Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

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AUG 23 2013

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OFC. OF ENVIRONMENTAL QUALITY CONTROL

August 6, 2013

Ms. Genevieve Salmonson, Interim Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawai`i 96813

Dear Ms. Salmonson:

The County of Kaua'i Housing Agency hereby transmits the Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Līhu'e , Kaua'i, Hawai'i for publication in the next available edition of the Environmental Notice.

Copies of public comments on the draft environmental assessment and anticipated finding of no significant impact (DEA-AFONSI) received during the 30-day public comment period and the corresponding responses from the applicant have been included in the FEA.

Enclosed is a completed OEQC Publication Form, two (2) hard copies of the FEA-FONSI and one (1) CD containing a pdf of the same and a Word copy of the publication form. Simultaneous with this letter, we have submitted the summary of the action in a text file by electronic mail to your office.

If you have any questions, please contact Klayford Nakaahiki at (808) 241-4451.

Sincerely,

Kamuela Cobb-Adams
Housing Director

Enclosures: OEQC Publication Form
FEA-FONSI (2 hard copies)
1 CD with FEA-FONSI (pdf) and OEQC Publication Form (Word)

AGENCY ACTIONS
SECTION 343-5(B), HRS
PUBLICATION FORM (FEBRUARY 2013 REVISION)

Project Name: Rice Camp Parcels Environmental Assessment/Environmental Records Review
Island: Kaua'i
District: Līhu'e
TMK: (4)3-6-009:001 and (4)3-6-004:009
Permits: National Pollutant Discharge Elimination System (NPDES) Permit, ROW Permit (DOT Highways) (if work is expected to be completed in state ROW), Noise Permit (if contractor will generate noise levels exceeding DOH guidelines),Use Permit, Building Permit, Grubbing Permit, and Grading Permit/Notice of Intent (if fill, or excavation or combination of both fill and excavation exceeds one hundred cubic yards), Driveway Approach Permit for Malama Street, and Road for use within County Rights-of-Way.

Proposing/Determination Agency:
Kaua'i County Housing Agency
Pi'ikoi Building, 4444 Rice Street, Suite 330
Līhu'e, Kaua'i Hawai'i 96766
Klayford Nakaahiki
(808) 241-4451

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OFC. OF ENVIRONMENTAL QUALITY CONTROL

Accepting Authority:
(for EIS submittals only)

Consultant:
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai'i 96813
Colette Sakoda
808-833-2225 ext. 1004

Status (check one only):

__ DEA-AFNSI — Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov); a 30-day comment period ensues upon publication in the periodic bulletin.

_X_FEA-FONSI — Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

__FEA-EISPN — Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov); a 30-day consultation period ensues upon publication in the periodic bulletin.

__Act 172-12 EISPN — Submit the proposing agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqchawaii@doh.hawaii.gov). NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.

__DEIS — The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.

__FEIS — The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS

(you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

__ Section 11-200-23 Determination

The accepting authority simultaneously transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the proposing agency. No comment period ensues upon publication in the periodic bulletin.

__Section 11-200-27 Determination

The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.

__Withdrawal (explain)

Project Summary:

The Kaua'i County Housing Agency is proposing to develop affordable senior housing at properties formerly known as the Rice Camp parcels, located at Tax Map Key (TMK) numbers (4)3-6-004:009 and (4)3-6-009:001, in Līhu'e, Kaua'i, Hawai'i. The proposed development includes a total of 60 units, in addition to a community center with laundry facilities, community gardens, landscaped open spaces, and a detention basin at the project site. Future development plans include an additional building totaling 24 housing units. The completed development would include a total of 84 housing units at the project site offering housing for 80 to 100 senior residents. The Kaua'i County Housing Agency has a responsibility to provide much needed affordable housing to the county's senior residents. As the responsible entity designated by the U.S. Department of Housing and Urban Development (HUD), the Kaua'i County Housing Agency has prepared this environmental assessment to enable the release of HOME funds to complete the development of this project.

FINAL
ENVIRONMENTAL ASSESSMENT
(ENVIRONMENTAL RECORDS REVIEW)

Kaua‘i County Housing Agency
Affordable Housing Project for Rice Camp Parcels
Līhu‘e, Kaua‘i, Hawai‘i

August 2013

This document is prepared pursuant to Chapter 343, Hawai‘i Revised Statutes,
24 Code of Federal Regulations Chapter 58.5, and
National Historic Preservation Division Section 106

The Applicant:

Kaua‘i County Housing Agency

Accepting Authority:

County of Kaua‘i

FINAL
ENVIRONMENTAL ASSESSMENT
(ENVIRONMENTAL RECORDS REVIEW)

Kaua‘i County Housing Agency
Affordable Housing Project for Rice Camp Parcels
Līhu‘e, Kaua‘i, Hawai‘i

Environet Project No.: 1161-0001

Prepared by:
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai‘i 96813
808-833-2225

Prepared for:
Kaua‘i County Housing Agency
Pi‘ikoi Building, 4444 Rice Street, Suite 330
Līhu‘e, Kaua‘i, Hawai‘i 96766

Applicant:

Kaua‘i County Housing Agency

Accepting Authority:

County of Kaua‘i

August 2013

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Acronyms and Abbreviations

°F	degrees Fahrenheit
%	percent
A.D.	Anno Domini
AIS	Archaeological Inventory Survey
ALISH	Agricultural Lands of Importance to the State of Hawai‘i
ASTM	American Society for Testing and Materials
BMP	best management practice
CERCLIS	Comprehensive Environmental, Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CG	General Commercial
CIA	Cultural Impact Assessment
Cl^-	chloride
CO_2	carbon dioxide
CO	carbon monoxide
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
CZO	Comprehensive Zoning Ordinance
dBA	decibels
DLNR	State of Hawai‘i Department of Land and Natural Resources
DOA	Department of Agriculture
DOH	State of Hawai‘i Department of Health
DOPW	Department of Public Works
DOT	Department of Transportation
DOW	Department of Water
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ERR	Environmental Records Review
ESA	Environmental Site Assessment
FAA	Federal Aviation Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FR	Federal Register
FRC	Federal Reserve Charge
ft	feet
HAR	Hawai‘i Administrative Rules
HDOA	State of Hawai‘i Department of Agriculture
hr	hour(s)
HRS	Hawai‘i Revised Statutes
HUD	Department of Housing and Urban Development
in	inch(es)
KIUC	Kaua‘i Island Utility Cooperative
LhB	silty clay
LHSFNA	Labors Health Safety Fund of North America
LUC	State of Hawai‘i Land Use Commission
LUST	leaking underground storage tank
m	meter(s)

