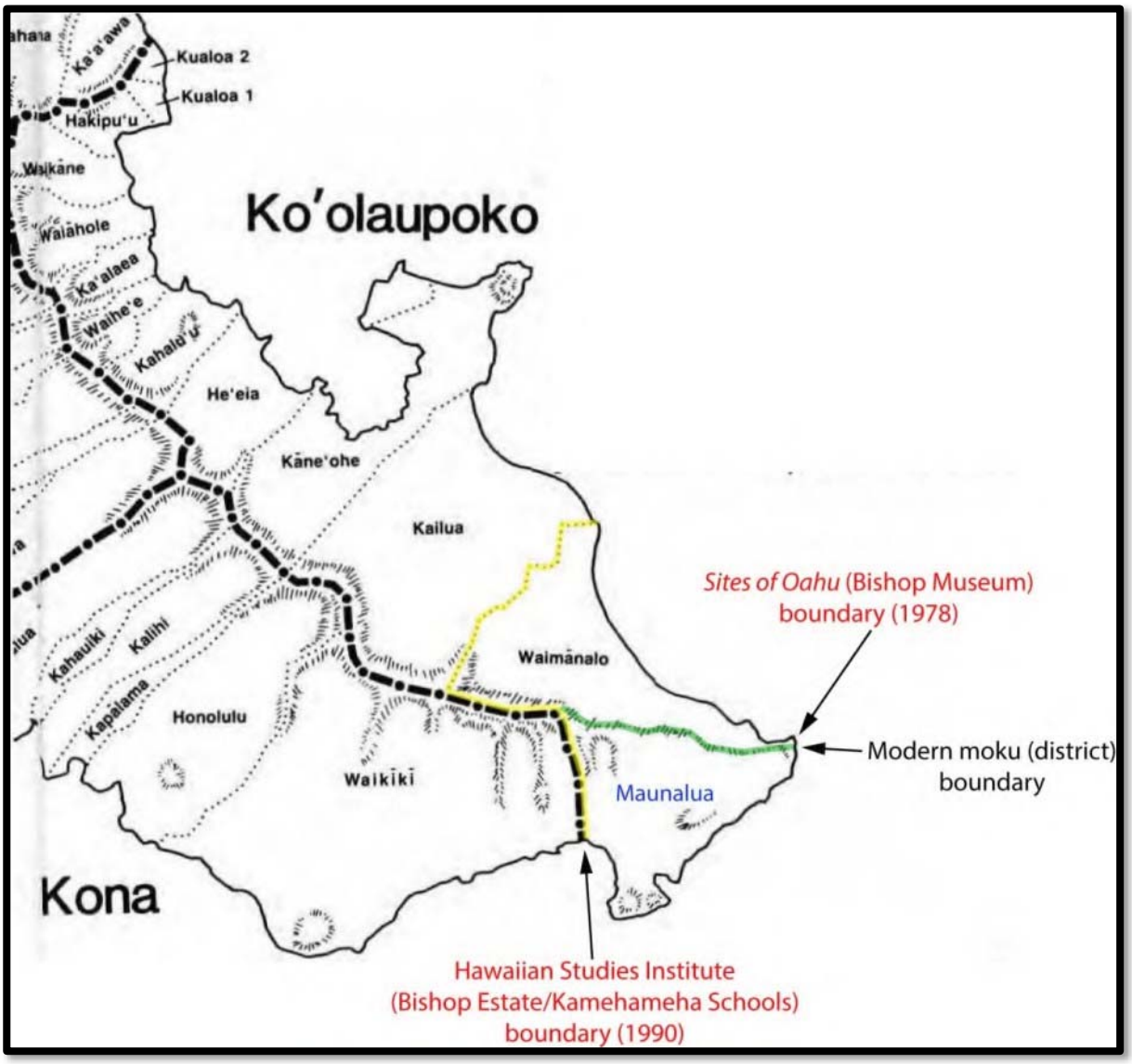

Figure 7. Variation in the southern boundary of Waimānalo Ahupuaʻa (and the districts of Koʻolaupoko and Kona [Honolulu]); the green line, as depicted in the Bishop Museum's *Sites of Oahu* (Sterling and Summers 1978), has been official for nearly the last century; the yellow line, which considers Maunalua as an ʻili of Waimānalo, is an older configuration (see, e.g., Snakenberg 1990, which is the source of this base map)

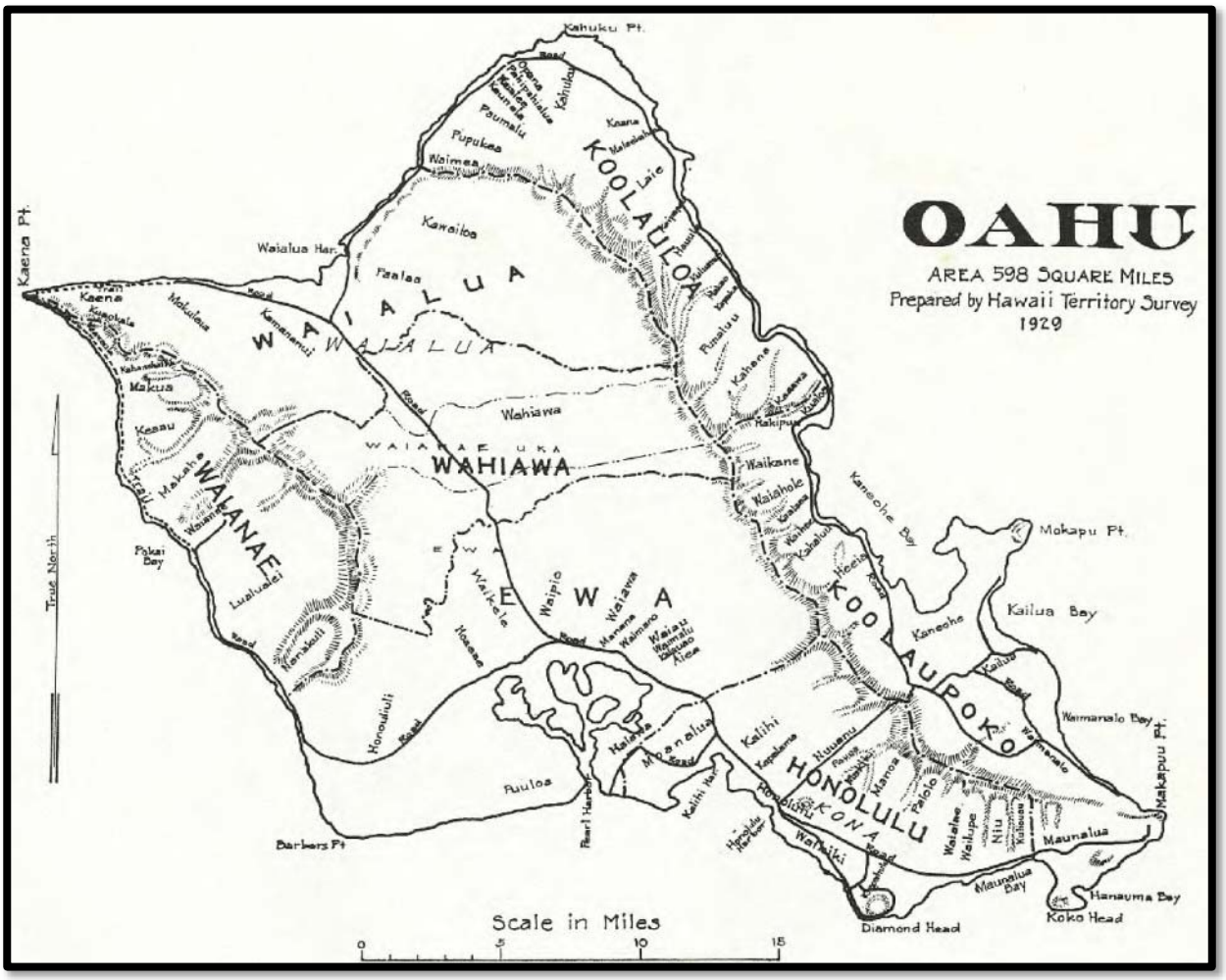

Figure 8. Map of Oʻahu Island from 1929 showing the Koʻolaupoko District inclusive of Maunalua (source: frontispiece Sterling and Summers 1978)

Figure 9. Undated aerial photograph of Waimānalo with darkened peaks of Olomana (i.e., southern boundary with Kailua, upper center of image); approximate location of current project area indicated by arrow (base image source: Macdonald et al. 1983:437)

Although Waimānalo's landscape had been fundamentally altered by the time of E. S. Craighill Handy's ground-breaking study of traditional Hawaiian subsistence methods from the 1930s (commercial sugar cane agriculture since the late 1880s had taken its toll), Handy's observations (1940; Handy and Handy 1972) continue to provide valuable insights on traditional Hawaiian use of the land for settlement and subsistence purposes. And, even though Waimānalo has long been overshadowed by Kailua Ahupua'a relative to the latter's higher level of overall productivity and food-production, Handy had far more to say about Waimānalo than Kailua. Among the highlights of his presentation are the following selected passages from Handy and Handy (1972):

> . . . much of what was until recent years sugar-cane land had previously been planted to taro. There were evidences in 1935 of old *lo'i* much further inland, in a semicircle at the back of the broad valley [note, here, he is likely referring to an area about a mile and a half or so northwest of the current project area].

> A *kamaʻaina* of the place at that time named nine such *loʻi* sections whose water came from springs. (ibid.:457)
>
> [attributing this to Mary Kawena Pukui's research in 1930 Hawaiian language newspaper *Hoku o Hawaii*] There are two peculiar springs at Waimanalo . . . The one called Kupunakane [Grandfather] is away up in the mountains. The spring called Kupunawahine [Grandmother] is a spring way down on the level land. The strange, strange thing about these two ponds was that on calm, sunny days they begin to cry out to each other. Their voices are soft and sounded very much like a woman mourning her husband. On days that were overcast with clouds in the sky, then the water of the mountain spring changed. The water of the mountain spring became warm and when you drank the water in the lowland spring it was cool, according to the legend.

Waimānalo's several-miles-long bay, from Wailea (literally, "water of Lea," a goddess of canoe makers) Point bordering Kailua Ahupuaʻa to Makapuʻu Point (at its southern boundary with Maunalua Ahupuaʻa), was once a favored canoe-landing location for Hawaiians.

Oral-historical accounts including references to Waimānalo include the famous saga of the Hawaiian volcano goddess, Pele, and one of her sisters, Hiʻiaka (or Hiʻiaka-i-ka-poli-o-pele), whose inter-island travels resulted in commentary about the natural and cultural resources of many places. Hiʻiaka's epic narrative mentions landing at Makapuʻu, trading fish for vegetable foods with the people of Waimānalo, an old village known as Kapuʻa, or according to Pukui et al. (1974:89), Kapuʻa ("the whistle"), and a stream known as Muliwaiʻōlena ("turmeric river" or "yellow river") (e.g., Emerson 1915:89; Fornander 1919:Vol. VI:343; Sterling and Summers 1978:248–249). According to *Sites of Oahu* (Sterling and Summers 1978: map following p. 256), this village (Kapuʻa) and stream mouth (Muliwaiʻōlena) were directly makai (more or less due northeast) of the current project area, just inland of the coast. Just inland of this village and stream mouth was another wahi pana known as Puʻu Molokaʻi, a place where people from that island settled and eventually became integrated into the greater Waimānalo community.

Some traditional accounts name the coastal area of central Waimānalo as ʻĀpuakea (ibid.:245), although Pukui et al. (1974:13) consider this place name to represent a land division in Kāneʻohe "probably named for a local rain . . . [literally] white fish basket."

Another famous place in Waimānalo—that can still be visited and experienced today—is Pāhonu. This fishpond-like structure along the shoreline of the southern Waimānalo coast was said to have been built for a chief who enjoyed the taste of honu (green sea turtle) meat (ibid.:249).

3.2 Historic Period

This section describes general land-use patterns and change in Waimānalo in the historic period, that is, following the disintegration of the traditional kapu system (circa 1820); some comments on how the project area, in particular, was affected by these changes; and historic maps and aerials that illustrate some of these temporal changes.

In the proto-historic period between the end of "pre-Contact" times and early historic times, Waimānalo was known as a famous canoe landing and departure place. For example, both Kahekili (the Maui ruler who conquered Oʻahu in the early 1780s) and Kamehameha the Great (in 1795) landed portions of their war fleet in Waimānalo.

From as early as the time of Kamehameha, Waimānalo Ahupuaʻa was considered Crown lands. Tulchin and McDermott (2010:13), citing public records from 1929, summarize this as follows:

> After Kamehameha's conquest of Oʻahu and his division of the island among his chiefs, Waimānalo was apparently retained as Kamehameha's personal property. This seems to be the case as, in 1845, when Kamehameha III, Kauikeaouli, who had "inherited" the land as a son of Kamehameha I, claimed the ahupuaʻa of Waimānalo "to be the private lands of his Majesty Kamehameha III, to have and to hold to himself, his heirs and successors, forever; and said lands shall be regulated and disposed of according to his Royal will and pleasure, subject only to the rights of tenants."

The middle nineteenth century legal and administrative process known as the Māhele resulted in the Land Commission Award (LCA 7713:ʻāpana 30, Royal Patent 4475) of the entire ahupuaʻa of Waimānalo to the Aliʻi Nui Victoria Kamāmalu, with the exception of commoners claims. According to Tulchin and McDermott (2010:13–14):

> The ahupuaʻa of Waimānalo was awarded to Victoria Kamāmalu, subject to the *kuleana* claims of the commoners. She received the third largest share of lands among the *aliʻi nui* (high chiefs) of the Kingdom of Hawaiʻi, including 47 *ahupuaʻa*-sized parcels in addition to Waimānalo. Approximately 113 *kuleana* land claims were awarded in Waimānalo. Nearly all of these Land Commission Awards (LCA) were located along Waimānalo Stream, or its upper tributaries, in the northwestern portion of the *ahupuaʻa* . . . While the Hawaiian population of Waimānalo was likely much larger and more dispersed in pre-contact times, it nevertheless appears that the traditional Hawaiian population of Waimānalo was always clustered along Waimānalo Stream and its upper tributaries, focused on wetland taro and sweet potato cultivation. Additional *kuleana* LCAs, primarily consisting of house lots, were scattered along the coastal areas of central and southeastern . . . No *kuleana* LCAs were located in the vicinity of the current project area.

The two most consequential macro-economic changes in greater Waimānalo that altered land use in the historic period were first ranching, starting around the time of the Māhele, and then commercial sugar cane.

Ranching in the ahupua‘a was started by an Englishman, Thomas Cummins, who leased nearly the entire ahupua‘a from Kamehameha III in 1850 (for 50 years). Cummins used this lease to establish a large cattle and horse ranch. Cummins was responsible for building a landing (wharf) at Waimānalo Bay. Many royals and other foreign- and native-born elites were entertained by Cummins in the latter half of the 1800s.

Chinese rice farmers by the 1870s were actively working some of the Waimānalo stream floodplain areas. As happened in many places on O‘ahu, most of these small rice-growing parcels were eventually converted to commercial sugar cane.

By around 1880, the Cummins family created the Waimānalo Sugar Co., building a sugar mill near the center of the old town, and a railway down to the landing (wharf). Tulchin and McDermott (2010:16–17) summarize this impactful period in Waimānalo’s history:

> John A. Cummins saw the potential of sugar production at Waimānalo. He organized the Waimanalo Sugar Company and began construction of a sugar mill in 1880. In 1890, J. A. Cummins renegotiated his father’s original lease on the Waimānalo lands for an additional 30 years, and sublet the lands to the Waimanalo Sugar Company. The Waimanalo Sugar Company continued to buy sugar from the Chinese farmers until circa 1900, when the plantation began to do most of its own cultivation.
>
> The Waimanalo Sugar Company continued to grow, with increasing lands being put under cultivation. As the plantation grew, former ranch lands were converted to cane fields. New irrigation ditches and railroad lines were constructed, and improvements were made to the mill and Waimanalo Landing.
>
> In 1885, W.G. Irwin & Company (which later merged with C. Brewer & Company) became agents for the Waimanalo Sugar Company, with John Cummins remaining manager. John Cummins died in 1913 and his estate sold the remaining fee simple lands and the unexpired lease of Waimānalo lands to the Waimanalo Sugar Company.
>
> Water was a continuous problem for most sugar companies, including the Waimanalo Sugar Company. Irrigation for the Waimānalo cane lands was developed from three sources: springs and water tunnels in neighboring Maunawili Valley; Kawainui Swamp in Kailua; and a swampy area near the mouth of Waimānalo Stream, known as the Waimānalo Lagoon . . . Water from these sources was transported to the Waimānalo cane lands via the Kailua Ditch, Maunawili Ditch, and the Pump Ditch, respectively.

The Waimanalo Sugar Company continued operations into the 1940s. However, facing rising operational costs and diminishing returns, the Waimanalo Sugar Company ceased operations in 1947.

3.2.2 Historic Maps and Aerial Images of the Project Area

This section discussed the historic maps and aerial images of the Project Area as a means of demonstrating both the historic landscape and the changes to this region over time.

Figure 10, a portion of 1881 map of Oʻahu, shows the entire ahupuaʻa as Crown land consisting of approximately 8,000 acres. As described above, dozens of hoa ʻāina (or kuleana) parcels, or LCAs, were awarded in the northwestern portion of the ahupuaʻa, near its permanent streams and most extensive floodplain. These kuleana parcels are not depicted on this map, but the general area is illustrated as a network of branching streams and floodplain northwest of the current project area. Also shown on this map is the name J. Cummings, son of Thomas Cummins (the original leasee of most of Waimānalo starting around 1850 for ranching), who in the later 1800s helped convert these lands to commercial sugar cane.

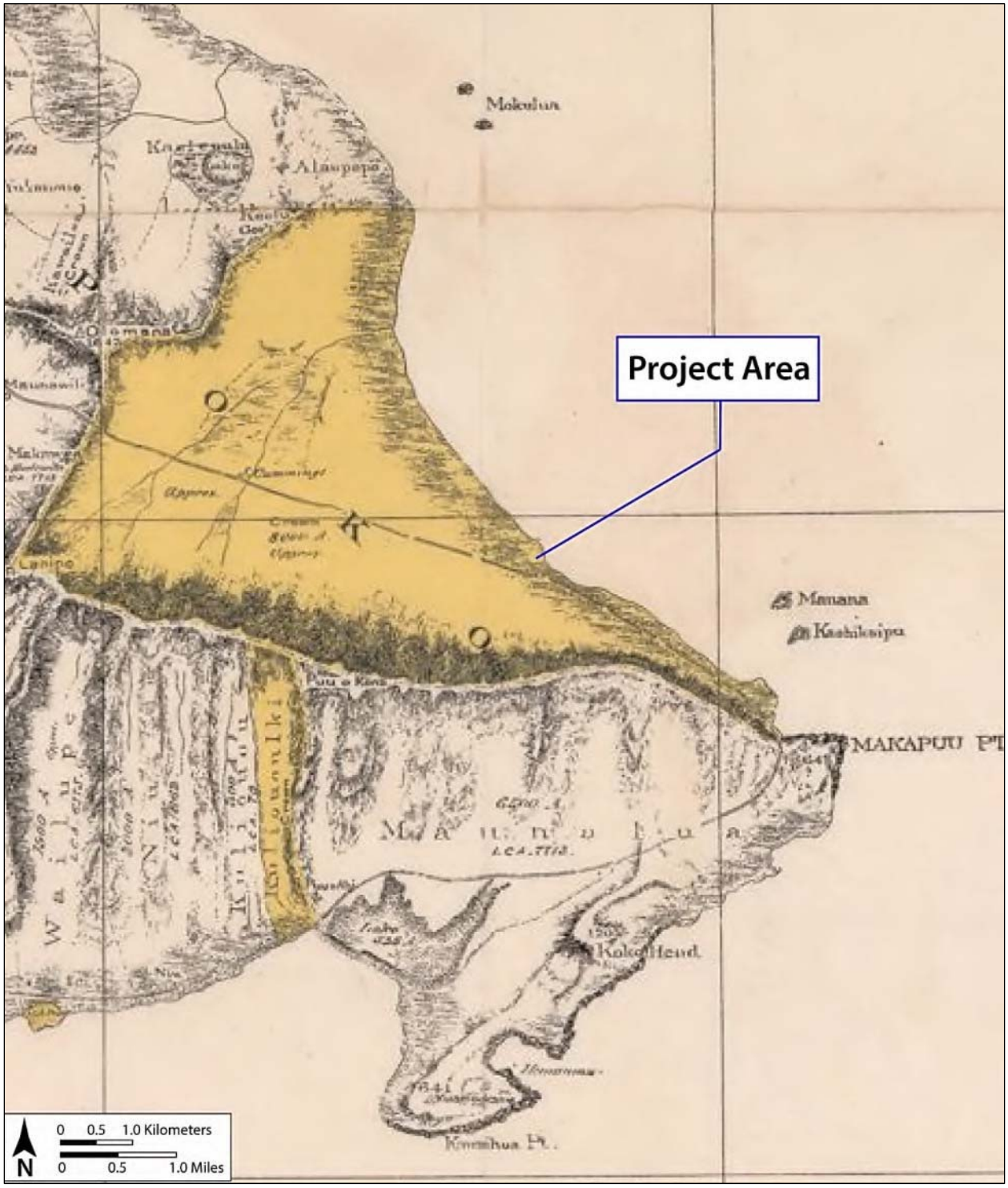

Figure 10. Portion of 1881 Covington map showing project area location (Registered Map 1381) (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

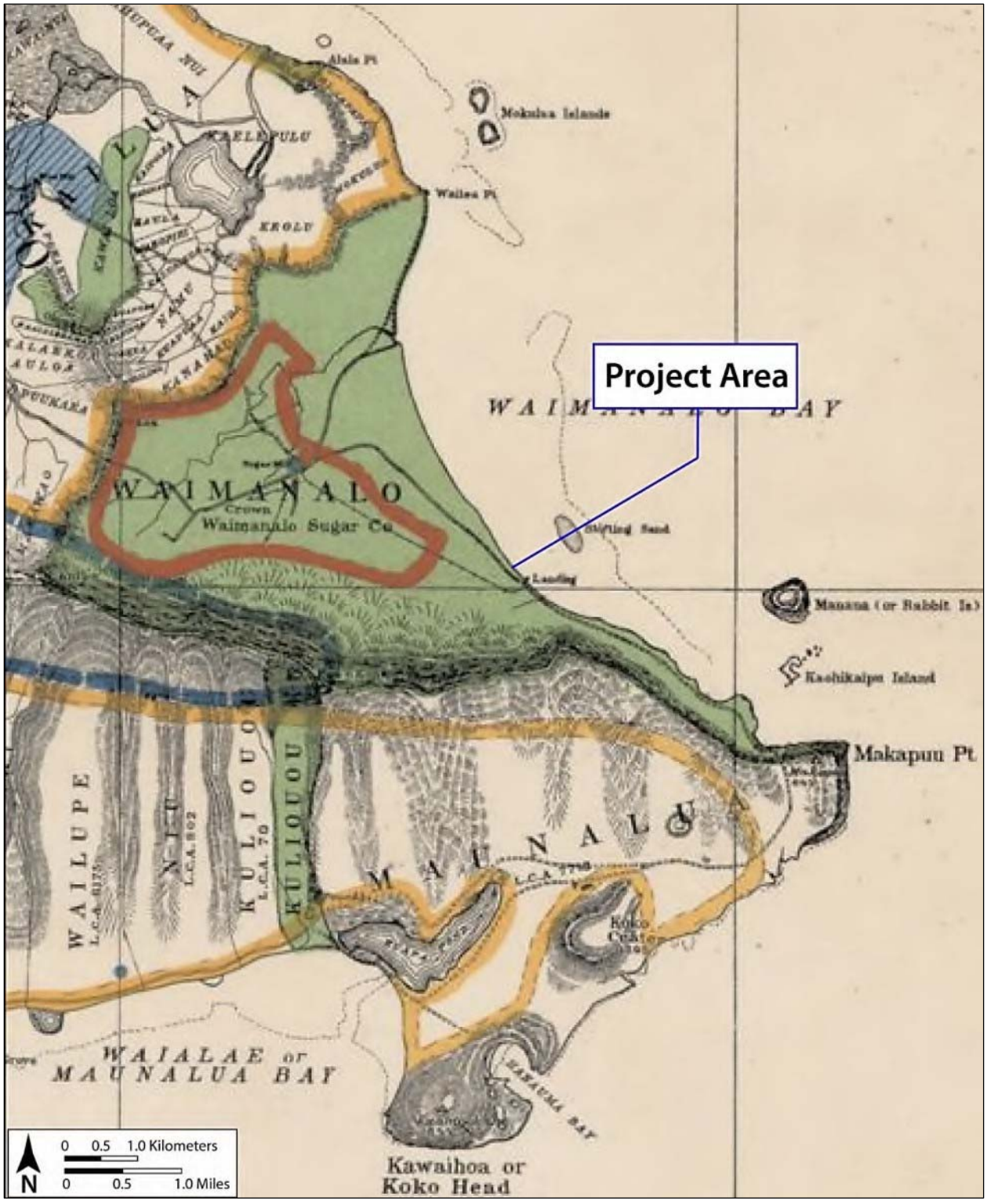

Figure 11. Portion of 1902 Wall/Donn map (Registered Map 2374) with project area location (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

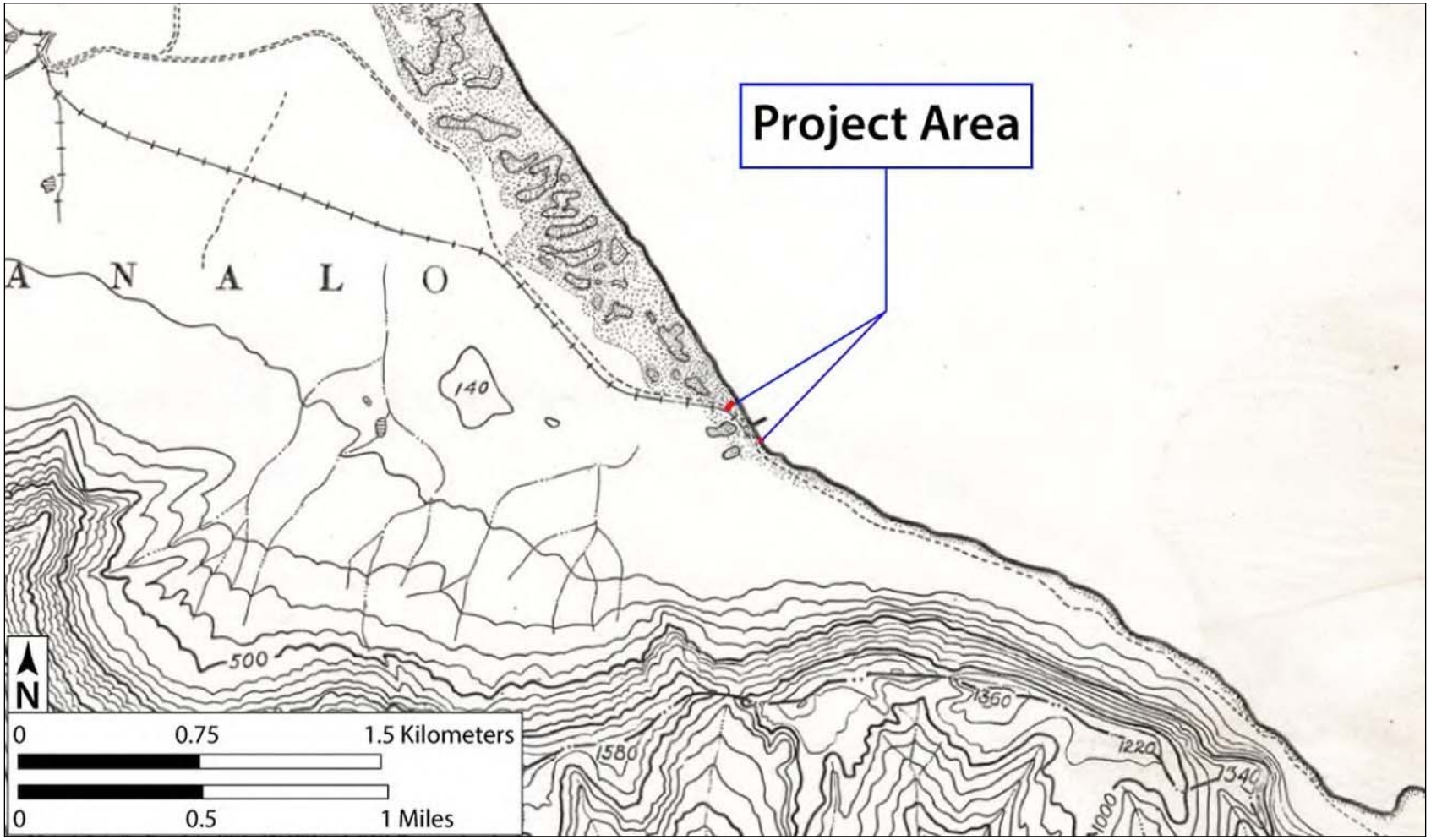

Figure 12. Portion of 1914 U.S. military topographic map (Diamond Head to Makapuu Point) showing project-area location (base map source: University of Hawai'i-Mānoa's digital maps, http://magis. manoa.hawaii.edu/ maps/index.html)

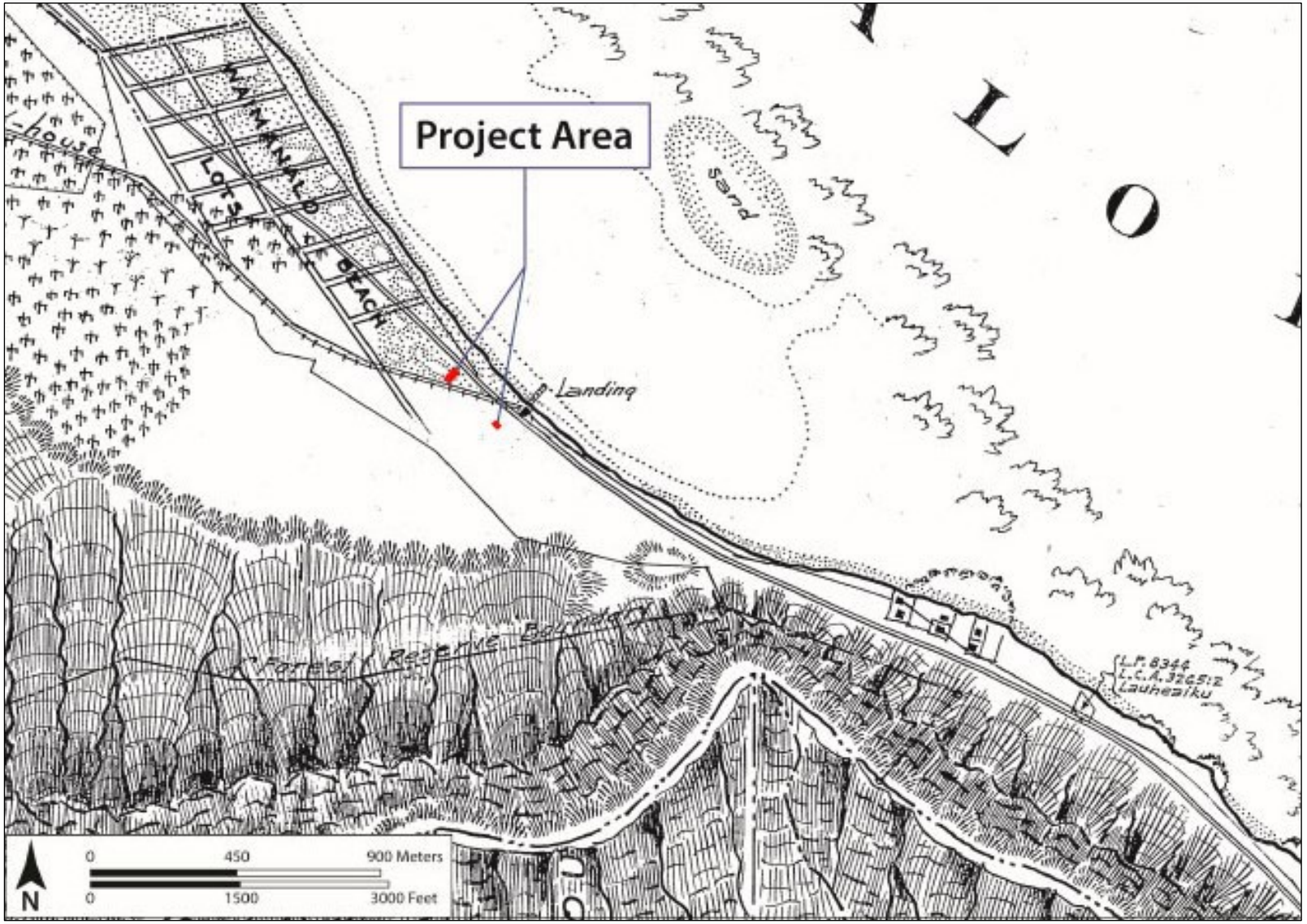

Figure 13. Portion of 1916 HTS (Hawaii Territory Plat) map 2045 (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