mg/L	milligrams per liter
mi	mile(s)
mph	miles per hour
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NAHA	National Affordable Housing Act
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NGDC	National Geophysical Data Center
NHPA	National Historic Preservation Act
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OEQC	Office of Environmental Quality Control
PM	particulate matter
R-20	Residential (20 dwellings per acre)
ROW	Right of way
rRR	rough broken land
SCS	Scientific Consultant Services, Inc.
SDWA	Safe Drinking Water Act
SHPD	State Historic Preservation Division
SHWS	State Hazardous Waste Sites
SLH	State Legislature of Hawai‘i
SMA	Special Management Area
SO_x	oxides of sulfur
SO_2	sulfur dioxide
sq. ft.	square feet
sq. mi.	square mile(s)
TMK	Tax Map Key
UH	University of Hawai‘i
U.S.	United States
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	volatile organic compound

Executive Summary

This Environmental Assessment (EA) and Environmental Records Review (ERR) was conducted pursuant to Chapter 343, Hawai‘i Revised Statutes (HRS) and associated Title 11, Chapter 200, Hawai‘i Administrative Rules (HAR) and the 24 Code of Federal Regulations (CFR) Part 58, ERR. The purpose of the project is to assess potential social and environmental effects for the proposed affordable senior housing project at properties formerly known as Rice Camp parcels located at Tax Map Key (TMK) numbers (4)3-6-004:009 and (4)3-6-009:001 (hereinafter referred to as the project site). The Kaua‘i County Housing Agency has a responsibility to provide much needed affordable housing to its senior residents. The United States (U.S.) Department of Housing and Urban Development (HUD) has allocated HOME funds to the Kaua‘i County Housing Agency for the fiscal year 2013. This EA/ERR will also serve the purpose of obtaining approval of a Request for the Release of Funds through U.S. HUD to complete the proposed project. The intent of this document is to ensure that systematic consideration is given to the environmental consequences of the proposed development. This EA/ERR examines a No Action Alternative, and the Proposed Action, defined as follows:

No Action Alternative. The affordable housing development project would not be constructed. There would be no disturbance of the existing environment, however, additional affordable housing would not be provided to senior residents on the Island of Kaua‘i. The Kaua‘i County Housing Agency is responsible for facilitating affordable housing opportunities to the residents of Kaua‘i. Providing these opportunities is the Kaua‘i County Housing Agency’s top priority. Without this project, the senior citizens of Kaua‘i would not have the opportunity for additional housing opportunities.

Proposed Action – Preferred Alternative. The Proposed Action is the development of affordable housing on the Rice Camp parcels at the project site. The current project development plans include a total of 60 units. Thirty-eight one-bedroom units, approximately 649 square feet (sq. ft.) per unit, and 22 two-bedroom units, approximately 829 sq. ft. per unit, are proposed to be built at the project site. A community center with laundry facilities, community gardens, and landscaped open spaces are also proposed at the project site. A detention basin is planned for the open space in the western portion of the project site. Future development includes an additional building totaling 24 housing units. The completed development plan would include 84 total housing units at the project site offering housing for 80 to 100 senior residents.

Environmental Impacts

Topography and Geology

No significant impacts to topography or geology are expected to result from the No Action Alternative or the Preferred Alternative. Under the Preferred Alternative, construction will only slightly alter the elevation of the ground and surface conditions, as needed for construction activities. Since the changes in slope are expected to be minimal, no significant impacts to topography or geology are anticipated to result from the Preferred Alternative.

Soils

No adverse impacts to soils are anticipated from the No Action Alternative. The project site conditions would remain the same.

Impacts to soil resulting from construction activities under the Preferred Alternative would be minimized or avoided as a result of both temporary and permanent erosion and sedimentation control measures that shall be implemented during the construction of the housing units, roads, and utilities installation. Therefore, no significant impacts to soil are anticipated as a result of the Preferred Alternative.

Fire Hazards

No significant impacts are expected under the No Action Alternative. Existing potential fire hazards posed by the current conditions would remain the same.

No significant impacts are expected under the Preferred Alternative. Construction activities for the Preferred Alternative would not create fire hazards in the project area since construction practices for fire safety would be implemented in accordance with County of Kaua‘i and State guidelines.

Natural Hazards

No significant impacts to the project site natural hazard vulnerability would result from the No Action Alternative or the Preferred Alternative. The project site is located outside the tsunami inundation zone. The project site is also located in an area outside the 100-year and 500-year flood zones, according to the Federal Emergency Management Agency (FEMA). The project site has a very low percentage of flooding probability. The project site is at a low risk for being impacted by earthquakes. Ground accelerations above 30 percent (%) that of gravity are likely to occur at a probability of less than 2% in the next 50 years within the State of Hawai‘i. Therefore, natural hazard vulnerability in the project area is insignificant.

Biological Resources

No threatened or endangered species are known to exist in the project area and the project area is located outside critical habitat areas; therefore, the No Action Alternative and the Preferred Alternative would not result in loss or destruction of critical species. However, mitigation measures will be implemented under the Preferred Alternative to reduce any potential of impact to any seasonal habitat of species including the Hawaiian petrel and hoary bat based on recommendations by the United States Fish and Wildlife Service (USFWS). No significant impacts during the construction period or during operation of the project site are anticipated as mitigation measures will be utilized. These mitigation measures include avoiding nighttime construction and shielding all lights to protect seabirds from colliding with above ground objects. Also, trees and shrubs in the areas would not be cleared during the Hawaiian hoary bat breeding season from June 1 through September 1.

Wetlands

The No Action Alternative and the Preferred Alternative would not result in significant impacts to wetlands. The nearest wetland is located 800 feet southwest from the project site and no wetlands exist at the project site. Loss or destruction of this wetland is not expected based on the distance of the wetland to the project area. Runoff produced during construction activities would be mitigated using silt fences and County of Kaua‘i-approved best management practices (BMPs) to reduce the potential of sediment impact to wetlands to a level of insignificance.

Water Resources

No significant impacts to water resources would result from the No Action Alternative or the Preferred Alternative. No change to the water resources in the project area is expected. No construction activities would be performed under the No Action Alternative. Construction impacts under the Preferred Alternative would be mitigated to reduce any potential sedimentation discharges to surface water resources through the use of sediment detention basins, silt screens, drain inlet protection, and applicable construction BMPs (County of Kaua‘i, 2004). Additionally, a National Pollutant Discharge Elimination System (NPDES) permit would be obtained for treatment of any temporary discharge during construction activities.

Hazardous and Toxic Materials Considerations

The No Action Alternative would not result in any changes to the project site. Therefore, no significant impacts to the project site from hazardous or toxic materials are expected from the No Action Alternative.

The Preferred Alternative would not result in any significant impacts to the project site from hazardous or toxic materials. Any potential release of petroleum products or hazardous materials from construction activities would be mitigated by using BMPs including oil absorbent pads under equipment requiring maintenance, and use of silt fences and detention basins. With proper pollution prevention measures in place, no significant impacts from the use of hazardous materials are expected from the Preferred Alternative. Preventive measures include proper maintenance and use of all equipment.

Additionally, a Phase I Environmental Site Assessment (ESA) completed at the project site indicated no evidence of gross contamination or the presence of hazardous waste on the project site (Kimura International, 2011). The project site is not currently listed on any of the available state or federal environmental databases that were reviewed for the ESA. Conclusions indicated that no recognized environmental concerns exist at the project site and therefore, no further action for the project site is necessary. Construction activities may generate excess soil that must be disposed of at a local landfill. Quantitative analytical soil characterization requirements are the responsibility of the land owner and may be required by the accepting landfill.

Climate and Air Quality

No significant impacts to air quality would result from the No Action Alternative, as the existing conditions at the project site would remain the same.

The Preferred Alternative would not have a significant impact to air quality. Dust abatement measures during construction activities would be implemented to include watering of roads, trenches, and bare soil in accordance with County of Kaua‘i BMPs and in compliance within the State of Hawai‘i Department of Health (DOH) HAR, Title 11, Chapter 60-11.1 “Air Pollution Control.” A temporary increase in vehicular traffic due to construction is anticipated; however, these impacts of vehicular use to air quality are expected to be minimal. Small increases in vehicular traffic periodically by delivery trucks and service vehicles are anticipated with the occupation of the housing development; however, impacts due to increased traffic are expected to be minimal.

Noise

No significant impacts to noise are expected to occur under the No Action Alternative.

Potentially significant adverse impacts to noise during the construction phase were initially considered under the Preferred Alternative. Noise disturbances may occur to the surrounding area during the construction period; however, the County of Kaua‘i BMPs, such as mufflers and noise barriers, confining construction to typical contractor work periods, and proper work practices should be employed to adhere to DOH noise regulations. If noise impacts are expected to exceed the maximum permissible sound levels of 78 decibels (dBA), a noise permit may need to be obtained from the DOH and temporary sound barriers may need to be installed. It is recommended that the developer consult with the DOH for noise permit requirements. With the implementation of mitigation measures, including County of Kaua‘i BMPs, as well as adhering to DOH standards, potential noise disturbances from the Preferred Alternative would be reduced to less than significant.

Land Use Considerations and Zoning

The No Action Alternative and the Preferred Alternative would not have any significant impacts to land use and zoning. The project site is designated as urban, according to the State of Hawai‘i Land Use Commission (LUC) designations, and does not fall into the State Agricultural Lands of Importance to the State of Hawai‘i (ALISH) classifications. The Preferred Alternative is expected to comply with the County of Kaua‘i Comprehensive Zoning Ordinance (CZO) for the Residential (R-20) designation at

TMK parcel (4)3-6-004:009. TMK parcel (4)3-6-009:001 is designated as general commercial (CG) and may require a Use Permit for the affordable housing development. It is recommended that Kaua‘i County Housing Agency or the developer consult with the County of Kaua‘i Planning Department for zoning or land use permits. The maximum residential and resort densities within the CG district follow that which is permitted in an R-20 district, which is 20 dwellings per acre (County of Kaua‘i, 2013b). The Preferred Alternative is consistent with the LUC guidelines, but requires consultation with the County of Kaua‘i Planning Department with regard to possible land use permitting requirements.

Historical and Archaeological Considerations

No potential impacts are expected from the No Action Alternative as no change to the current land would occur. There would be no loss or destruction of historic or archaeological resources.

The Preferred Alternative would not result in any significant impacts during ground altering work at the project site. A Burial Treatment Plan for the known burial site at the project site has been written (Appendix C) and should be followed accordingly, with a wrought-iron fence being erected around the cultural resources for preservation. The mitigation measures described in the plan would ensure no loss or destruction of historic and archaeological resources and ensure compliance with State laws and regulations. As such, these mitigation measures would reduce any potential impacts to archaeological resources associated with the Preferred Alternative to a level of insignificance. If human osteological remains or a potential archaeological site were uncovered, site work would cease and the Hawai‘i State Historic Preservation Division (SHPD) would be contacted in compliance with HRS Section 6E. These mitigation measures will ensure no loss or destruction of historic and archaeological resources, avoiding adverse impacts to potential sites, and ensuring compliance with State laws and regulations. These mitigation measures would reduce any potential impacts associated with the Preferred Alternative to a level of insignificance.

Cultural Impact Assessment (CIA) – HRS Chapter 343

Results of the Cultural Impact Assessment (CIA) indicated that no potential impacts would result from the No Action Alternative or the Preferred Alternative. There would be no loss or destruction of cultural practices or properties, and no infringement of State law relating to cultural resources.

Circulation and Traffic

The No Action Alternative would not result in any significant impacts to circulation or traffic as no changes to current conditions are expected.