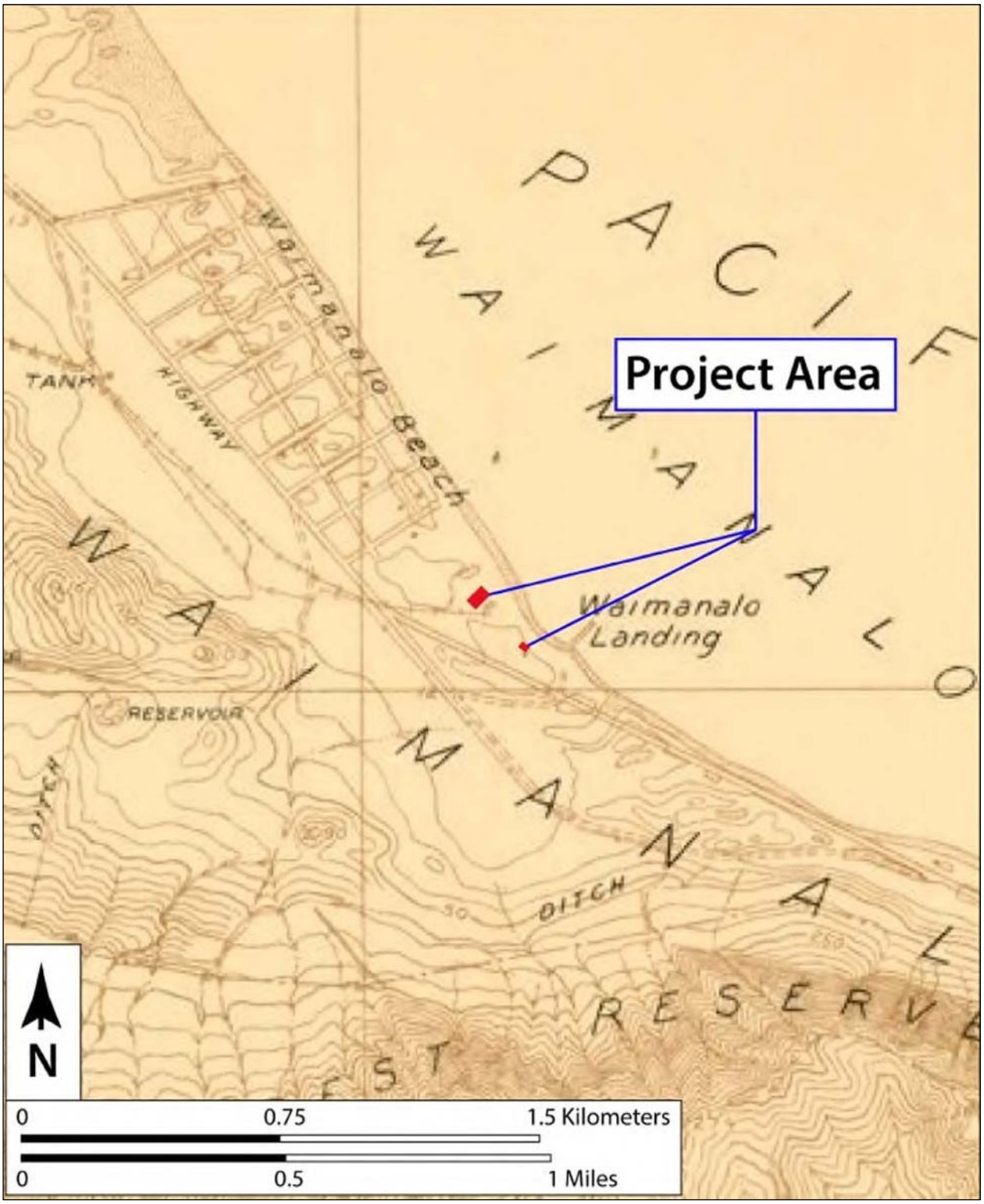

Figure 14. Portion of 1928 USGS topographic map (Koko Head quadrangle) showing project area location (base map source: University of Hawai'i-Mānoa's digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

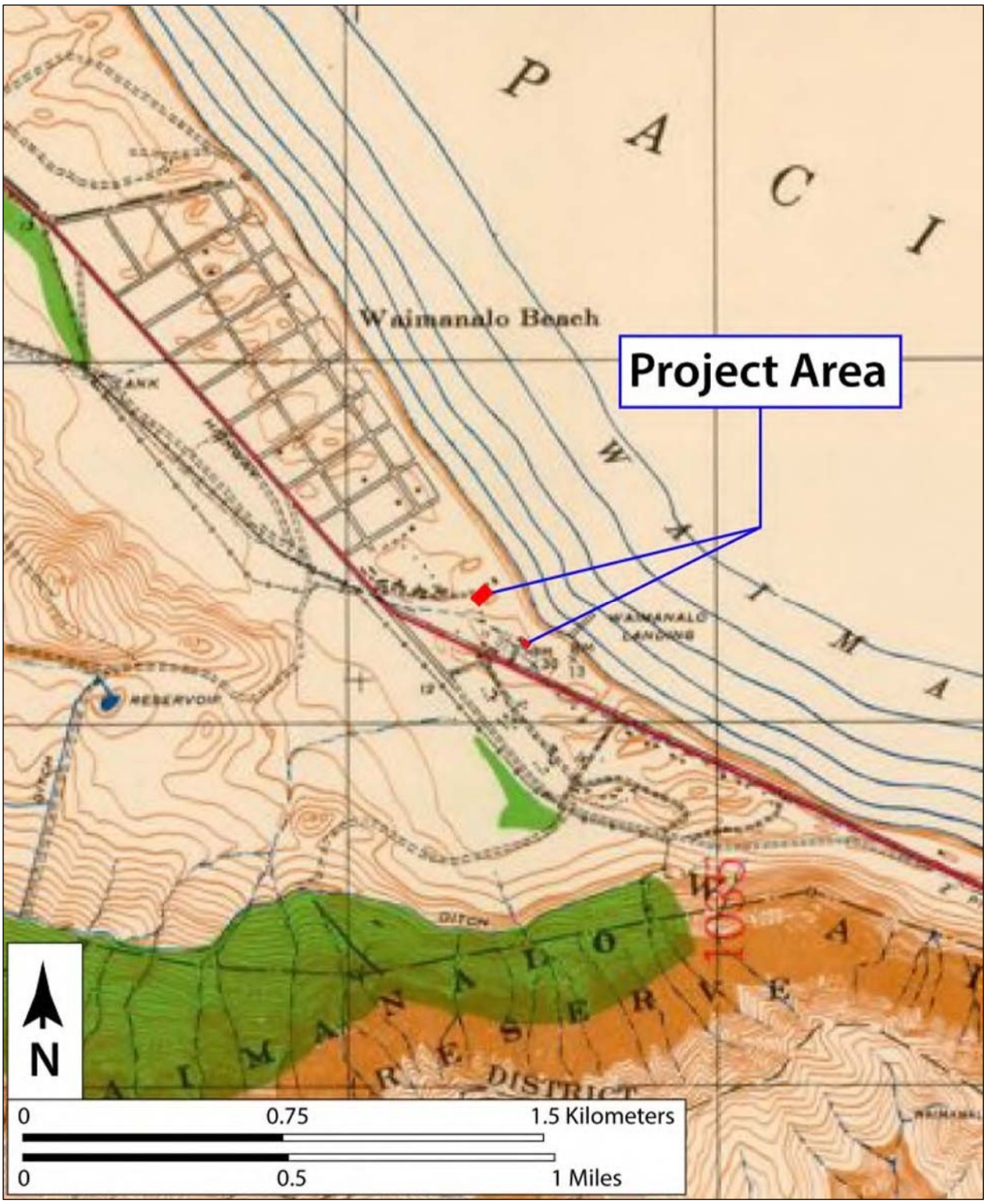

Figure 15. Portion of 1943 USGS topographic map (Koko Head quadrangle) showing project area location (base map source: University of Hawai'i-Mānoa's digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

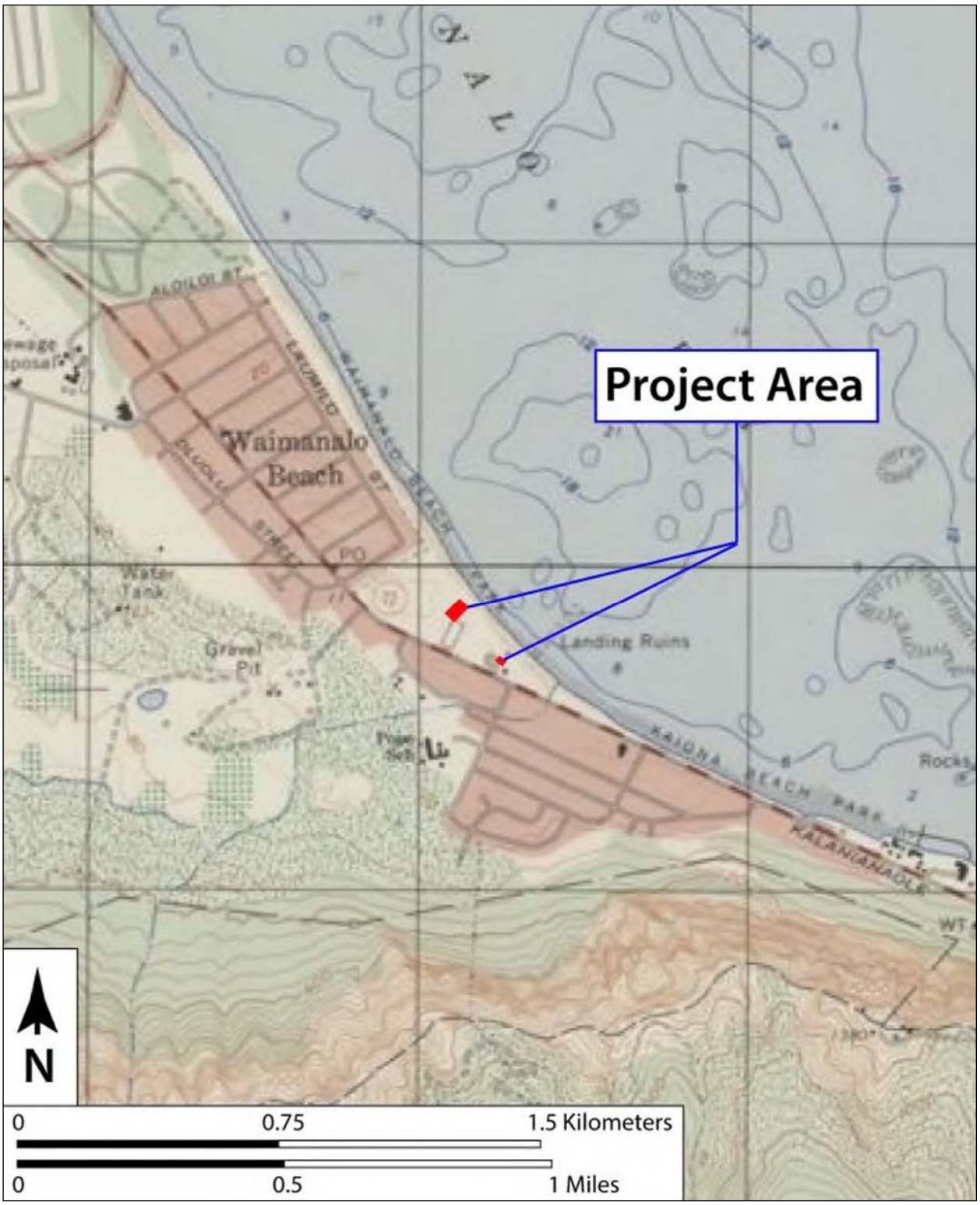

Figure 16. Portion of 1968 USGS topographic map (Koko Head quadrangle) showing project area location (base map source: University of Hawai'i-Mānoa's digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

Figure 11, a portion of 1902 Wall/Donn map, depicts extensive sugar-cane infrastructure throughout much of the ahupua‘a, including a railway along the general right-of-way for today’s Hīhīmanu Street leading down to landing (wharf) that was once located just south of today’s “beach lots.”

Figure 12Error! Reference source not found., a portion of 1914 U.S. military topographic map, shows the project area on the margins of the prime sugar-cane lands of the Waimanalo Sugar Co. including the railway.

Figure 13, a portion of 1916 HTS map, shows the Project Area within the area known as Waimānalo Beach Lots.

Figure 14Error! Reference source not found., a portion of 1928 USGS topographic map, Figure 14, a portion of 1943 USGS topographic map, and Figure 15, a portion of 1968 USGS topographic map, show the Project Area, Waimānalo Beach Lots, and the landing.

4.0 Cultural Resources

This section characterizes archaeological studies and results in and around the project area environs to identify resources that may be of significance to the community. The first subsection provides an overview of studies and results within about one-half mile of the current project area. This is followed by a project-area specific summary. The cultural resources in this section focus primarily on tangible resources and the built environment.

4.1 Archaeological and Historic Sites

From an archaeological perspective, Waimānalo is perhaps best known for evidence uncovered in subsurface contexts at Bellows Air Force Station (BAFS), collected since at least the early 1970s, of very early Hawaiian settlement (the exact dates of which have been under review and debate for some time) and extensive cultural deposits with Hawaiian artifacts and features. For example, State Inventory of Historic Places (SIHP) # 50-80-15-4853 is a 42.5-ha (105.0-acre) discontinuous, stratified, subsurface cultural layer containing abundant traditional Hawaiian artifacts (e.g., adzes, fishhooks, ʻulu maika, hammerstones, coral abraders, and basalt flakes) and features (e.g., fire features, post molds, midden and artifact concentrations), as well as one human burial. A subsurface feature from this site (either an earth oven or fire pit) yielded the earliest radiocarbon date in all the Hawaiian Islands, A.D. 380 660 (Streck and Watanabe 1988; Spriggs and Anderson 1993), although this specific date has been questioned by some archaeologists. Regardless, it is clear that SIHP # 4853 is probably one of the oldest cultural deposits in the islands. Numerous other burials have also been documented in BAFS.

All information on historic sites is primarily discussed in the archaeological documentation.

4.2 Natural Resources with Cultural Significance

Hawaiians, like most indigenous and local communities, ascribe great cultural value to the natural resources in the environment around them.

4.2.1 Wind

Winds, like rain, can be unique and distinctive to an individual location. The most famed of Hawaiian moʻolelo about winds is by Moses Kuaea Nakuina, *Moolelo Hawaii o Pakaa a me Ku-a-Pakaa, na Kahu Iwikuamoo o Keawenuiaumi, ke Alii o Hawaii, a o na Moopuna hoi a Laamaomao* (The Hawaiian Story of Pakaʻa and Kuapakaʻa, the Personal Attendants of Keawenuiaʻumi, the Chief of Hawaiʻi, and the Descendants of Laʻamaomao), published in Hawaiian in 1901. This moʻolelo was later translated into English as *The Wind Gourd of Laʻamaomao* by Sarah Nākoa and Esther T. Mookini (1992). Thus, this important moʻolelo has remained in print for over a century and is an important cultural source text within the discourse on Hawaiian history and natural resource management. Many have written about the gourd's mythical properties, which are believed to contain all the winds of Hawaiʻi. More

than myth, the gourd itself exists in physical form and was last owned by King David Kalākaua. Today, it is held in the collection of the Bishop Museum (Error! Reference source not found.).

According to this moʻolelo, the descendants of Laʻamaomao, the wind god, used the wind gourd, Ka Ipu Makani o Laʻamaomao, to control the winds and cause the demise of their enemies. Pākaʻa and his son Kūapākaʻa, Laʻamaomao's descendants, control the winds by chanting the wind name, which recalls that particular wind from the gourd. Each wind name is associated with a specific ahupuaʻa or ʻāina. Pākaʻa passed on his knowledge of the wind names and the gourd to Kūapākaʻa, who called on all of the winds to destroy the canoe fleet of Pākaʻa's enemies in the Kaiwi Channel separating Oʻahu and Molokaʻi.

4.2.1.1 Limu-li-pu'upu'u

The moʻolelo *The Wind Gourd of Laʻamaomao* documents the wind names of Koʻolaupoko. There are two names from Waimānalo, Limu-li-puʻupuʻu from Waimānalo and ʻAlopali from Pāhonu. This section of the moʻolelo reads:

Holopali is of Ka'a'awa and Kualoa,
Kiliua is of Waikāne,
Mololani is of Kua'a'ohe,
Ulumano is of Kāne'ohe,
The wind is for Kaholoakeahole,
Puahiohio is the upland wind of Nu'uanu,
Malanai is of Kailua,
Limu-li-pu'upu'u comes ashore at Waimānalo,
'Alopali is of Pāhonu,
At Makapu'u the winds turn,
The Kona winds turn, the Ko'olau winds turn

Limulipuʻupuʻu is defined in the Parker revision of the Andrews dictionary (1922) as an ebible seaweed. This seaweed is also referred to as "līpuʻupuʻu."

4.2.2 Rain

In *Hānau Ka Ua: Hawaiian Rain Name*s (2015), C.L. Akana and K. Gonzalez explain the significance of the wind and rain in Native Hawaiian culture:

> In the mind…of our Hawaiian kūpuna [ancestors], every being and everything in the universe was born. Our kūpuna respected nature because we, as kānaka, are related to all that surrounds us—to plants and creatures, to rocks and sea, to sky and earth, and to natural phenomena, including rain and wind. This worldview is evident in a birth chant for Queen Emma, "Hānau ke aliʻi, hānau

> ka ua me ka makani" (The chiefess was born, the rain and wind, too, were born). Our kūpuna had an intimate relationship with the elements. They were keen observers of their environment, with all of its life-giving and life-taking forces. They had a nuanced understanding of the rains of their home. They knew that one place could have several different rains, and that each rain was distinguishable from another. They knew when a particular rain would fall, its color, duration, intensity, the path it would take, the sound it made on the trees, the scent it carried, and the effect it had on people. (Akana and Gonzalez 2015:xv)

To Native Hawaiians, no two rains are ever the same. Rain can be distinguished based on its intensity, the way it falls, and its duration, among other things. This section contains the results of research into rains associated with Waimānalo. The only rain identified to be associated with Waimānalo is the Nāulu Rain, which is the name of a sea breeze, commonly associated with coastal areas throughout the islands. It is likely that there were additional names for rains in Waimānalo, but some of this knowledge may have been lost over time.

4.2.3 Water

Fresh water (wai) is of tremendous significance to Native Hawaiians. It is closely associated with many Hawaiian gods. According to traditional accounts, Kāne and Kanaloa were the "water finders:" "Ka-ne and Kanaloa were the water-finders, opening springs and pools over all the islands, each pool known now as Ka-Wai-a-ke-Akua (The water provided by a god)" (Westervelt 1915:38). Kāne is widely known to be closely associated with all forms of water, as outlined in the mele "He Mele No Kane."

There was no element more important or precious than water. There was no god more powerful than Kāne. Pua Kanahele recounts the oli "'O Kāne, 'o wai ia ali'i o Hawai'i?" and notes of the oli: "The chant begins with Kāne and focuses on this deity as the connective force of all the po'e akua, or god family. All the entities mentioned in each paukū, or verse, are a manifestation of Kāne" (Kanahele 2011:24). The association between water and Kāne is logical considering certain interpretations of Hawaiian mythology identify Kāne as the most powerful of all the Hawaiian gods.

Further investigation into the relationship between Kāne and Pele would be appropriate and helpful. Some interpretations identify Kāne as Pele's father (Westervelt 1915). A full analysis of the different perspectives on Pele and Kāne would be helpful to refining an approach in developing community education programs for geothermal energy and culture. A brief analysis is provided below.

He Mele No Kāne	
E ui aku ana au iā 'oe,	One question I ask of you:
Aia i hea ka Wai a Kāne?	Where flows the water of Kane?
Aia i lalo, i ka honua, i ka Wai hū,	Deep in the ground, in the gushing spring,

I ka wai kau a Kāne me Kanaloa-	In the ducts of Kane and Kanaloa,
He waipuna, he wai e inu,	A well spring of water, to quaff,
He wai e mana, he wai e ola,	A water of magic power- The water of life!
E ola no, ʻea!	Life! O give us this life!

This mele and other moʻolelo are clear: Kāne is water. It is deeply valued among the Hawaiian people. The only exceptions may be mist, known to be associated with Lilinoe, and snow, associated with Poliʻahu. There is an extensive body of traditional knowledge about the expeditions of Kāne and Kanaloa during which Kāne drove his ʻōʻō (digging stick) into the earth in search of water.

Waimānalo in Hawaiian means "potable water". Several streams and springs are located within the ahupuaʻa.

The Pūhā or Waimānalo Stream and the Inoaʻole or Kahawai Stream are located in the ahupuaʻa of Waimānalo. These two streams merge and are often collectively identified as Waimānalo Stream. The stormwater outlet, or "the ditch" that is located further east of the Project Area — past the Canoe Hale, Huli Street, and the Waimānalo Beach camp site — was once called Muliwaiʻōlena. Muliwaiʻōlena is a perennial stream that flows into Waimanālo Bay, and is one of the many wahi pana or sacred places of Waimānalo. These streams are not located in or near the vicinity of the Project Area.

> Three streams feed into Waimanalo Bay. Puha, the old name for Waimanalo Stream, was formerly used for the traditional Hawaiian sport of pure wai (agitated water). Inoa'ole Stream is the second stream that flows intermittently. The last intermittent stream, presently called "the ditch", runs through Hawaiian Homelands, but was once called Muliwaiolena (K.B.A.C., 2007).
>
> Waimanalo Stream is a highly altered waterway that in many ways no longer functions as a stream. It is about 5.5 km in length, and located in the Koolaupoko District on the windward side of the island of Oahu, Hawaii. The stream is in the shape of the letter "Y," with the southeastern tributary identified as Kahawai Stream and the northwestern tributary, named Waimanalo Stream. Unless otherwise noted, the term "Waimanalo Stream" includes both Waimānalo and Kahawai tributaries. The stream water becomes brackish about one kilometer seaward of the confluence of the two tributaries, primarily where the flow has been channelized through the Bellows Field military base (Harrigan and Burr, 2001:9).
>
> In the mean time I had a gang of men at work preparing to open the bar at the mouth of Puha river. This bar or dam had accumulated for some years and much water was backed up. I had seen this opened on a former occasion, and the sports of the natives in swimming the raging waters, and determined to give Her Majesty (Queen Emma) and party a view of this ancient sport... An opening of 20 feet or more having been made in the dam the water rushed out at the rate of 30 knots or more. The bore or surge caused was very high, and only two men and two women dared to play on this

> water-surf called Pue-Wai… The stream in Bellow's Field is Pu-ha. (Sterling and Summers, 1978:145).
>
> This ahupua'a has only one large stream, from which it takes its name, the water of which irrigates the sugar cane now grown on the lower slopes and lowlands. Much of the lowland now under cane was formerly in taro. But wet taro was by no means limited to the lowlands irrigated from the main stream. The old Kamaaina, Edward Niaupio, names nine terrace sections whose water came from small streams and springs flowing out of the high mountain range. These sections ran for 1.5 miles in a semicircle at the foot of the mountains round the broad base of Waimanalo Valley, from below Puu Loa well toward Puu o Kona. Several of these, now covered with brush, were examined and found to be well-preserved. The only taro grown in the district in 1934 was that planted by Edward Niaupio (Sterling and Summers, 1978:243-244).

Waikupunaha, Olomahā, Kupunakane and Kupunawahine Springs are located in the ahupua'a Waimānalo however, these springs are not located in or near the vicinity of the Project Area.

> A spring called Wai-kupanaha was pointed out to us, (in valley mauka of Mill), surrounded by tall taro plants, banana trees and fragrant white gingers. According to Mr. Alona, the Wai-kupanaha on the west side of Mr. Castle's place was a lele, or a part of this kuleana, so both were given the same name. The upland piece was for taro growing and the piece near the sea was for fishing. The former owners of Wai-kupanaha went inland to raise taro and then to their land by the shore to fish. Both places had water but today only the upland Wai-kupanaha has water. This Wai-kupanaha could not be tampered with but left as nature made it. A Japanese used a pipe to draw water from here to his house and the water ceased to flow. The Alona's asked him to remove his pi pe and as soon as he did so, the water flowed once again in abundance. It still feeds some taro patches below as it did in former times (Sterling and Summers, 1978:246).
>
> Levi Chamberlain is quoted (Sterling and Summers, 1962, BK 5, Vol. 2, p. 344) as reporting in 1828 the location of a small and quite poor fishing village near the beach, toward Makapu'u Point from the present Waimanalo town, just beyond which there was a pool named Ka-wai-kupanaha where these people got their fresh water. This has since been covered by the roadway. It is probably adjacent to this site that the remains of a fishing shrine (ko'a) are visible on a point of land just offshore, surrounded by water at high tide (McAllister, 1933, p. 195).
>
> (From mauka towards the Mill) This place was once thickly populated because of a fine old spring. The spring no longer flows and the old house sites still stand in the underbrush (Sterling and Summers, 1978:246).

There are two peculiar springs at Waimanalo, Koolau.poko. The one called Kupunakane is way up in the mountains. The spring called Kupunawahine is a spring way down on the level land. The strange, strange thing about these ponds was that on calm, sunny days they begin to cry out to each other. Their voices were soft and sounded very much like a woman mourning

her husband. On days that were over cast with clouds in the sky, then the water of the moun. tain spring changed. The water of the mountain spring became warm and when you drank the water in the lowland spring it was cool, according to their legend (Sterling and Summers, 1978:247).

4.2.4 Biological Resources

No biological assessment was provided for consideration as part of this CIA.

4.3 Intangible Cultural Resources

It is important to note that Honua Consulting's unique methodology divides cultural resources into two categories: biocultural resources and built environment resources. We define biocultural resources as elements that exist naturally in Hawai'i without human contact. These resources and their significance can be shown, proven, and observed through oral histories and literature. We define built environment resources as elements that exist through human interaction with biocultural resources whose existence and history can be defined, examined, and proven through anthropological and archaeological observation. Utilizing this methodology is critical in the preparation of a CIA as many resources, such as those related to akua, do not necessarily result in material evidence, but nonetheless are significant to members of the Native Hawaiian community.

Hawaiian culture views natural and cultural resources as being one and the same: without the resources provided by nature, cultural resources could and would not be procured. From a Hawaiian perspective, all natural and cultural resources are interrelated, and all natural and cultural resources are culturally significant. Kepā Maly, ethnographer and Hawaiian language scholar, points out, "In any culturally sensitive discussion on land use in Hawaii, one must understand that Hawaiian culture evolved in close partnership with its natural environment. Thus, Hawaiian culture does not have a clear dividing line of where culture ends and nature begins" (Maly 2001:1).

4.3.1 ʻŌlelo Noʻeau

ʻŌlelo noʻeau are another source of cultural information about the area. ʻŌlelo noʻeau literally means "wise saying," and they encompass a wide variety of literary techniques and multiple layers of meaning common in the Hawaiian language. Considered to be the highest form of cultural expression in old Hawai'i, ʻōlelo noʻeau brings us closer to understanding the everyday thoughts, customs, and lives of those that created them. There are no identified ʻōlelo nōʻeau for the immediate project area.

4.3.2 Mele (Songs)

There are numerous mele composed for Waimānalo in more contemporary times, some of which are included below.

The *Buke Mele Lahui* (Hawaiian National Songbook), published in 1895, is "the largest number of political and patriotic Hawaiian songs ever printed in one place," featuring mele that "echo the steadfast resilience of Hawaiians of that time as they weathered the political turbulence of the 1880s and 1890s that completely altered their world" through the overthrow and establishment of a foreign-led provisional goverment and subsequent annexation to the U.S. (Nogelmeier and Stillman 2003:xii).

4.3.2.1 Hanohano No ʻO Waimānalo

Na (by): Kahoʻokeleholu Hannahs
Waipuna "Nāpili" 2014 Poki Records

This mele is a mele pana or a song written about a place. Waimānalo is a beautiful town on the southeastern shores of Oʻahu, and the composer wrote this song to honor the kanaka who live there and their loyalty to their hometown. Within the Hawaiian community, Waimānalo is often referred to as "God's country" thus in the last verse a portion translates to "A land from God."

Hanohano nō ʻo Waimānalo,	*Magnificent indeed, is Waimānalo*
Ka ʻāina hoʻopulapula ē	*The land of the homestead*
E ola, e nā pua o Waimānalo	*Live, O flowers of Waimānalo*
He ʻāina kaulana ē	*A famous land*
E ʻike aku i ka nani	*Behold the beauty*
O ka moku ʻo Mānana ē	*Of Mānana island*
A puni i ke kai hānupanupa	*Surrounded by the surging water*
Me ka nalu hālaʻi ē	*With the calm waves*
E kū haʻaheo, e nā kānaka	*Stand proudly, fellow citizens*
Mai ka ʻāina o Kalanianaʻole	*From the land of Kalanianaʻole*
Ka home nani o nā kānaka maoli	*The beautiful home of the native people*
Ka ʻāina hoʻopulapula ē	*The homestead land*
Eō mai e Waimānalo	*Answer this call, O Waimānalo*
Ka ʻāina mai ke akua ē	*The land from God*
E ola, e nā pua o Waimānalo	*Live, O blossoms of Waimānalo*
He ʻāina kaulana ē	*A famous land*

4.3.2.2 Kaulana ʻO Waimānalo

Na (by): Sam Naeʻole
Sunday Manoa "Guava Jam" 1969 Hula Records

This mele is another mele pana speaking of the beauty of Waimānalo and the residents of this area who cherish this land. The locals thrive in this community on their homestead land while treasuring the stunning views of the high sea cliffs, the bountiful ocean, and the famous surf spot of Makapuʻu which brings them great joy and love of this land.

Kaulana ʻo Waimānalo

I ka pali o Makapuʻu
I ke kai hāwanawana
Hoʻopuni ʻia e nā pali

Hiehie a`o Mānana
Kūkilakila i ke kai
Pōʻai mau ʻia ana
E ke kai hānupanupa

ʻAlawa iho ʻoe
I nā papa heʻenalu
Hiehie ke kūlana
I ka heʻe mālie mai

ʻUi nā ʻāina home
Aʻo Waimānalo
Ua piha me ke aloha
A me ka nui hauʻoli

Haʻina mai ka puana
Kaulana ʻo Waimānalo
I ka pali o Makapuʻu
I ke kai hāwanawana

Famous is Waimānalo
For the cliffs of Makapuʻu
For the whispering sea
Surrounded by cliffs

Outstanding is Mānana
Standing strong in the sea
Encircled always
By the surging sea

Look quickly
At the surfboards
Outstanding the stance
As they glide smoothly

Beautiful the yards and homes
Of Waimānalo
Full of love
And great happiness

The story is told
Famous is Waimānalo
For the cliffs of Makapuʻu
For the whispering sea

4.3.2.3 Hanauma

Mary Kawena Pukuʻi & Maddy K Lam
Kawai Cockett "A Traditional Hawaiian" 1998 Hula Records

Another mele pana speaking of the love for their home of Waimānalo, the relaxing sands of Sandy Beach, the calm gentle sea, the gentle cool breezes, and majestic mountains. As explained in Section 3, Maunalua Ahupuaʻa was once an ʻili of Waimānalo, and Hanauma Bay is in Maunalua.

Mahalo aʻe ana au	*I am admiring*
I ka nani aʻo Haunauma	*The beauty of Hanauma*
Ke kai kūʻono hālaʻi	*A restful bay*
Pōʻai ʻia e nā pali	*Surrounded by Cliffs*
Ua makemake nui ʻia	*Much do I enjoy*
Ke alanui kīkeʻekeʻe	*The winding road*
E iho aku ai i lalo	*That leads downward (to)*
I ke kaha one ākea	*The wide and sandy beach*
He kahua na ka lehulehu	*A place for the public*
E luana hauʻoli ai	*To relax happily*
E hoʻolono like aʻe ana	*To listen together*
I ka leo hone o ke kai	*To the pleasant sounds of the sea*
ʻOluʻolu i ka peʻahi	*Cooled by the fanning*
A ka makani aheahe	*Of a gentle breeze*
E hoʻoluli mālie nei	*That set in motion*
I nā lau aʻo ke kiawe	*The kiawe leaves*
Haʻina mai ka puana	*This ends my song (of praise)*
No ka nani aʻo Hanauma	*For the beauty of Hanauma*
Ke kai kūʻono hālaʻi	*A restful bay*
Pōʻai ʻia e nā pali	*Surrounded by cliffs*

4.3.2.4 Waimānalo Aina Kaulana

Traditional

Many of the songs of Waimānalo were written to honor the homestead lands that the Hawaiians were granted. This mele is in honor of Kalaniana'ole who helped establish the DHHL.

Uluwehi Waimānalo ʻāina hoʻopulapula	*Lush, Waimānalo, homestead land*
Ipu ia like ala ona pua like ʻole	*Its fragrant flowers, incomparable*

Hoʻokahi puʻuwai hoʻokahi manaʻo	*One heart, one thought*
ʻĀina aloha o ka lehulehu	*Land of love for the population*
Hanohano no ʻoe e Kalanianaʻole	*You are the glory of Kalanianaʻole*
Hoʻoko kauoha ʻoe nā ka hana pololei	*You fulfilled the trust with righteous deeds*
Haʻawi ka mae maʻi e ia Waimānalo	
Kokua like mai na mana Kahikolu	*Waimānalo gives health*
	Help and power comes from Trinity
Kū kilakila nā home uʻi	
Me ka kokua a nā mana lani	*Standing strong, the stalwart homes*
	With help from the heavenly powers
Haʻina kēia mele no Waimānalo	
ʻĀina hoʻopulapula no Kalanianaʻole	*Tell this song of Waimānalo*
	Homestead land of Prince Kalanianaʻole

4.3.2.5 Waimānalo Blues

Liko Martin & Thor Wold
Country Comfort "We Are The Children" 1992 Hana Ola Records

Originally, this song was written for Nanakuli "Nanakuli Blues", but when the group Country Comfort recorded this mele, it was changed to Waimānalo Blues and the version has become the more popular version of the song. This song is probably one of the most memorable songs in Hawaiʻi still to this day.

Wind's gonna blow, so I'm gonna go
Down on the road again
Starting where the mountains left me
I'm up where I began

Where I will go, the wind only knows
Good times around the bend
Get in my car, goin' too far
Never comin' back again

Tired and worn, I woke up this mornin'
Found that I was confused
Spun right around and found I had lost
The things that I couldn't lose

The beaches they sell to build their hotels
My father's and I once knew
Birds all along sunlight at dawn
Singing Waimanalo blues

Down on the road with mountains so old
Far on the country side
Birds on the wing forget in a while
So I'm headed for the windward side

All of your dreams, sometimes it just seems
That I'm just along for the ride
Some they will cry because they have pride
For someone who's loved here died

The beaches they sell to build their hotels
My father's and I once knew
Birds all along sunlight at dawn
Singing Waimanalo blues

5.0 Traditional or Customary Practices Historically in the Study Area and Surrounding Area

In traditional (pre-western contact) culture, named localities served a variety of functions, informing people about: (1) places where the gods walked the earth and changed the lives of people for good or worse; (2) heiau or other features of ceremonial importance; (3) triangulation points such as koʻa (fishing markers) for fishing grounds and fishing sites (4) residences and burial sites; (5) areas of planting; (6) water sources; (7) trails and trail side resting places (oʻioʻina), such as a rock shelter or tree shaded spot; (8) the sources of particular natural resources/resource collections areas, or any number of other features; or (9) notable events which occurred at a given area. Through place names knowledge of the past and places of significance was handed down across countless generations. There is an extensive collection of native place names recorded in the moʻolelo (traditions and historical accounts) published in Hawaiian newspapers.