A temporary increase in vehicular traffic, due to construction, is anticipated under the Preferred Alternative; however these impacts are expected to be minimal. Small increases in vehicular traffic periodically by delivery trucks and service vehicles are anticipated with the occupation of the housing development. Traffic from visitors, health care professionals, and building maintenance staff would occur. However, the impacts to traffic circulation patterns in the local roadway network would be minimal.

Social Factors and Community Identity

Significant adverse impacts may result with the No Action Alternative. The affordable housing project is expected to provide an increased quality of life to senior residents that qualify for the HUD program. Without this project, seniors may not be provided with necessary living facilities. The population would continue to grow while housing availability to senior residents would not under the No Action Alternative.

The Preferred Alternative would beneficially impact senior residents on the Island of Kaua‘i. New affordable housing would be provided to senior residents. The housing development would assist in accommodating senior living facilities for the increasing population of elderly persons in the County of Kaua‘i.

Economic Considerations

No significant impacts to the economy are expected to result from the No Action Alternative because no change to existing conditions is expected.

Short-term beneficial impacts resulting from the Preferred Alternative include temporary construction jobs during the construction phase of the project. Long-term beneficial impacts to economic considerations include the demand for accessible health care and other services for the senior residents that would reside in the proposed housing development. The proposed development may potentially generate direct and indirect jobs within the Līhuʻe community, which is a potential beneficial impact. No adverse economic impacts are anticipated under the Preferred Alternative.

Public and Recreational Facilities

No significant impacts to public and recreational facilities would result from the No Action Alternative. No change to existing conditions is expected to occur from the No Action Alternative.

The Preferred Alternative is not expected to have any significant impacts on the public or recreational facilities provided in the project area.

Visual and Aesthetic Resources

No impact on the visual resources and aesthetics in or around the project area is anticipated because the No Action Alternative does not propose any change to current conditions.

Long-term potential beneficial impacts to the visual and aesthetic resources may result from the Preferred Alternative. The new housing development will increase the aesthetics of the neighborhood with the new structures and removal of stored equipment and temporary storage tent that currently make up the existing view. Overall, the neighborhood would display more appeal to the community and visitors as a result of a new housing development and organized landscaping. Short-term adverse impacts due to construction would result from the Preferred Alternative. Temporary construction site conditions would be replaced by an architecturally designed residential complex that will be a visual asset to the neighboring residential land uses.

Infrastructure Systems and Utilities

The No Action Alternative would not have any significant impact to utilities or infrastructure. No change to the existing conditions is expected for the No Action Alternative.

The Preferred Alternative is expected to have beneficial impacts on the infrastructure and utilities in or around the project area. Additional utility lines will provide new infrastructure improvements to comply with the County of Kauaʻi's Water Plan for 2020. The proposed development will have new infrastructure and utilities, which is an upgrade of the current system available at the project site. The current water supply is expected to facilitate the population growth estimates for the town of Līhuʻe through the year 2020. The potable water demand for the 60 housing units proposed is estimated to be equal to the current allotment for the two existing parcels (the project site). The Kauaʻi County Housing Agency must coordinate with the County of Kauaʻi Department of Water (DOW) to implement the requirements for developing source water to meet the project residents' needs. The Kauaʻi County Housing Agency would prepare and receive approval from the DOW of all construction plans for the necessary water system facilities. Additional water utilities would be developed during the construction of the second phase of the project including the additional 24 housing units. No adverse impacts to the utilities are anticipated under the Proposed Action.

Summary and Conclusions

As described in the EA, the Proposed Action and No Action Alternatives were studied extensively to determine the potential impacts and appropriate mitigation measures for those impacts (Table ES-1). Thus, based on the evaluation conducted, the County of Kauaʻi has determined that a Finding of No

Significant Impact (FONSI) is being issued and an Environmental Impact Statement (EIS) is not necessary.

Table ES-1: Alternatives Impacts Matrix

Resource Concerns	No Action	Proposed Action
	Alternative I	**Alternative II**
Topography and Geology	O	O
Soils	O	O*
Fire Hazard	O	O
Natural Hazards	O	O
Biological Resources	O	O*
Wetlands	O	O*
Water Resources	O	O*
Hazardous and Toxic Materials Considerations	O	O*
Climate and Air Quality	O	O*
Noise	O	O*
Land Use Considerations and Zoning	O	O
Historical and Archaeological Considerations	O	O*
Cultural Impacts Assessment – HRS Chapter 343	O	O
Circulation and Traffic	O	O*
Social Factors and Community Identity	-	+
Economic Considerations	O	+
Public and Recreational Facilities	O	O
Visual and Aesthetic Resources	O	+
Infrastructure Systems and Utilities	O	+

- = negative impact

O = no impact

+ = beneficial impact

* = with mitigation measures

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SECTION 1 INTRODUCTION AND SUMMARY

1.1 **Introduction and Project Summary**

This Environmental Assessment (EA) and Environmental Records Review (ERR) is prepared pursuant to Chapter 343, Hawaiʻi Revised Statutes (HRS) and associated Title 11, Chapter 200, Hawaiʻi Administrative Rules (HAR) and the 24 Code of Federal Regulations (CFR) Part 58 ERR. The intent of this document is to ensure that systematic consideration is given to the environmental, social, and economic consequences of the Proposed Action. The Proposed Action is the development of affordable senior housing located at the former Rice Camp parcels Tax Map Key (TMK) (4)3-6-004:009 and (4)3-6-009:001 (the project site). The United States (U.S.) Department of Housing and Urban Development (HUD) has allocated HOME funds to the Kauaʻi County Housing Agency for the fiscal year 2013. "HOME provides formula grants to States and localities that communities use-often in partnership with local nonprofit groups-to fund a wide range of activities that build, buy, and/or rehabilitate affordable housing for rent or homeownership or provide direct rental assistance to low-income people," (U.S. HUD, 2013). This environmental review will also serve the purpose of obtaining approval of a Request for the Release of HUD funds to complete the proposed project. The Kauaʻi County Housing Agency is the responsible entity for the proposed senior housing development project.