This is not intended to be a comprehensive list of all the practices that historically or contemporaneously occur in Waimānalo. This is meant to show the range of traditional or customary practices that took place in the larger geographic extent. Many of these practices may not have taken place within the project area, although they may actively occur within the larger ahupuaʻa of Waimānalo.

5.1 Moʻolelo

Moʻolelo is the practice of storytelling and developing oral histories for the purpose of transmitting knowledge information and values intergenerationally. Moʻolelo are particularly critical in protecting and preserving traditional culture in that they are the primary form through which information was transmitted over many generations in the Hawaiian Islands and particularly in the Native Hawaiian community.

Storytelling, oral histories, and oration are widely practiced throughout Polynesia and important in compiling the ethnohistory of the area. The Native Hawaiian newspapers were particularly valued for their regular publication of different moʻolelo about native Hawaiian history. Were it not for the newspapers having the foresight to allow for the printing and publication of moʻolelo, far less information about the cultural history of the Hawaiian people would be available today.

There are numerous moʻolelo about Waimānalo and the geographic extent. These moʻolelo are provided in Section 4.0 (Cultural Resources).

5.2 Habitation

Hawaiians lived extensively throughout the islands. Handy, Handy, and Pukui (1991) identify how different kānaka and their ʻohana lived in accordance with what the authors termed "occupational contrasts" (286), meaning that based on occupation (i.e., planter or fisherman, for example), habitation systems differed. They describe, "The typical homestead or *kauhale*… consisted of the sleeping or common house, the men's house, women's eating house, and

storehouse, and generally stood in relative isolation in dispersed communities. It was only when topography or the physical character of an area required close proximity of homes that villages existed. There was no term for village. *Kauhale* meant homestead, and when there were a number of *kauhale* close together the same term was used. The old Hawaiians, in other words, had no conception of village or town as a corporate social entity. The terrain and the subsistence economy natural created the dispersed community of scattered homesteads" (284).

5.3 Travel and Trail Usage

The ability to travel was essential to Hawaiians and enabled their sustainability. Travel, and the freedom to move throughout different areas, had different names, including huakaʻi, kaʻapuni, or kaʻahele. Traveling by sea had distinct names as well, like ʻaumoana. Traveling through the mountains was sometimes referred to as hele mauna. Travel, and moving throughout various places and regions was an essential practice and way of life in traditional Hawaiʻi.

The freedom to travel safely was so important that Kamehameha I would come to pass a well-known law protecting travelers, Ke Kānāwai Māmalahoe (The Law of the Splintered Paddle). It is explained by the William S. Richardson School of Law as follows:

> As a young warrior chief, Kamehameha the Great came upon commoners fishing along the shoreline. He attacked the fishermen, but during the struggle caught his foot in a lava crevice. One of the fleeing fishermen turned and broke a canoe paddle over the young chief's head. The fisherman's act reminded Kamehameha that human life was precious and deserved respect, and that it is wrong for the powerful to mistreat those who may be weaker.
>
> Years later when Kamehameha became ruler of Hawaiʻi, he declared one of his first laws, *Ke Kānāwai Māmalahoe* (the Law of the Splintered Paddle), which guaranteed the safety of the highways to all. This royal edict was law over the entire Hawaiian kingdom during the reign of Kamehameha the Great. Considered one of the most important *kānāwai* (royal edict), the law gave the Hawaiian people an era of freedom from violent assault (William S. Richardson School of Law 2021).

The kānāwai (law) reads:

E nā kānaka	O my people
E mālama ʻoukou i ke akua	Honor thy god

A e mālama hoʻi	Respect alike, the rights of
Ke kānaka nui a me kānaka iki	All men great and humble
E hele ka ʻelemakule	See to it that our aged,
Ka luahine, a me ke kama	Our women, and children
A moe i ke ala	Lie down to sleep by the roadside
Aʻohe mea nana e hoʻopilikia	Without fear of harm
Hewa no, make	Disobey, and die

The law would have such long-lasting resonance that it would be expressly incorporated into the Hawaiʻi State Constitution.[3]

As traveling through traditional trails was the primary means by which people traveled on land throughout most of Hawaiian history, the traditional trail system is particularly important throughout the Hawaiian Islands. Throughout the islands, there were numerous trails that allowed people to access different locations. This trail system was critical not only for maintaining a healthy population and managing this population, but it was also important for the traditional economic system of bartering. The trail system allowed for different localized communities to engage and interact. This also allowed for the trade of goods throughout island communities.

Beach access would be associated with trail usage, and beach access is critical at Waimānalo Beach Park. There is no indicator that the proposed project would limit access, but construction staging should consider the need to allow for continued beach and ocean access.

5.4 Loko Iʻa (Fishponds) and Loko Paʻakai-Kula Ālialia (Salt Making Beds)

Fishponds sites have always been highly valued features of the landscape. Writing about loko iʻa, Kamakau (1976) observed:

> Fishponds, *loko iʻa*, were things that beautified the land, and a land with many fishponds was called a "fat" land (*ʻaina momona*). They date from very ancient times. Some freshwater ponds, *loko wai*, were made when the earth was made, but most of the *loko iʻa* and the shore ponds, *loko kuapa*, were made by *ka poʻe kahiko*.[25] The making of the walls (*kuapa*) of the shore ponds was heavy work, and required the labor of more than ten thousand men. Some of these fishponds covered an area of sixty or seventy acres, more or less. Walls had to be made on the seaward side sometimes in deep water and sometimes in

[3] Article IX. Section 10 of the Hawaii State Constitution reads: "The law of the splintered paddle, mamala-hoe kanawai, decreed by Kamehameha I--Let every elderly person, woman and child lie by the roadside in safety--shall be a unique and living symbol of the State's concern for public safety."

> shallow, and many stones were needed.
>
> Many *loko kuapa* were made on Oahu, Molokai, and Kauai, and a few on Hawaii and Maui. This shows how numerous the population must have been in the old days, and how they must have kept the peace, for how could they have worked together in unity and made these walls if they had been frequently at war and in opposition one against another? If they did not eat the fruit of their efforts how could they have let the *awa* fish grow to a fathom in length; the *ʻanae* to an *iwilei* (yard); the *ulua* to a meter or a *muku* (four and one half feet); the *aholehole* until its head was hard as coral (*koʻa ka lae*); and the *ʻoʻopu* until their scales were like the *uhu*? Peace in the kingdom was the reason that the walls could be built, the fish could grow big, and there were enough people to do this heavy work… (Kamakau 1976:47)

There is a growing community of kiaʻi loko iʻa (fishpond caretakers) in Waimānalo, but those activities would not be impacted by the proposed action and are not near the project area.

5.5 Farming

Since poi was the staple food for Native Hawaiians, it was of the utmost priority for the first settlers to establish loʻi. Kalo's prominence in the Hawaiian diet derived from its nutritional value, but even more so from its mythological significance. According to Hawaiian traditions, the first human (male) was born from the taro plant:

> The first born son of Wakea and Papa was of premature birth and was given the name Haloa-naka. The little thing died, however, and its body was buried in the ground at one end of the house. After a while, a taro plant shot up from the child's body, the leaf of which was named lau-kapa-lili, quivering leaf; but the steam was given the name Haloa.
>
> After that another child was born to them, whom they called Haloa, from the stalk of the taro. He is the progenitor of all the peoples of the earth. (Malo 1951:244)

As discussed in Section 3.2 (Traditional Period) and 3.3 (Historic Period), the area has an extensive history of farming that extends well back into the pre-European contact era. Farming remains a very important part of the Waimānalo community, but there is no evidence farming takes place within the project area itself.

5.6 Traditional Clothing (Clothes Making, Dyeing, and Lei Making)

Kapa (commonly known as barkcloth) was the traditional material made through a traditional method of gathering, treating, and beating plant fibers, often, but not limited to, wauke (*Broussonetia papyrifera*) to make fabric that was used to make lole (clothing). Pacific and Hawaiian kapa was known for its wide range of colors and the application of watermarks.

One article describes the process for making kapa:

> The finest kapa came from the paper of the mulberry tree. These trees were cultivated on plantations and grew to heights of more than twelve feet. As the tree grew, the branches were nipped off along the main trunk, ensuring a long piece of bark which was easily peeled from the tree.
>
> The manufacture of kapa was an important occupation for women. After the bark had been peeled from the tree, the inner bark was separated and soaked in sea water to make it soft and pulpy. The softened bark was placed on an anvil and beaten with a cylindrical wooden beater. The first beating separated the fibers and produced strips about eight or nine feet long and ten to fourteen inches wide. These strips could be dried and stored until needed. When needed, the strips were soaked in water, placed in layers between banana leaves, and left for about ten days to mature by "retting" which is the decomposition and removal of softened tissues, leaving the finer fibers. These partially decomposed layered strips were beaten a second time with specially carved four-sided beaters. The patterns carved on the beaters were functional as they produced the necessary characteristics in the kapa for its end use. These carved designs left the equivalent of a watermark on the kapa.
>
> Kapa which was to be extremely soft and pliable, such as that used for the malo or loincloth, was subjected to an additional softening process. This process, which produced a finely ribbed fabric, was done by dampening the cloth, stretching it over a grooved board, and running a wooden grooving tool along the indentations in the board. When the cloth dried, permanent ribs remained. The hand was very similar to our crinkle gauze of today (Furer 1981:109-110).

In Waimānalo, it is likely that these activities were once pervasive throughout the area. One 1847 description of Waimānalo that appeared in the Hawaiian language newspaper notes:

> At that time, it seemed that the valley was filled with breadfruit, mountain apples, kukui and coconut trees. There was taro patches, with banks covered with ti and wauke plants. Grass houses occupied the dry lands, a hundred of them here and sweet potatoes and sugar cane were much grown. It was a great help toward their livelihood.... The whole ahupuaa of Waimanalo was leased to white men except the native kuleanas and because the cattle wandered over them, they were compelled to

> build fences for protection. The taro patches that were neatly built in the time when chiefs ruled over the people and the land, were broken up. The sugar cane, ti, and wauke plants were destroyed. The big trees that grew in those days, died because the roots could not get moisture. The valley became a place for animals (Sterling and Summers 1978: 244).

Hawaiians were skilled at utilizing plants and materials to dye their clothing and other materials. Different methods would be employed to hō‘awa, extract dye colors from their source material(s). These dyes would be placed in a cup, known as a kā kāpala. Even foreign or exotic plants were utilized for this practice. Hawaiians used different words for the various types of dyeing activities and methods.

- We‘a – a red dye or to print or dye red
- Hili – bark dye, as hili kukui, hili kōlea, hili noni; also kapa dyed with bark or the name for dyeing with the use of bark
- Kūhili – to dye (or stain) by soaking in water containing mashed bark, such as used for nets; also mulberry bark before it is beat into kapa
- Kūpenu – to dye by dipping material
- Ki‘olena – to dye kapa
- Hōlei –native tree (*Ochorosia compta*) related to the hao (*Rauvolfia*), which yields a yellow dye for kapa
- Kīhe‘ahe‘a pala‘ā – dye made from the pala‘ā (Sphenomeria chinensis syn. chusana) fern; pala‘ā also references a kapa made from the māmaki (*Pipturus spp.*) bark which is then dyed a brownish-red with pala‘ā fern

Hawaiians also had a lexicon for the various colors that could be achieved through this traditional practice.

- ‘Ōlenalena – yellow
- Hili – Dark-brown dye made from bark
- Puakai – red
- Nao – dark red
- Pōkohukohu – color made from the noni (*Morinda citrifolia*) root
- ‘Ākala – color made from raspberry or thimbleberry juice
- ‘Ōma‘oma‘o – light green color made from ma‘o leaves

Similarly, lei making was a regular occurance in traditional Hawaii. Anderson-Fung and Maly (2009) write about the traditional practice:

In old Hawai‘i, lei could have important ceremonial functions, such as in religious offerings and for chiefly regalia, but lei were also enjoyed as personal adornment by Hawaiians of all levels of society. The ali‘i (chiefs) and the maka‘ainäna (the common people who tended the land) all wore lei. Even the akua (gods, deities, spirits), it was believed, sometimes wore lei when they walked the land in human form. The following observation by the French botanist Gaudichaud, who visited the islands in 1819, paints a picture of Hawai‘i as a place where the lei was an integral part of everyday life:

> “It is indeed rare to encounter one of the natives of this archipelago who does not have an ornamental plant on his head or neck or some other part of his body…[The] women … change [the plants they wear] according to the seasons, [and for them] all the fragrant plants, all flowers, and even the colored fruits, serve as attire, one after another. …The young girls of the people, those of the island of Hawai‘i especially, seem to be fond of the [kou, Cordia subcordata], a tree very abundant in all the cultivated areas… The young girls of the mountains, who live near the forests, give their preference to the flowers of the [Erythrina (wiliwili) and a species of Canavalia, called ‘awikiwiki], the lively color of which makes magnificent garlands. Such natural attire is much more rich, much more striking, than all the dazzling creations of the elegant European ladies.”

This account and others like it suggest that lei worn for personal adornment were fashioned from the favorite plant materials that were readily available and abundant in the lei maker’s environment (4).

Lei making continues as an important practice today. The making and giving of lei as an expression of aloha to loved ones still regularly occurs throughout the Hawaiian Islands. Practitioners of these crafts actively practice in the Waimānalo ahupua‘a, although there is no indicator that the Study Area is currently used for any of these practices, except for when lei are exchanged at events, but there is no indicated that lei plants would be impacted by the project activities.

5.7 Lā‘au Lapa‘au

Lā‘au lapa‘au is the practice of traditional Hawaiian medicine. For centuries, native Hawaiians relied upon the environment around them to provide them medicine. It is still actively taught and practiced today. Medicinal experts or healers have intimate knowledge about plants and other resources to cure ailments, illnesses and sicknesses. Traditional medicine is practiced by native peoples and local communities around the world. Similarly, Native Hawaiians, over many generations, have learned how to properly care for, utilize, and prepare plants to maintain the community’s health.

It was important to not only have plants and have access to plants but to ensure that these plants were healthy and in good condition. In the list of biological resources, plants with medicinal capacity and components are identified. These resources are cultural resources. They are critical to the ongoing practice of traditional medicine and healing within the Native Hawaiian community. There are still many traditional medicine practitioners in the Hawaiian community and throughout the Hawaiian Islands today. It is a practice that is still taught to the younger generation, and it is a practice that is still honored and utilized in many Hawaiian households throughout the state.

It was important that medicinal plants existed throughout the Hawaiian Islands so that when people traveled throughout different places on in the islands, they would always have access to the medicine they needed. In some cases, some plants were extremely rare, and, in those cases, it was particularly important to make sure that these populations were well protected and well cared for. There were also numerous gods associated with health, healing, and medicine. They are listed in Table 1.

Table 1. Hawaiian Gods Associated with Health, Healing and Medicine

Hawaiian gods associated with health, healing, and medicine (Pukui, 1971)
Hi‘iakaikapolioPele
Lonopūhā
Ma‘iola
Hi‘iakaikapua‘ena‘ena
Hauwahine
Hina
Hina‘ea
Hinalaulimukala
Kamakanui‘ahu‘ilono
Kanaloa
Kū
Kūkeolo‘ewa
Mauliola
‘Ōpeluhuikauha‘ailo

Waimānalo has an active community of healing practitioners. These practitioners actively practice in the Waimānalo ahupua‘a. The nearby Waimānalo Health Center serves as an important hub of this activity.

5.8 Kilo

Kilo are observational traditions and people who examine, observe, or forecast are identified as kilo and serve as traditional climate and weather experts. Kilo “references a Hawaiian

observation approach which includes watching or observing [the] environment and resources by listening to the subtleties of place to help guide decisions for management and pono practices" (ʻĀuamo Portal 2021).

Kilo hōkū are traditional astronomers, or those who study the stars. A hale kilo or hale kilo hōkū were observatories or star observatories respectfully. Kilo makani were those who traditionally observed the winds. Kilo moana were traditionally oceanographers. Kilo ʻuhane were those who observed and communicated with spirits.

Traditionally the practice of kilo or observation was critical to the management of traditional Hawaiian landscapes. This practice is very closely tied to traditional or customary access as observers would require access to specific vistas, viewsheds or areas in order to observe environmental phenomenon.

Puʻu kiloiʻa is located within the ahupuaʻa of Waimānalo and within the Bellows Air Force Station area and not within or near the vicinity of the Project Area.

> Puu-kilo -iʻa (Hill-for-the-sighting-fish) East of Pu-ha, beyond a lone pine tree on the shore is Puu-kilo-iʻa. Here a person stood to see whether a school of fish could be seen and from here he signalled to the men of the canoes where to go in order to surround the schools with the net. Alona, Charles Informant, Sept. 22, 1939 Waimanalo, Oahu Place Names (Sterling and Summers, 1978:244).

As illustrated in the proceeding section, Native Hawaiians created a wide range of terms for the environment and understanding the ecosystems around them. These terms were often quite specific, and many were tied closely to a specific geographic area. This level of specify illustrated the close kinship Hawaiians shared to their surrounding environment. The ability to observe and understand all elements of their ecosystem was essential to both the successful care of natural resources and the survival of the Hawaiian people.

The ability to read weather phenomena effectively and accurately was essential to the ability of Hawaiian people who farm, fish, navigate, and conduct any number of practices in a sustainable and successful manner. The knowledge Hawaiians acquired about their environment around them, including weather phenomena were the result of multi-generational observations that comprised an extensive body of information passed down through oral traditions. The following Hawaiians names and their descriptions of weather phenomena include words for clouds, rains, and winds that are utilized by kilo to help guide activities and practices:

- ao akua – godly cloud, figurative representative of a rainbow.
- ao loa – long cloud or high, distant cloud. Status cloud along the horizon.
- ao ʻōnohi – cloud with rainbow, ʻōnohi, colors contained within it.
- ao puaʻa – cumulus clouds of various sizes piled together, like a mother pig with piglets clustered around her. The Kona coast is famous for ao puaʻa, a sign of good weather and no impending storms.

ao pehupehu – continually growing cumulus typical of summer. Drifting with the tradewinds, these clouds pick up moisture and darken at their base, finally releasing their rain on the windward mountain cliffs.
ho‘omalumalu – sheltering cloud.
ho‘oweliweli – threatening cloud.
ānuenue – rainbow, a favorable omen.
ua loa – extended rainstorm.
ua poko – short rain spell.

5.9 Ceremonial Practices

The ceremonial practices of traditional Hawaiians are extensive. Throughout the course of Hawaii's history, traditional Hawaiians have integrated religious, spiritual, and ceremonial practices in their daily lifestyle. Traditional or customary practices are then not distinct ceremonial practices but rather a part of their way of life. Therefore, it is challenging to define in discrete terms ceremonial practices associated with traditional Hawaiian customs. For the purpose of this section, the ceremonial practices discussed here focus primarily on customs carried out by general populations of Hawaiians, as opposed to activities or rituals carried out by trained and recognized specialists, kahuna. Those practices are discussed in a separate section.

Ceremonial practices are incorporated throughout numerous, if not all, of the activities identified in this section. For example, there is a great level of ceremonial practice and ritual associated with the care of the dead, burial remains, and funerary objects. Native Hawaiians as with most indigenous people integrated ceremony into most of their practices especially those that occurred out in the natural landscape or related to their way of life. There was no specific site or materials required for the ceremony *per se*.

Nonetheless, shrines were sometimes associated with ceremonial practices. Shrines for the purpose of this assessment are distinct from heiau, which were places of worship. Again, the distinction is the nature in which these features or sites were created. Heiau required the advice and guidance of a kahuna, who would help ali‘i determine the best location in which to erect a heiau. Conversely, shrines were erected by maka‘āinana (working class) as part of their daily or occupational functions.

Makahiki is one example of a practice that has taken place prior to contact and continues post-contact and involves ceremonial elements. One of these elements is the akua loa, described by Malo as "the image of the Makahiki god, Lono-makua … This work was called ku-i-ke-pa-a" (Malo 1951: 143). Further described by Malo:

> 22. This Makahiki idol was a stick of wood having a circumference of about ten inches and a length of about two fathoms. In form, it was straight and staff-like, with joints

> carved at intervals and resembling a horse's leg; and it had a figure carved at its upper end.
>
> 23. A cross piece was tied to the neck of this figure, and to this cross piece, kea, were bound pieces of the edible pala[4] fern. From each end of this cross piece were hung feather lei that fluttered about, also feather imitations of the kaupu bird[5], from which all the flesh and solid parts had been removed.
>
> 24. The image was also decorated with a white tapa cloth made from wauke[6] kakahi[7], such as was grown at Kuloli[8]. ... One end of this tapa was basted to the cross piece, from which it hung down in one piece to a length greater than that of the pole. The width of this tapa was the same as the length of the cross piece, about sixteen feet.
>
> 25. The work of fabricating this image, I say, was called kuikepaa. The following night the chiefs and people bore the image in grand procession, and anointed it with cocoanut (sic) oil. Such was the making of the Makahiki god. It was called Lono-makua (father Lono), also the akua loa. This name was given it because it made the circuit of the land (Malo, 1951: 144-145).

The akua loa was taken to each ahupua'a. This custom was important to the care, stewardship, and worship of the gods. These practices were intimately tied to the proper care and sustainable stewardship of all cultural and natural resources.As with many concepts of traditional Hawaiian living and practices, the contemporaneous concept of the kahuna has been largely influenced by Western thought. The roles and responsibilities of the kahuna are well explained by Professor Terry Kanalu Young in his text, *Rethinking the Native Hawaiian Past*, in which he writes:

> As recipients of hana lawelawe[9], the Ali'i Nui were themselves servers of a sort. They were responsible for maintaining a positive spiritual relationship with the Akua through pono conduct. Pono was defined for individuals of that era within the context of a particular task specialty. Kahuna who functioned as experts in specific skill areas like medicinal healing, canoe building, or spiritual advising were consulted by leaders. The

[4] Native fern (*Marattia douglasii)* used for medicinal purposes as well as in ceremony.
[5] Laysan albatross (*Diomedea immutabilis*), written with diacritical markings as ka'upu.
[6] Paper mulberry (*Broussonetia papyrifera*)
[7] Meaning outstanding or of high quality, as in reference to the white kapa (tapa) made from these fibers.
[8] Likely a reference to the place in Pelekunu Valley at Kamalō, Moloka'i, located between the peaks of Kaunuohua and Pēpē'ōpae.
[9] Hana lawelawe are defined by Young as "service tasks" by which kaukau ali'i (lower ranked chiefs) served the Ali'i Nui (high chiefs). These hana lawelawe were critical to the ability of the Ali'i Nui to effective govern (Young 1989).

experts were looked to as responses for what was considered pono in their respective realms of knowledge (Young, 1998).

Kahuna were critical to traditional Hawaiian lifeways as their extensive expertise helped to provide sound and strategic advice to aliʻi and other leaders on proper spiritual, cultural, and ecological management. There are numerous types of kahuna in Hawaiian traditions. including, but not limited to:

kahuna ʻanāʻanā - sorcerer who practices black magic and counter sorcery

kahuna aʻo - teaching preacher, minister, sorcerer.

kahuna hāhā - an expert who diagnoses, as sickness or pain, by feeling the body.

kahuna haʻiʻōlelo - preacher, especially an itinerant preacher.

kahuna hoʻohāpai keiki - medical expert who induced pregnancy.

kahuna hoʻopiʻopiʻo - malevolent sorcerer, as one who inflicts illness by gesture.

kahuna hoʻoulu ʻai - agricultural expert.

kahuna hoʻoulu lāhui - priest who increased population by praying for pregnancy.

kahuna hui - a priest who functioned in ceremonies for the deification of a king.

kahuna kālai - carving expert, sculptor.

kahuna kālai waʻa - canoe builder.

kahuna kiʻi - caretaker of images, who wrapped, oiled, and stored them, and carried them into battle ahead of the chief.

kahuna kilokilo - priest or expert who observed the skies for omens.

kahuna lapaʻau - medical doctor, medical practitioner, healer. Lit., curing expert.

kahuna makani - a priest who induced spirits to possess a patient so that he might then drive the spirits out.

kahuna nui - high priest and councilor to a high chief; office of councilor.

kahuna poʻo - high priest.

kahuna pule - preacher, pastor, minister, parson, priest. clergyman. Lit., prayer expert.

kahuna pule kaʻahele - preacher

kahuna pule wahine - priestess

Makahiki is held at Hūnananiho and there are efforts through the Hawaiian Civic Club of Waimānalo to move Makahiki from Hūnananiho to Kapuʻa (K. Kama-Toth, interview, October 19, 2023). This village (Kapuʻa) and stream mouth (Muliwaiʻōlena) were located directly makai (more of less due northeast) of the current Project Area, just inland of the coast. Just inland of this village and stream mouth was another wahi pana known as Puʻu Molokaʻi, a place where people from that island settled and eventually became integrated into the greater Waimānalo community (Sterling and Summers, 1978, 256).

5.10 Haku Mele, Haku Oli, and Hula

Haku Mele, Haku Oli, and Hula are practices related to the composition and expression of songs and chants. This practice has existed for many centuries within the Hawaiian culture and became the primarily medium for oral traditions, knowledge and information to passed from one generation to the next. As Donaghy (2013) notes, Hawaiians had hundreds of terms associated with this practice.

Songs and chants are largely influenced by the environment around them. As a pedagogical device it was important if not imperative that these songs or chants effectively captured data from the environment around the composer and passed on this information for others to utilize when managing natural resources. In a very real sense, the land and natural resources act as a muse for composers. The category of songs that provide information on or speak to natural resources are called mele ʻāina (songs of the land). As shown in the previous section, there are numerous traditional chants and songs about the project area and its surrounding landscape.

Much like mele and oli, hula serves as a way of both honoring a place and telling the story of place. Many hula, especially those based on mele ʻāina, require intimate understanding of the place where the mele was composed, including the natural elements of that ʻāina. Hula hālau will regularly take huakaʻi, or journeys, to visit and honor the place a particular mele speaks of. The ability to visit the place and learn about it is important to the practice of hula.

Hula, as well as mele or oli, are also offered as gifts to kupuna or gods. This practice also requires access to traditional sites. Associated with hula would have been the practices of lei making and the use of plants to dye clothing.

5.10.1 Gabby Pahinui Waimānalo Festival

The Gabby Pahinui Waimānalo Festival deserves special recognition in this assessment. The event occurs at Waimānalo Beach Park and utilizes the facilities to be improved. The family maintains a website about the event, which reads in part.

> The day-long musical celebration is a long time dream of Cyril Pahinui, one of Gabby's six sons and a pretty good musician himself.
>
> During Gabby Pahinui's life, weekends at the Pahinui home in Waimanalo were a continuous jam session, dozens of musicians, both young and old, came by to jam with "the Master". Memorable guests included slack key masters Leland "Atta" Isaacs, Sonny Chillingworth, and Ray Kane, along with David "Feet" Rogers, Joe Marshall, Jessie Kalima, Palani Vaughan, and ukulele virtuoso Peter Moon to name only a few.
>
> With a welcoming pot of beef stew and rice always on the stove, the Waimanalo home became the perfect setting for a rejuvenation of Hawai'i's musical traditions. As Gabby's fame grew, attendance at the weekend jam sessions mushroomed — sometimes hosting a hundred or more musicians and fans. The jam sessions would begin early on Friday morning and continue straight through to Monday morning.
>
> Following Gabby's passing in the early 80's, Kanikapila sessions were founded at "Pop's" Gabby Pahinui's namesake Waimanalo Park Pavilion to feature and perpetuate his Hawaiian style kihoʻalu-slack key music. The Pahinui Ohana wants to acknowledge Waimanalo as a focal point of Kihoʻalu and Hawaiian music by reestablishing these musical gatherings and their ability to perpetuate, and preserve the uniqueness of Hawai'i's musical identity. And most importantly to recognize Gabby's contribution at the building dedicated in honor of him and everything he stood for. His music has no time it is still played everywhere and still holds its own as strong as ever (Gabbypahinui.com, 2023).

There are mele pana about Waimānalo that have been identified in Section 4.3.2., and the Gabby Pahinui Waimānalo Kanikapila Hawaiian music festival has historically been held at the Waimanalo Beach Park and Pavilion. As explained in interviews with community members in Section 6.0, the community event gathers musicians and performers for Hawaiian music, hula, chanting. The absence of the pavilion is an adverse issue because the pavilion was once a gathering space for cultural events and activities. The Waimānalo Beach Park Pavilion was dedicated in honor of Gabby Pahinui.

Figure 17. Gabby Pahinui (center) playing Hawaiian music with family, friends, and fellow musicians. These backyard pa'ina are a celebrated tradition in Hawaii and would become the inspiration for the existing Hawaiian music festival held in Pahinui's honor.

6.0 Ethnographic Data

As discussed previously in Section 2.6 (Ethnographic Methodology), information was collected from a wide range of individuals and sources. The findings of those efforts are discussed in this section. Ethnographic data is utilized to supplement the other research methods utilized. It is one of a range of research tools employed to gather information about the project area.

Honua Consulting was tasked with gathering information from individuals with lineal and cultural ties to the area and its vicinity regarding regional biocultural resources, potential impacts to these biocultural resources, and mitigation measures to minimize and/or avoid these impacts.

The bulk of the historic ethnographic data and new information gathered from practitioners and kūpuna as part of this CIA were drawn from native testimonies and Hawaiian language sources and integrated into the cultural and historic overview section of this assessment. Those sources, along with responses to this project, were considered when researching the traditional or customary practices discussed in a previous section. Interviews were conducted with five (5) individuals. Initial interviews were conducted with members of the Pahinui family who recommended other individuals to interview. Additionally, Honua Consulting staff attended the public meeting and contacted any persons from that meeting who identified themselves as wanting to participate in an interview. While not all individuals responded to this request, all were given the opportunity to participate. This ethnographic data helped to identify additional resources and practices in the area; this information also helped to confirm research conducted for this report.

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6.1 Interview with Chelle Pahinui

Interviewer: Mathew Sproat
Interviewee: Chelle Pahinui
Date: September 10, 2023
Location: via telephone

Biography

Chelle Pahinui is the widow of Hawaiian Musician and slack key guitarist, Cyril Pahinui. Cyril is the son of Hawaiian music legend and father of modern slack-key guitar, Gabby Pahinui. Mrs. Pahinui was born and raised in the Continental U.S. She returned to Hawai‘i in 1983, and currently resides in Kailua-Kona, Hawai‘i. Mrs. Pahinui obtained her PhD in Hospitality, Tourism and Marketing from the University of Victoria at Melbourne, Australia. She retired after 27 years as a Professor at the University of Hawai‘i at Hilo where she taught Tourism.

Overview

Mrs. Pahinui is associated with the project area as she operates the annual Gabby Pahinui Waimānalo Kanikapila, which is held at the Waimānalo Beach Park where Mayor Frank Fasi dedicated the pavilion in Gabby Pahinui’s name.

General Discussion

Mrs. Pahinui provided an overview of Gabby and Cyril’s music careers, the history of the Gabby Pahinui Waimānalo Kanikapila, and the pavilion.

Cultural Resources

Mrs. Pahinui is not aware of any cultural resources in the project area. While plans to redevelop the Pavilion have been modified, she notes that the current plan requires little ground disturbance. Mrs. Pahinui mentioned previous ground disturbance in the area including grading, and the installation of grass and sprinklers, parking, existing structures and the Pavilion’s concrete slab. She also notes that the ironwood trees are not native. Mrs. Pahinui also notes the fishing stone located further East towards Makapu‘u but does not know of any cultural resources in the project area.

Traditions and Customs

Mrs. Pahinui shared the significance of the Gabby Pahinui Waimānalo Kanikapila, its history, and why it is and has always been held at the Waimānalo Beach Park and the Gabby Pahinui Pavilion. She notes the partnership that her organization has with Windward Community College, and their hopes to bring Winward Community College programs to the pavilion and outreach to the broader community. Mrs. Pahinui also notes the Waimānalo Canoe Club, which serves as a cultural resource and tradition for the community. The project would be an

enhancement as the restrooms, comfort stations and pavilion would be functional for community events including athletics.

Impacts

Mrs. Pahinui comments that impacts of this project would not be greater than any previous disturbance. She believes that the project would be more of an enhancement than a negative impact.

Mitigation Measures and Recommendations

Mrs. Pahinui recommends the plaque that was dedicated to Gabby Pahinui and is located on the pavilion, remain. She comments that the plaque honors Gabby who is a family treasure and a legacy and warns that the Pahinui ʻohana will be very displeased if the plaque is destroyed or removed; they will come down and tie themselves to the wall.

Mrs. Pahinui notes that Cyril Pahinui was notified by Miles at the City's Department of Parks and Recreation when the City decided to tear down the building. Cyril wrote a letter to the Department of Parks and Recreation that the Pahinui ʻohana wanted the pavilion wall to remain, and Miles facilitated circulating the letter to the appropriate individuals. Mrs. Pahinui has a copy of this letter.

Kawika Kahiapo was involved in a mural, however the mural was eventually installed at the Waimānalo Feed Supply, done by Mana Mele, and looked nothing like the original concept. The Pahinui ʻohana's concept was to install bronze statues with several musicians playing music in a circle that would be located in the park and surrounded by seating. The cost for the group of bronze statues was expensive, so it was decided to have one sculpture of Gabby Pahinui. The ʻohana wrote a letter indicating that it would be happy to mālama the park and coordinate fundraising to revive the building. Outrigger Resorts & Hotels offered to fund the fabrication and installation of the statue, but Outrigger wanted the statue to be installed at the Waikiki Beach Walk. Many community members including musicians are in support of restoring the building and pavilion.

6.2 Interview with Rhonda Burk

Interviewer: Mathew Sproat
Interviewee: Rhonda Burk
Date: October 5, 2023
Location: via telephone

Biography

Rhonda Burk is a business owner and operator who was born and raised in Waimānalo and currently resides in Kailua, Oʻahu. Ms. Burk is a co-producer of the annual Live from Waimānalo concert / Cyril Pahinui Waimānalo Kanikapila. Ms. Burk is also a paddler and is Vice President of the Waimānalo Canoe Club.

Overview

Ms. Burk is associated with the project area because she produces the annual Live from Waimānalo concert / Cyril Pahinui Waimānalo Kanikapila. Ms. Burk is also the Vice President of the Waimānalo Canoe Club.

General Discussion

Ms. Burk provided an overview of the annual Live from Waimānalo concert / Cyril Pahinui Waimānalo Kanikapila, a community event that gathers 70 to 120 musicians and performers for Hawaiian music, hula, chanting, other cultural and community activities and booths. She notes the partnership her organization holds with the Windward Community College including scholarships that Windward Community College sponsors at the event. The Waimānalo Canoe Club is also a sponsor of the event. Ms. Burk prefers that the event and activities be held in the pavilion for various reasons including protection from the elements.