1.2 **Project Information**

Project Name:	Final Environmental Assessment (Environmental Records Review) Affordable Housing Project for Rice Camp Parcels Līhuʻe, Kauaʻi, Hawaiʻi
Applicant:	Kauaʻi County Housing Agency Piʻikoi Building, 4444 Rice Street, Suite 330 Līhuʻe, Kauaʻi, Hawaiʻi 96766 (808) 241-4451
Agent:	Environet, Inc. 1286 Queen Emma Street Honolulu, HI 96813 Contact: Colette Sakoda (808) 833-2225 ext. 1004
Accepting Authority:	County of Kauaʻi Piʻikoi Building, 4444 Rice Street, Suite 330 Līhuʻe, Kauaʻi, Hawaiʻi 96766
Project Location:	Līhuʻe, Island of Kauaʻi, Hawaiʻi
Tax Map Key Nos.:	(4) 3-6-004:009 and (4) 3-6-009:001
Total Affected Project Area:	3.609 acres and 1.589 acres, respectively
Existing Land Use:	Urban, Open Space
State Land Use District:	Urban
County Zoning Designation:	Residential (R-20) and General Commercial (CG), respectively

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SECTION 2 PROJECT DESCRIPTION

2.1 **Scope and Authority**

The Kaua‘i County Housing Agency is proposing to develop affordable housing for senior residents at properties formerly known as Rice Camp parcels located at TMK Nos. (4)3-6-004:009 and (4)3-6-009:001 (Figure 2-1). In order to do so, the Kaua‘i County Housing Agency is conducting an EA in accordance with HRS 343 and 24 CFR Part 58 ERR to evaluate the potential environmental, social, and economic impacts associated with the development of affordable housing at the project site.

2.2 **Project Location**

The two parcels, TMKs (4)3-6-009:001 and (4)3-6-004:009, at addresses 4203 Malama Street and 2940 Kalena Street, respectively, were recently acquired by the Kaua‘i County Housing Agency where a former plantation camp known as “Rice Camp” once stood (Figure 2-2). The project site lies within an urban area in the town of Līhu‘e. Surrounding land uses include commercial and public facilities and residences (Figure 2-3). The project site is approximately 5.2 acres and lies within the Kalapakī and Nāwiliwili Ahupua‘a (Figure 2-4). The larger parcel, TMK No. (4)3-6-004:009 (3.6 acres), is currently a vacant lot. The smaller parcel, TMK No. (4)3-6-009:001 (1.6 acres), has been operating as a baseyard for the Kaua‘i County Housing Agency fire department emergency vehicles. With Kaua‘i County Housing Agency’s new ownership, these properties are planned for an affordable housing development.

2.3 **Overview of Alternatives**

2.3.1 No Action Alternative

Under the No Action Alternative, the affordable housing development project would not be constructed. There would be no disturbance of the existing environment, however, additional needed affordable housing would not be provided to senior residents on the Island of Kaua‘i. The Kaua‘i County Housing Agency is responsible for facilitating affordable housing opportunities to the residents of Kaua‘i. Providing these opportunities is the Kaua‘i County Housing Agency’s top priority.

2.3.2 The Proposed Action – The Preferred Alternative

The proposed action is the development of affordable housing on the Rice Camp parcels at TMK Nos. (4)3-6-009:001 and (4)3-6-004:009. The current project plans include a total of 60 units built on the two parcels. Thirty-eight one-bedroom units approximately 649 square feet (sq. ft.) per unit and 22 two-bedroom units approximately 829 sq. ft. per unit are proposed to be built across both parcels. A community center with laundry facilities, community gardens, and landscaped open spaces are also proposed. Most of the units will be one-bedroom, one-bath units with some two-bedroom, one-bath units. A detention basin is planned for the open space in the western portion of the project site. Future development includes an additional building with 24 housing units, totaling 84 housing units across both parcels.

2.4 **Purpose and Need**

The purpose of the proposed project is to satisfy the need for senior housing on the Island of Kaua‘i. The EA/ERR is being conducted to evaluate and document the possible environmental, social, and economic consequences of the proposed affordable housing development. The Kaua‘i County Housing Agency is obligated to provide the much needed affordable housing to senior residents on Kaua‘i as the population of Kaua‘i senior residents are increasing. Facilitating affordable housing opportunities for the Kaua‘i residents is one of the County’s top priorities. The County of Kaua‘i General Plan indicates the overall population is projected to increase from 65,300 to 74,300 residents in 2020 (County of Kaua‘i, 2000). The projected need for housing units is 20,400 to 23,300 for the residents of all ages in the County of Kaua‘i (County of Kaua‘i, 2000). These statistics further justify the County of Kaua‘i’s responsibility to

provide much needed housing. The County of Kaua‘i General Plan addresses elderly housing needs. The County of Kaua‘i will need 152 affordable senior rental units in the five-year period from 2012 through 2016 for seniors who earn 80 percent (%) or less of the area median income.

2.5 **Regulatory Framework**

The EA is a requirement under Chapter 343 HRS due to the use of County lands. The ERR is a federal requirement under 24 CFR Part 58 as HUD funds have been appropriated for this project. This EA has been prepared in accordance with HRS 343, and its implementing regulations, as well as, Title 11, Chapter 200 of the HAR. Additionally, this EA includes National Historic Preservation Act (NHPA) Section 106 Consultation and adopts the policies and procedures included in the CFR Title 24 Part 58 ERR. The environmental criteria evaluated under CFR Title 24 Part 58 include:

Historic Properties

The NHPA of 1966 as amended (16 (United States Code (U.S.C.) 470)

Executive Order 11593, Protection and Enhancement of Cultural Environment, May 13, 1971 (36 Federal Register (FR) 8921)

Federal historic preservation regulations:

36 CFR Part 800

The Reservoir Salvage Act of 1960 as amended by the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469) (where applicable)

Floodplain Management and Wetland Protection

Executive Order 11988, Floodplain Management, May 24, 1977 (42 FR 26951)

Executive Order 11990, Protection of Wetlands, May 24, 1977 (42 FR 26961)

Coastal Zone Management (CZM)

The Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. 1451), as amended

Sole Source Aquifers

The Safe Drinking Water Act (SDWA) of 1974 (42 U.S.C. 201, 300(f) and 21 U.S.C. 349) as amended

Sole Source Aquifers (United States Environmental Protection Agency (EPA)-40 CFR Part 149)

Endangered Species

The Endangered Species Act of 1973 (16 U.S.C. 1531) as amended

Wild and Scenic Rivers

The Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271) as amended

Air Quality

The Clean Air Act (42 U.S.C. 7401) as amended

Determine Conformity of Federal Actions to State or Federal Implementation Plans (EPA 40 CFR Parts 6, 51, and 93)

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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

PROJECT LOCATION MAP
KAUA'I, HAWAI'I

FIGURE 2-1

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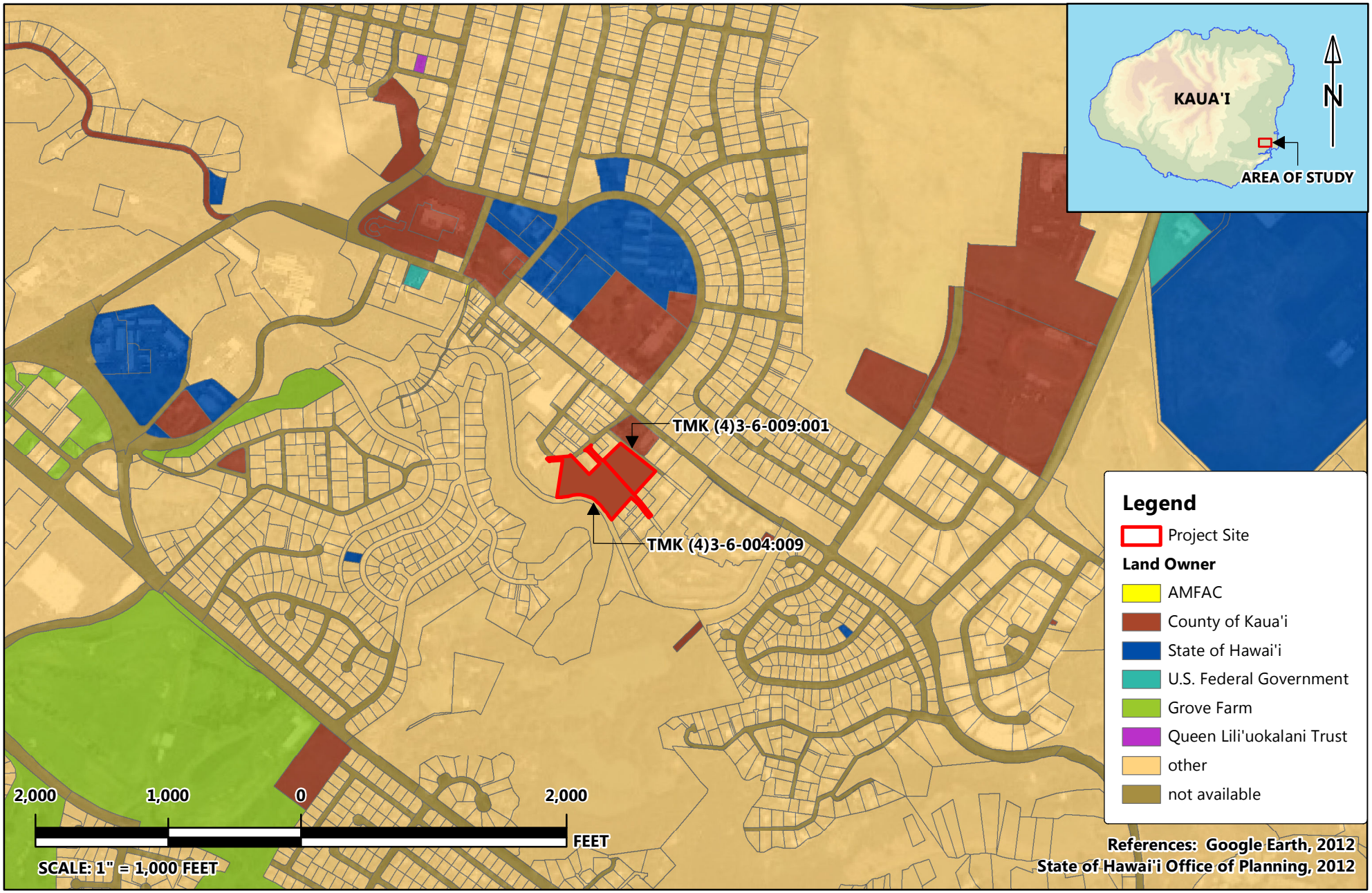

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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