Cultural Resources

Ms. Burk is not aware of any cultural resources in the project area, however she notes that the project area was a sand dune and traditionally a burial ground; there is a high probability of discovering ʻiwi or human burial remains within the vicinity of the project area because families have always lived along the shoreline. Ms. Burk comments that there are no fresh water sources in the area but notes the brackish water/stormwater output near the Hale Waʻa further east of the project area. Ms. Burk has always seen Kōlea, monk seals, and honu on the beach fronting the project area, but is not aware of any nesting of these species within the project area or vicinity. Ms. Burk notes that the shoreline is not too far away, however it's fairly sandy and she has no concerns with potential impacts to the reef or limu in the specific area fronting the pavilion. Further out into the ocean there is a reef with a lot of marine wildlife. She does not know of any historical resources but notes the concrete slab that the City had paved, which was opposed by the community and kupuna.

Traditions and Customs

Ms. Burk shared the significance of the annual Live from Waimānalo concert / Cyril Pahinui Waimānalo Kanikapila. The event gathers musicians and cultural practitioners including the Limu Hui, lei net makers, and food booths among many cultural performances. The event also attracts people from around the world including the continental U.S. and Japan. Ms. Burk notes that there is long line fishing on the shore fronting the project area. She learned to swim in the area and would catch sand turtles for bait.

Impacts

Ms. Burk comments that there would be no adverse effects to existing resources in order to rebuild the pavilion, and that the absence of the pavilion is an adverse issue. The pavilion was once a gathering space and since its fall into disrepair there have been no gatherings or cultural movements taking place in its absence. The uncovered concrete slab is unsafe and not user-friendly, and offers no protection from the elements including the sun and heat. She had to bring in tents for the event, which was costly. Ms. Burk has contemplated relocating the event further east to where the regatta is held because there is shade from trees, and restrooms. There is currently no water access at the pavilion, which is also an issue. The bathrooms are in disrepair, and there is currently only one usable toilet for both restrooms. Ms. Burk notes that she has had to clean the public restrooms prior to events, which has included removing towels and shoes from toilets. She has had to order porta potties for events which have been costly.

Mitigation Measures and Recommendations

Ms. Burk supports rebuilding a pavilion that is durable, user-friendly, with adequate lighting and a design that is a bit more natural, noting the many cultural events that take place. She recommends the consideration of acoustics in the design of the pavilion noting that the previous pavilion was functionally perfect and offered great acoustics and protection during the event.

Ms. Burk comments that it is critical to be sensitive to what already exists in the project area including the baseball diamond, which is often used by the community. She stresses that management of the facility is critical, and there is a need to prioritize maintenance and cleaning of the facilities and restrooms.

Ms. Burk comments that access to water must be restored. She recommends the installation of solar as the event has to bring in generators, which has been costly. Ms. Burke further comments that the Pahinui family wishes for the pavilion plaque to remain, noting that the plaque was showcased by Sony on T.V., and visitors from Japan come to see the plaque.

6.3 Interview with Kukana Kama-Toth

Interviewer: Mathew Sproat
Interviewee: Kukana Kama-Toth
Date: 10/19/2023
Location: via telephone

Biography
Kukana Kama-Toth is a Community Advocate, and a Program Specialist with Alu Like, Inc. Mrs. Kama-Toth was born and raised in Waimānalo and resides within close proximity to the project area.

Overview
Kukana Kama-Toth is associated with the project area as a lifelong resident of Waimānalo, community advocate, and frequent user of the project area. Mrs. Kama-Toth currently lives in close proximity to the project area, as a DHHL lessee in the same home in which she grew up. Mrs. Kama-Toth reminisced of her childhood including Summer Fun where much time was spent, and many memories were created at the Waimānalo Beach Park and Pavilion. She comments that the area is her home beach, and her front yard.

General Discussion
Mrs. Kama-Toth shared the significance and importance of the area, and provided comments on the project.

Cultural Resources
Mrs. Kama-Toth is not aware of any cultural resources in the project area, noting that the area was previously developed. She comments that there are sand dunes located between the project area and the ocean, and she comments that there is a high probability of discovering iwi kūpuna if the project operates outside of its footprint or requires further ground disturbance. Mrs. Kama-Toth further notes the presence of naupaka. She comments that there used to be kaunaoa, however it is rarely seen nowadays. She also notes that the City Parks Department is mindful of certain native species to where the community goes without lighting at the park for some parts of the year in order to mitigate impacts to migrating fowl and mammals including the ʻŌpeʻapeʻa (Hawaiian Hoary Bat); this is seasonal, and usually in the Fall.

Traditions and Customs
Mrs. Kama-Toth explains that the area was once the fishing village of Kapuʻa where these fishing grounds were waiwai (rich and abundant). Fishing still takes place in the area. Mrs. Kama-Toth communicated her desire to restore the place name, Kapuʻa. She also notes of the Waimānalo Canoe Club commenting that her children have paddled there. Mrs. Kama-

Toth stated that there are efforts through the Hawaiian Civic Club of Waimānalo to bring back Makahiki, moving it from Hūnananiho to Kapu‘a.

Mrs. Kama-Toth comments that the project area has been a gathering place for Waimānalo, Hawaiians, and particularly homesteaders and DHHL lessees living within close proximity. She further comments that those living on this side of the Polo Field might hold this place more dear than those living on the other side of the Polo Field. She notes that the area remains a gathering place for ohana and for events including Summer Fun, La Hoihoi Ea, and La Kuokoa. Mrs. Kama-Toth comments that the community is still trying to establish cultural space holding and utilize areas like Kapu‘a, Kaiona, and Makapu‘u. She states that the area is known for Hukilau.

Mrs. Kama-Toth notes that Muliwai‘ōlena is located not far from the area, and that there is a mo‘olelo that inspired the street names in the “new” (however, built 30 or so years ago) DHHL Homestead subdivision located just across from the Waimānalo Beach Park. She recommends interviewing Kalani Kalima for mo‘olelo associated with the area.

Impacts

Mrs. Kama-Toth comments that the project would be an improvement, and would strengthen community, families, and cultural practices, noting that the area is a gathering place for ‘ohana more often than the Gabby. She recommends that the project be constructed as soon as possible as the facility has been in disrepair.

Mrs. Kama-Toth believes that there will be no adverse effects or negative impacts to cultural or customary practices or resources, however she stresses the importance of being mindful of the potential for encountering iwi kupuna should the project require further ground disturbance and/or operate outside of the existing footprint. Mrs. Kama-Toth recommends redesign should there be an encounter, and that processes and space are created to protect and care for cultural and historic resources including iwi.

Mitigation Measures and Recommendations

Mrs. Kama-Toth recommends that the rock wall remain in place or be enhanced along with restoring electrical and water access. She emphasizes the need to remain mindful of the possibility of encountering iwi kupuna, and she recommends that heavy equipment and project activities operate within the project footprint, and not go past the naupaka.

6.4 Interview with Kawika Kahiapo

Interviewer: Mathew Sproat
Interviewee: Kawika Kahiapo
Date: 10/18/2023
Location: via telephone

Biography

Kawika Kahiapo is a Hawaiian musician and entertainer, carpenter, and ordained Kahu (minister). Mr. Kahiapo was born and raised in Kaneohe but has lived in Waimānalo Homestead for the past 15 years.

Overview

Mr. Kahiapo is associated with the project area as a resident of Waimānalo, frequent user of the project area, and participant in the annual Waimānalo Kanikapila, which has historically been held at the Waimānalo Beach Park and Gabby Pahinui Pavilion.

General Discussion

Mr. Kahiapo states that his family would go to Waimānalo for gatherings. He recalls canoe club races, barbecues, concerts, carnivals, and many more indelible memories in Waimānalo and at the beach park and pavilion. Mr. Kahiapo comments that the park and pavilion are landmarks and a common gathering place for many who reside in and outside of Waimānalo.

Mr. Kahiapo notes that Gabby and Cyril Pahinui lived Kanikapila, and that many jam sessions were held at their garages and in the park pavilion including the annual Gabby/ Waimānalo Kanikapila, an event in its 12th year and which holds great importance for local musicians including Mr. Kahiapo; all that are involved in the annual event cherish the opportunity to give back to the community. The event attracts Hawaiians, residents, and visitors from the U.S. Mainland and Japan.

Cultural Resources

Mr. Kahiapo notes that Waimānalo was once densely populated and fertile with fresh water and loʻi; what we see today is a stark difference from what once used to be.

Mr. Kahiapo provided an overview of his involvement with various campaigns that help to positively affect youth, education, and aina including a stand to protect Hūnananiho, a wahi pana and Puʻuhonua within close proximity to the project area. Mr. Kahiapo was told that iwi found at Hūnananiho predate any iwi discovered in these islands, and he believes that first human contact in these islands occurred at Hūnananiho. The significance of the project area is no different than that of Hūnananiho, and Mr. Kahiapo confidently states that there is the

high probability of discovering cultural resources including iwi kūpuna and sites of importance or historical significance, as is the case throughout Waimānalo and Hawaii pae aina.

Mr. Kahiapo notes of the destruction of sites like Mokuʻula on Maui, and the need to continue conversations to minimize impact and avoid further desecration as we begin to restore and refurbish sites including the pavilion at Waimānalo.

Traditions and Customs

Mr. Kahiapo shared the significance of the Gabby Pahinui Waimānalo Kanikapila. Mr. Kahiapo also notes of Hukilau taking place in the area. Friends of Mr. Kahiapo's, the Stitch family who reside in Hale Pōhaku on the makai/north-west border of the beach park have shown him black and white video of Hukilau. Mr. Kahiapo also comments that fishing still takes place in the area. He reminds us of the need to continue dialogue in planning forward while remaining conscious of the past.

Impacts

Mr. Kahiapo is knowledgeable of planning and construction processes, notes of his construction experience and of his participation in discussions with the neighborhood board and developers where he raises questions about impact, architecture, utilities, structural and foundation. He believes it is safe to say that the project will operate within its existing footprint but is mindful of the potential need for additional and/or subsurface work and improvements that would best serve the needs of the facility (i.e. utilities). Mr. Kahiapo believes that the project will not have negative impacts but there is still a high probability of discovering cultural and historic resources and sites of significance including iwi.

Mitigation Measures and Recommendations

Mr. Kahiapo comments on the need to continue conversations with various stakeholders including the community on a design that is culturally relevant, and how to best manage the facility. He reiterates the significance and importance of the area and the need to maintain community connections, cultural relevance and importance; and ensuring that these bridges remain intact.

Mr. Kahiapo recommends that the rock wall with the Gabby Pahinui plaque remain in place or be enhanced. He suggests a memorial that includes the history of Gabby. He also recommends restoring electrical and water access.

6.5 Interview with Sheyanne Adviento

Interviewer: Mathew Sproat
Interviewee: Sheyanne Adviento
Date: 10/12/2023
Location: via telephone

Biography

Sheyanne Adviento is a Truck Driver/Operator with the City and County of Honolulu. Ms. Adviento was born and raised in Waimānalo. She grew up on Humuniki Street and currently resides on Oluolu Street.

Overview

Sheyanne Adviento is associated with the project area as a lifelong resident of Waimānalo. Her grandmother was also the Caretaker and Recreation Director for Waimānalo Beach Park working alongside Eric Bunyan at the Waimānalo Gymnasium. Ms. Adviento's grandmother retired after 35 or so years. Ms. Adviento worked alongside her grandmother during summers as a Junior Leader, Youth Worker, and Summer Aide while working on Summer Fun, Alu Like, and other youth programs.

General Discussion

Ms. Adviento shared her association with the project area and provided comments on the project.

Cultural Resources

Ms. Adviento states that as far as she knows and as long as she has worked in the area, she is not aware of any discoveries of iwi in the project area. However, she acknowledges the probability of encountering cultural and/or historic resources including iwi should the project be modified or require further ground disturbance. Ms. Adviento recommends that cultural monitors be on-site during any construction activities. In the event of the discovery of any iwi, Ms. Adviento recommends that all work activities be put to a stop and resource(s) are secured, tested, and/or protected. Ms. Adviento also recommends a redesign should the project encounter any iwi kupuna, and protective measures to ensure the safety and security of iwi.

Traditions and Customs

Ms. Adviento is not aware of any mo'olelo associated with the project area. She knows that fishing still takes place in the area. Ms. Adviento acknowledges that the Waimānalo Canoe Club is located nearby, but on the other side of the parking lot.

Impacts

Ms. Adviento believes that there will be no adverse effects or negative impacts to cultural or customary practices or resources, however she acknowledges the probability of encountering cultural and/or historic resources including iwi should the project be modified or require further ground disturbance. Ms. Adviento recommends redesign should there be an encounter, and that processes and space are created to protect and care for cultural and historic resources including iwi.

Mitigation Measures and Recommendations

Ms. Adviento believes that the general sentiment is that the community would like to see the pavilion rebuilt and maintained for future generations, noting that the area has been a gathering place for ʻohana, events like the Gabby, carnivals, and sporting events. Ms. Adviento recommends that electrical access be restored, and processes be in place to prevent abuse. Ms. Adviento recommends the use of stormwater socks to prevent runoff and recommends that all equipment and contaminated water be properly secured and handled.

7.0 *Ka Paʻakai* Analysis

It has long been the law of the land that the State of Hawaiʻi has an "obligation to protect the reasonable exercise of customary and traditionally exercised rights of Hawaiians to the extent feasible" *Public Access Shoreline Hawaiʻi v. Hawaiʻi County Planning Commission ("PASH")* 79 Hawaiʻi 425, 450 n. 43, 903 P.2d 1246, 1271 n. 43 (1995). In 2000, in the *Ka Paʻakai* decision, the Court established a framework "to help ensure the enforcement of traditional and customary Native Hawaiian rights while reasonably accommodating competition private development interests." 94 Hawaiʻi 31, 35, 7 P.3d 1068, 1972 (2000). This analysis is used here to fulfill the goal of this CIA (Section 1.4). It is also important to note that as more agencies have taken more careful consideration of their obligations under *Ka Paʻakai*, it is important to provide a thorough and thoughtful analysis, making providing context of these analyses increasingly important.

Based on the guidelines set forth in *Ka Paʻakai*, the Hawaiʻi Supreme Court provided government agencies an analytical framework to ensure the protection and preservation of traditional and customary Native Hawaiian rights while reasonably accommodating competing private development, or other, interests. The Court has stated: "that in order to fulfill its duty to preserve and protect customary and traditional Native Hawaiian rights to the extent feasible, as required by Article XII, Section 7 of the Hawaiʻi Constitution, an administrative agency must, at minimum, make specific findings of fact and conclusions of law as to the following:

1) The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project 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 to reasonably protect Native Hawaiian rights if they are found to exist. *Ka Paʻakai*, 94, Hawaii at 47, 7 P.3d at 1084. Cited in *Matter of Contested Case Hearing Re Conservation District Use Application (CDUA) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaʻohe Mauka, Hāmākua, Hawaiʻi*, 143 Hawaiʻi 379, 431 P.3d 752 (2018) ("*Mauna Kea II*").

In order to complete a thorough CIA that complies with statutory and case law, it is necessary to fully consider information available from, and provided by, Native Hawaiian cultural practitioners and cultural descendants from the project area, which is provided in the ethnographic data gathered for this assessment.

The *Ka Paʻakai* analysis is largely a legal analysis, as the applicable tests are legal standards. Therefore, a strong analysis will be conducted by someone with sufficient legal training.

Additionally, at the core of a thoughtful *Ka Pa'akai* analysis is a comprehensive understanding of traditional and customary practices. In breaking down the Court's tests, it is important to the different elements that contribute to each test.

The first test - "The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project area" – actually consists of two separate elements. First, the simple identification and existence of valued cultural, historical, or natural resources. These resources are tangible in nature. They can include sacred places, culturally valuable plants, or a religious or historic site. This assessment sought to exhaustively identify the great multitude of resources that may exist in the project area or adjacent areas.

As to this test, this assessment shows there are cultural practices that occur within the project area, specifically as related to mele. There are other nearby practices, but none occurring directly in the project area.

An archaeological report was completed, this assesses the "cultural resources" which *Ka Pa'akai* requires consideration of in its ruling. The report identifies cultural resources within the vicinity, which will be assessed and evaluated through the HRS Chapter 6E process with the State Historic Preservation Division.

The second element of this first test is access. Access requires two things to occur. One is the existence of a resource. Whether a plant, an animal, a place, or site, the resource must exist in order for a practitioner to access it. The second thing is physical access. This includes, but it is not limited to, the ability to physically access a plant, animal, site, or location associated with a particular practice. This can also include the traditional and customary route or path taken to access the resource. This can also include cultural protocols that existed in accessing a resource. These are often temporal, in that access protocols can be at a certain time of day or year. Makahiki would be a good example of a traditional custom that has specific cultural protocols associated with access. In the case of Makahiki, the custom takes place at a certain time of year.

Therefore, the first test under *Ka Pa'akai* should include not only a listing of resources, but the identification of ways in which those resources are accessed and utilized in association with a traditional and customary practice. The primary resource for this project is the use of the pavilion for the festival, which is actually being improved through this project.

Therefore, the second test – "The extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the proposed action" – also looks at two separate elements. The first, does the proposed action and its alternatives have an adverse impact on the existence of resources? This would include the alteration,

destruction, modification, or harm of sites, including biological resources, sacred places, burial sites, etc. It also includes a loss of species. Any adverse impact or harm to resources is alone an affect or impairment caused by the proposed action.

Under this element, adverse impacts to historic sites or culturally utilized plants would all be identified adverse impacts. Under this same element, any indirect or cumulative effects would create an adverse impact under *Ka Pa'akai* if those actions harmed resources.

In addition to this, any action that impacts traditional and customary access to resources, even if there is not direct adverse impact to the resource itself, would result in an affect or impairment resulting from the proposed action. Therefore, the limitations on access that could result from development or use of the project area could create an adverse impact under *Ka Pa'akai.*

There was concern expressed by informants that the project about the construction that will take place during the project. This can be effectively addressed and minimized through standard construction BMPs. Construction is not expected to otherwise impact traditional or customary practices in the area. Beyond this, the project will substantially benefit access and area practices.

The third part of the *Ka Pa'akai* framework aims to identify "[t]he feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist." Determining whether or not action has been suitably "feasible" is a matter for the State. These feasible actions could include continued access to the project as needed to conduct cultural practices.

Based on the information available, the potential for effect or impairment of traditional or customary practices is negligible. Nonetheless, best management practices should be implemented to ensure that no unanticipated affects to cultural resources occur and that there is a mechanism in place for practitioners to report any such potential occurrences to the project.

8.0 Impact Assessment

When the Hawaii State Legislature passed Act 50 in 2000, the purposes of the Act were clear: "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" (Act 50, SLH 2000).

HRS 343-2, as amended per Act 50, defines an "Environmental impact statement" as "an informational document prepared in compliance with the rules adopted under 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action, effects of a proposed action on the economic 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" (emphasis added) (HRS Chapter 323-2).

Under the same part, "Significant effects" is defined under state law as "the sum of the 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 welfare, social welfare, or *cultural practices of the community and State*" (emphasis added) (HRS Chapter 323-2). Therefore, an adverse effect to cultural practices of the community or state constitutes a "significant effect" under Chapter 343.

Any tangible or physical impacts to historic sites are primarily addressed in the archaeological section of the EA and are not exhaustively covered by this CIA. Similarly, any tangible physical impacts to flora or fauna are addressed in the biological section of the EA and not exhaustively covered by this CIA. This CIA focuses primarily on affects to cultural practices of the community and state as required by Chapter 343.

8.1 Impacts to Flora

The potential for impact to cultural significant flora is nominal. The project should be mindful to not adversely impact native limu and should also take precautions as to not spread the invasive limu identified in the project area. Construction crews should be instructed to not take any resources they may see in the area and to be discreet regarding the presence of these same resources. The project should allow access for the practitioners to the extent safely feasible during project construction.

8.2 Impacts to Fauna

The potential for impact to cultural significant fauna is nominal. The project should be mindful to not adversely impact marine resources in the area, specifically resources gathered by practitioners for subsistence. Construction crews should be instructed to not take any resources they may see in the area and to be discreet regarding the presence of these same resources. The project should allow access for the practitioners to the extent safely feasible during project construction.

8.3 Impacts to Historic Sites

Impacts to historic sites and properties are being assessed in the HRS 6E Compliance documents. Impacts to the built environment will largely be covered by these HRS 6E documents. Upon discovery of archaeological features, appropriate action should be taken to mitigate impacts to those features.

Additionally, the ethnographic data identifies the potential for burials in the project area. The disturbance of burials is a significant adverse effect, as burials are identified by law as significant cultural properties. In consultation with SHPD, appropriate effects should be made to identify and avoid any burial sites.

8.4 Impacts to Intangible Cultural Resources

Intangible cultural resources refer to those resources without physical form, such as hula or mele. The project will not have any impacts to intangible cultural resources, conversely, the project will substantially benefit such practices by providing a venue for these activities to occur, which is critical to the perpetuation of culture, especially in Waimānalo. The absence of the pavilion is an adverse impact because the pavilion serves as a gathering space for cultural events and activities.

The contributions of Gabby Pahinui and his ‘ohana cannot be understated. He remains one of the foremost legends of Hawaiian music, both in Hawai‘i and around the world. The establishment of the festival and his family’s ongoing perpetuation of this event serves as not only an important cultural event for Waimānalo, but as one of the most important music festivals in all of the Hawaiian Islands. Such events, both for music and hula, are being lost as space and resources have become harder to obtain for such events. This project is critical in fulfilling the City (and State’s) commitment to protect and perpetuate Hawaiian culture.

8.5 Impacts to Cultural Practices

There are numerous identified cultural practices currently taking place adjacent to the project area, as identified by the ethnographic data. The project has the potential to adversely impact these practices, which including cultivation, ocean access, and gathering practices adjacent

to the project area, although due to the nature and location of the work, such an impact is unlikely if BMPs are implemented to reduce runoff into the ocean. Traditional and customary access should be maintained to the coastal areas and ocean to the extent safely feasible. These rights are protected under the state constitution (see Section 1.2) and the state (in this case the City and County of Honolulu) has an obligation to protect them. Additionally, care should be taken to ensure there are no impacts to the resources gathered by practitioners.

8.6 Cumulative and Indirect Impacts

Adverse cumulative and indirect impacts to cultural resources are often overlooked in CIAs, as they are difficult to assess. Cumulative impacts are cultural impacts that result from the incremental impacts of an activity when added to past, present, and reasonably foreseeable future actions and activities. Indirect impacts are impacts on cultural resources which are not a direct result of the project, but a secondary or tertiary result of the project. It is currently not anticipated that the project will have any cumulative or indirect impacts.

Run-off from the project construction was raised as a concern in the ethnographic data, and any such impact would be considered an indirect impact to traditional and customary practices. Other recommendations from the interviewees should be taken under advisement.

8.7 Mitigation and Best Management Practices

The best management practices (BMPs) described above would help to avoid or minimize any potential adverse impacts. Additionally, construction BMPs should be implemented to avoid any indirect impacts as discussed above (Section 8.6). Should burials be identified on the property, this adverse effect would need to be resolved in consultation with SHPD. Due to the lack of subsurface work, such impacts to these or other cultural resources are not anticipated and unlikely.

8.8 Summary of Potential Impacts

Based on the information gathered and the ethnographic data, the proposed project has the potential to have a beneficial impact on cultural resources and traditional or customary practices in the area. This would be primarily achieved through the ongoing annual festival and other activities done with the Native Hawaiian Community. It should also be noted that all respondents were generally supportive of the project.

9.0 Conclusion

In Hawaiian culture, natural and cultural resources are largely viewed as being one and the same. Without the resources provided by nature, cultural resources could not and would not be procured. From a Hawaiian perspective, all natural and cultural resources are interrelated, and all natural and cultural resources are culturally significant. Ethnographer and Hawaiian language scholar Kepā Maly observed, "In any culturally sensitive discussion on land use in Hawaii, one must understand that Hawaiian culture evolved in close partnership with its natural environment. Thus, Hawaiian culture does not have a clear dividing line of where culture ends and nature begins" (Maly, 2001:1).

The kinship between Hawaiians and their land extends back across many generations, and it was the depth and intimacy of this relationship that enabled Hawaiians to thrive sustainability in the islands for hundreds of years prior to the arrival of Europeans. Therefore, Hawaiians are entitled to the pain and anguish they feel at the loss of their lands and resources.

This loss lies at the heart of Hawaiian struggles for traditional or customary access. Therefore, the obligation of the state to ensure that these rights are protected is much more than a legal obligation, as such rights are a necessity of indigenous human life. Recognition and respect for these rights also enables a more mutually respectful and beneficial relationship between the military and Hawaiians.

Act 50 was passed by the state recognizing:

> … 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 (Act 50, SLH 2000).

The CIA is a construct of state law and a requirement of HRS Chapter 343. The legislative intent quoted above is critical to the due consideration of the effects the proposed action has and will have on cultural practices, because it specifies the importance of ensuring "the continued existence, development, and exercise" of culture. This recognizes that culture is not static; it is dynamic. It changes over time. Act 50 specifically calls for consideration of the effects a proposed action may have on the continued "development" of native Hawaiian culture. Which means it is insufficient to simply look back to historic practices. Considering effects to the continued development of culture means the state, specifically the governing state agency, as the accepting authority of the Chapter 343 EIS, of which this CIA is a requirement, must contemplate how an action may affect a culture's ability to evolve, innovate, and develop.

Additionally, OEQC (now ERP) offers specific guidelines for what elements and issues a CIA should address. The section of this CIA which addresses that element is also provided.

Table 2. *Table listing OEQC compliance requirements and their corresponding sections in this assessment.*

OEQC notes that in addition to the content requirements for the draft EIS, which are set out in HAR §11-200.1 et seq., the assessment concerning cultural impacts should address, but not necessarily be limited to, the following matters:	
A. A discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations which might have affected the quality of the information obtained.	A detailed methodology section is provided in Section 2, *Methodology*.
B. A description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken.	A discussion of the effort to gather into from persons familiar with the area or other stakeholders is provided in Section 2.6, *Ethnographic Methodology*.
C. Ethnographic and oral history interview procedures, including the circumstances under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained.	A discussion of procedures, including constraints or limitations, is provided in Section 2.6.
D. Biographical information concerning the individuals and organizations consulted, their expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area.	Biographical information was provided for each interviewee in Section 6.0.

E. A discussion concerning historical and cultural source materials consulted, the institutions and repositories searched and the level of effort undertaken. This discussion should include, if appropriate, the perspective of the authors, any opposing views, and any other relevant constraints, limitations or biases.	A discussion of the materials consulted is provided in Section 2. An extensive cultural and historical overview, which uses both Hawaiian and English language resources is also provided in Section 2. Stakeholders are given significant consideration. Petitions and other materials by project opponents are included in the appendices and are addressed in the context of this assessment.
F. A discussion concerning the cultural resources, practices and beliefs identified, and, for resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site.	In addition to the cultural and historical overview, an extensive discussion concerning cultural resources, practice and beliefs are provided throughout the document by subfield.
G. A discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area affected directly or indirectly by the proposed project.	A thorough discussion concerning the nature of traditional or customary practices and the significance of the cultural resources affected directly or indirectly by the proposed alternatives are provided in Section 7.0, *Impact Assessment*.
H. An explanation of confidential information that has been withheld from public disclosure in the assessment.	The identification of some important cultural resources have been withheld from public disclosure in this assessment due to the potential for poaching.
I. A discussion concerning any conflicting information regarding identified cultural resources, practices and beliefs.	There was no conflicting information regarding cultural resources, practices, or beliefs.
J. An analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may	A thorough analysis is provided in Section 7.0.

alter the setting in which cultural practices take place.	
K. A bibliography of references and attached records of interviews which were allowed to be disclosed.	References are included in Section 10.0.

The standard under which an EIS is considered sufficient is also well-established in Hawaii state case law. The court has held:

> …an EIS need not be exhaustive to the point of discussing all possible details bearing on the proposed action but will be upheld as adequate if it has been compiled in good faith and sets forth sufficient information to enable the decision-maker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action, as well as to make a reasoned choice between alternatives" *Price v Obayashi Hawaii Corp*, 81 Hawaii 171, 182 (1996), upheld in *Kaleikini v Yoshioka*, 283 P. 3d 60, 74 (2012).

It is the obligation of this CIA to disclose information as required under Act 50 sufficiently and in good faith such that the state may consider all impacts when acting as decision-maker to this proposed action. This assessment is not a policy document, nor does it intend to influence decision-making in any fashion. Rather, it has sought to document the complex, and often elusive, history of past and present cultural practices within the project area and larger region. It is ultimately the responsibility of the state to accept or reject the adequacy of this assessment, and then, if accepted, consider the information disclosed herein when deciding on the proposed action.

Waimānalo is rich with both pre-contact and post-contact histories. In applying *Ka Paʻakai*, cultural, historical, or natural resources have been identified in the project area and traditional or customary Native Hawaiian rights are currently exercised in the project area and its adjacent coastal areas, but the project is unlikely to impact any of these resources. These improvements have the potential to benefit practices and the community, especially through the ongoing support for the music festival that uses this resource. Any potential adverse effects to these resources can potentially be avoided or minimized through the implementation of the recommendations provided in Section 8.0.

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Appendix A: Glossary of Hawaiian Terms

The following list of terms were used frequently throughout this report. All definitions were compiled using Pukui and Elbert's *Hawaiian Dictionary* (1986).

Ahupua‘a	Land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (ahu) of stones surmounted by an image of a pig (pua‘a), or because a pig or other tribute was laid on the altar as tax to the chief.
‘Āina	Land, earth. *Lit.* That which feeds.
Akua	1. God, goddess, spirit, ghost. 2. Divine, supernatural, godly.
Ala	Path, road, trail.
Ali‘i	1. Chief, chiefess, ruler, monarch. 2. Royal, regal. 3. To act as chief, reign.
‘Aumakua	Family or personal gods, deified ancestors who might assume the shape of sharks, owls, hawks, dogs, plants, etc. A symbiotic relationship existed; mortals did not harm or eat them, and the ‘aumakua warned or reprimanded mortals in dreams, visions, and calls.
‘Aumākua	Plural of ‘aumakua.
‘Auwai	Irrigation ditch, canal, waterway.
Hālau	1. Long house, as for canoes or hula instruction; meeting house. 2. Large, numerous; much.
Hale pili	House thatched with pili grass.
Heiau	Pre-Christian place of worship, shrine. Some heiau were elaborately constructed stone platforms, other simple earth terraces.
Ho‘i	1. To leave, go or come back; to cause to come back. 2. To enter, as an institution or last resting place. 3. A parting chant to which hula dancers dance as they leave the audience. 4. Marriage of a chief with the daughter of a brother or sister; to do so (a means of increasing offspring).
Hula	A Hawaiian dance form accompanied by chant or song.
‘Ili	Land section, next in importance to ahupua‘a and usually a subdivision of an ahupua‘a.
‘Ili kū	Shorted form of ‘ili kūpono.
‘Ili kūpono	A nearly independent ‘ili land division within an ahupua‘a, paying tribute to the ruling chief and not to the chief of the ahupua‘a. Transfer of the ahupua‘a from one chief to another did not include the ‘ili kūpono located within its boundaries. Sometimes shorted to ‘ili kū.

Kahu	Pastor, minister, reverend, or preacher of a church
Kanaka	Human being, person, individual, party, humankind, population; often used for man.
Kānaka	Plural of kanaka.
Kāne	Male, husband, male sweetheart, man; brother-in-law of a woman.
Kanikau	1. Dirge, lamentation, chant of mourning, lament. 2. To chant, wail, mourn.
Kapu	1. Taboo, prohibition. 2. Special privilege or exemption from ordinary taboo. 3. Sacredness, prohibited, forbidden, sacred, holy, consecrated. 4. No trespassing, keep out.
Kuleana	Right, privilege, concern, responsibility, title, business, property, estate, portion, jurisdiction, authority, liability, interest, claim, ownership, tenure, affair, province.
Kupuna	Grandparent, ancestor, relative or close friend of the grandparent's generation, grandaunt, granduncle.
Kūpuna	Plural of kupuna.
Limu	A general name for all kinds of plants living under water, both fresh and salt, also algae growing in any damp place in the air, as on the ground, on rocks, and on other plants; also mosses, liverworts, lichens.
Loʻi	Irrigated terrace, especially for taro, but also for rice and paddy.
Loko iʻa	Traditional Hawaiian fishpond.
Makai	On the seaside, toward the sea, in the direction of the sea.
Mālama	To take care of, tend, attend, care for, preserve, protect, beware, save, maintain.
Mauka	Inland, upland, towards the mountain.
Mele	1. Song, anthem, or chant of any kind. 2. Poem, poetry. 3. To sing, chant.
Mele mākaʻikaʻi	Travel chant.
Mōʻī	King, sovereign, monarch, majesty, ruler, queen.
Moku	1. District, island, islet, section, forest, grove, clump, fragment. 2. To be cut, severed, amputated, broken in two.
Moʻo	Lizard, reptile of any kind, dragon, serpent.
Moʻolelo	Story, tale, myth, history, tradition, literature, legend, journal, log, yard, fable, essay, chronicle, record, article.
Moʻowahine	Female lizard deity.
Nīʻaupiʻo	Offspring of the marriage of a high-born brother and sister, or half-brother and half-sister.
ʻŌlelo noʻeau	Proverb, wise saying, traditional saying.
Oli	Chant that was not danced to, especially with prolonged phrases chanted in one breath, often with a trill at the end of each phrase; to chant thus.

Piʻo	Marriage of full brother and sister of nīʻaupiʻo rank, presumably the highest possible rank. Their offspring had the rank of naha, which is less than piʻo but probably more than nīʻaupiʻo. Later piʻo included marriage with half-sibling.
Pueo	Hawaiian short-eared owl (*Asio flammeus sandwichensis*), regarded often as a benevolent ʻaumakua.
ʻŪniki	Graduation exercises, as for hula, lua fighting, and other ancient arts (probably related to niki, to tie, as the knowledge was bound to the student).
Wahi pana	A legendary place; a place made special celebrated in stories associated with it. Often sacred.
Wahine	Woman, lady, wife; sister-in-law, female cousin-in-law of a man, female.
Waiwai	Goods, property, assets, valuables, value, worth, wealth, importance, benefit, estate, use; useful, valuable, rich, costly, financial.
Wao	1. Realm. 2. A general term for inland region usually forested but not precipitous and often uninhabited.