LAND OWNERSHIP MAP
KAUA'I, HAWAI'I

FIGURE 2-2

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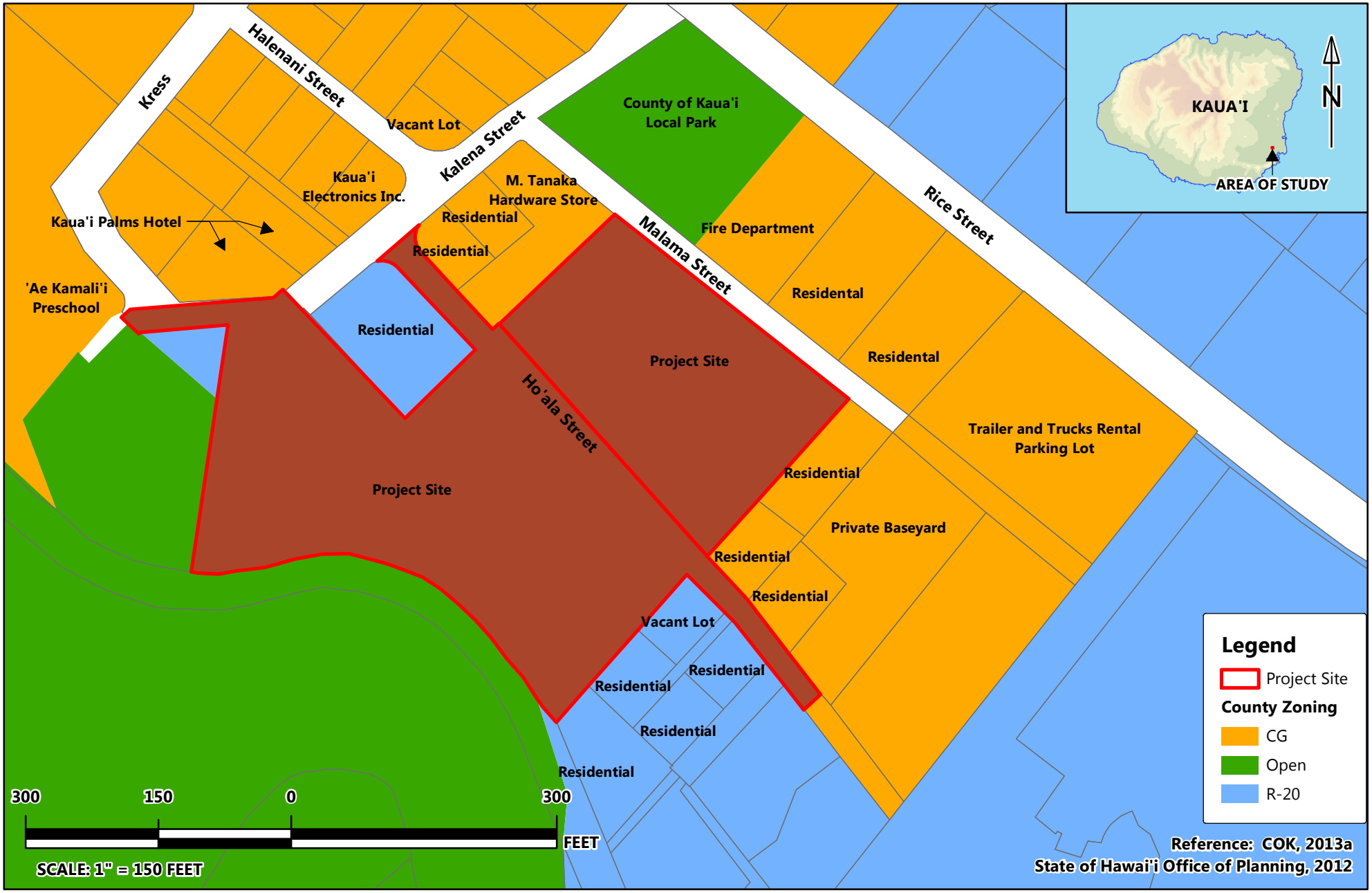

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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

COUNTY ZONING DESIGNATIONS AND SURROUNDING LAND USES MAP
KAUA'I, HAWAI'I

FIGURE 2-3

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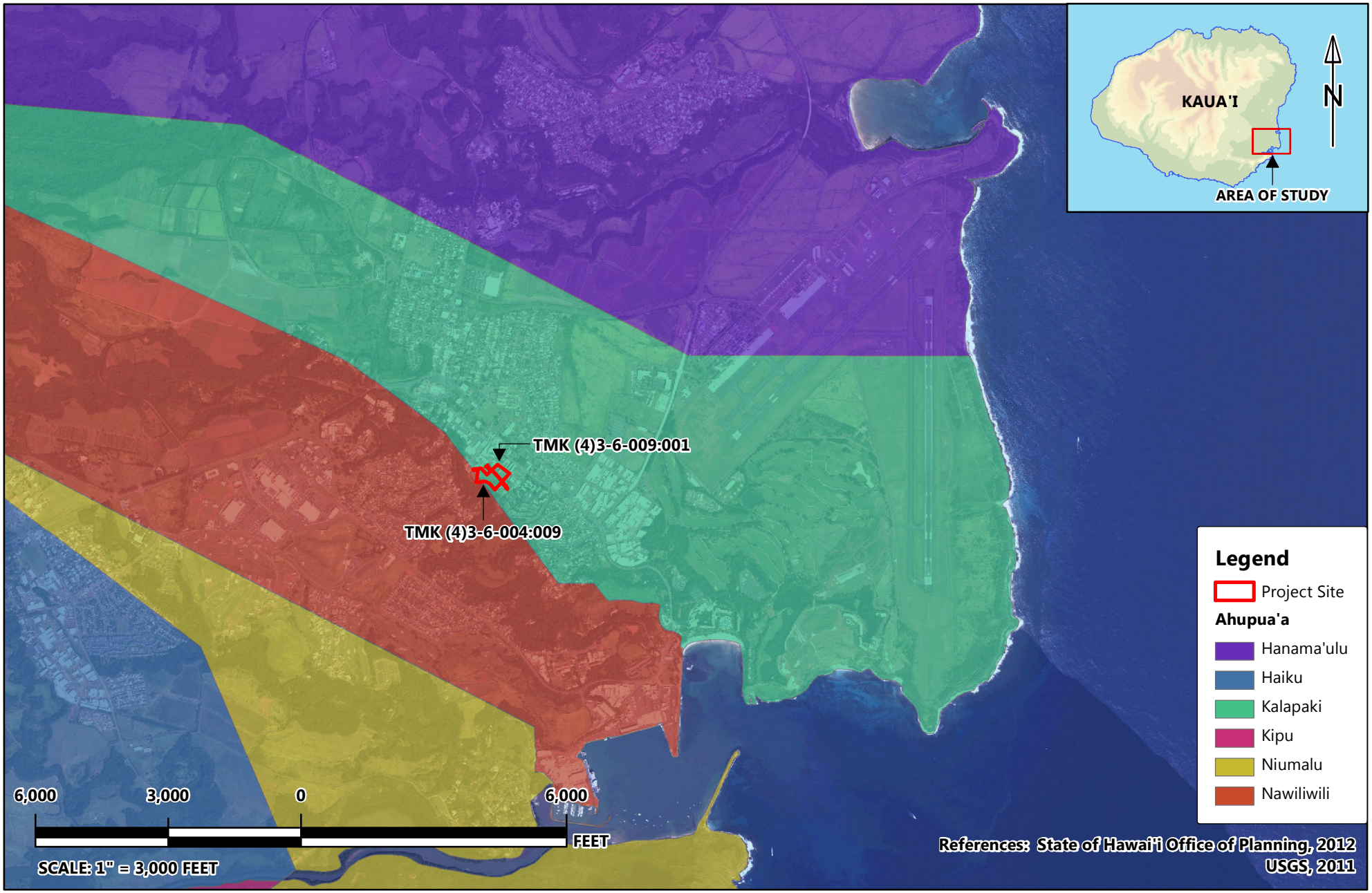

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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

AHUPUA'A LAND DESIGNATIONS MAP
KAUA'I, HAWAI'I

FIGURE 2-4

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Farmlands Protection

Farmland Protection Policy Act (7 U.S.C. 4201 et seq.)

Farmland Protection Policy (Department of Agriculture (DOA) – 7 CFR Part 658)

Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994 (59 FR 7629)

2.6 **Public and Agency Consultation**

Pre-assessment consultation letters to gather comments for the preparation of the Draft EA/ERR were sent out in mid-February 2013 (Appendix A-1). Eleven response letters were received (Appendix A-1). The availability of this Draft EA/ERR was announced in the State of Hawai‘i Office of Environmental Quality Control (OEQC) Environmental Notice publication on June 8, 2013 for a required 30-day public review period. Written comments were reviewed by the County of Kaua‘i, which is the Accepting Authority of the EA/ERR. Following the County of Kaua‘i’s review of the written comments, the agency has determined that an Environmental Impact Statement (EIS) is not warranted and a Finding of No Significant Impact (FONSI) is in order.

As part of the Draft EA public review period, 59 parties were consulted and comments from 13 parties were received (Appendix A-2). Of the 13 responses, 10 replied with no comments or concerns. The other three responders’ comments have been noted and the EA has been revised accordingly. Briefly, the recommendations from the State of Hawai‘i Department of Land and Natural Resources (DLNR), work with the Department of Water (DOW) has been initiated to establish potable water service for the new development. In response to the State of Hawai‘i Office of Planning comments, further discussion of the proposed project’s consistency with the objectives and policies set forth in HRS §205 A-2 is included in this EA. In response to the County of Kaua‘i Department of Public Works regarding potential traffic impacts, the project’s consistency with the *Lihue Town Core Urban Design Plan* that calls for walkable communities, is discussed in this EA.

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SECTION 3 ENVIRONMENTAL SETTING AND POTENTIAL IMPACTS

The environmental, social, and economic setting of the project site and the probable impacts of the No Action Alternative and the Proposed Action - Preferred Alternative are described in this section of the report. Impacts are evaluated as to whether they constitute a "significant effect" on a particular environmental setting. Impacts are described as having No Impact, Significant Adverse Impact, or Beneficial Impact, to the environment. The terms "impact" and "effect" are used synonymously in this EA. Impacts may apply to the full range of natural, aesthetic, historic, cultural, and economic resources. The following subsections define key terms used throughout Section 3.

Significance Criteria

A "significant effect" is defined by HRS Chapter 343 as "the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State's environmental policies or long-term environmental goals as established by law, or adversely affect the economic welfare, social welfare, or cultural practices of the community and State," (State of Hawai'i, 2008).

Direct versus Indirect Impacts

Definitions and examples of "direct" and "indirect" impacts as used in this document are as follows:

"Primary impact" or "primary effect" or "direct impact" or "direct effect" means effects which are caused by the action and occur at the same time and place (HAR §11-200-2). For direct impacts to occur, a resource must be present in the particular study area.

"Secondary impact" or "secondary effect" or "indirect impact" or "indirect effect" means effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (HAR §11-200-2).

Beneficial versus Adverse

Impacts from the Preferred Alternative may also have beneficial or adverse effects to the environment. Beneficial impacts are those that would produce favorable outcomes and add value to the environment. Adverse impacts are those that would produce detrimental effects and cause harm to the environment.

Cumulative Impacts

Cumulative impacts are two or more individual effects which, when considered together, compound or increase the overall impact. Cumulative impacts can arise from the individual effect of a single action or from the combined effects of past, present, or future actions. Thus, cumulative impacts can result from individually minor, but collectively significant actions taken over a period of time. The cumulative impacts of implementing the Preferred Alternative along with past and reasonably foreseeable future projects proposed were assessed based upon available information.

Mitigative Measures

Mitigative measures are defined as measures taken to avoid, reduce, or compensate for adverse impacts to a resource. Mitigative measures are identified and discussed for each alternative, where relevant. In this EA, mitigative measures are provided to reduce adverse impacts when levels of impact are significant, ensuring levels of impact are reduced to a level of insignificance. Only those mitigative measures that are practical have been identified.

3.1 **Physical Environment**

3.1.1 Topography and Geology

Existing Conditions

Kaua‘i is the northernmost island in the State of Hawai‘i with an area of 552.3 square miles (sq. mi.) and is over five million years old (University of Hawai‘i (UH), 2012). The shield building volcanism resulting in the island shape is called the Koloa Volcanic Series. Unlike other Hawaiian volcanoes, Kaua‘i lacks the obvious rift zones (Juvik and Juvik, 1998). It contains a caldera complex with a graben on the south side. Remnant volcanic vents trend generally north-south across Kaua‘i and may be found at a few locations on the north and south shores (UH, 2012).

The elevation of Kaua‘i ranges from sea-level up to 5,243 feet (ft) in the center of the island at Mount Kawaikini. Wind, rain, and waves have sculpted Kaua‘i’s terrain into rugged and steep cliffs around the shoreline of the island. The shorelines compose calcareous sandy beaches separated by rocky points and embayments. Some coastline areas on Kaua‘i, such as the Nā Pali Coast, are rugged sea cliffs with knife-edge, steeply-dipping ridges with deep erosional V-shaped valleys (UH, 2012). Waterfalls are found throughout the island. At an elevation of 5,148 ft, Mount Wai‘ale‘ale gets an annual 444 inches (in) of rain per year (Juvik and Juvik, 1998).

The topography of the project site is flat and the southwestern parcel gently slopes in the direction of Hoala Street. The project site rests approximately 200 ft above mean sea level (msl). The project site is covered with grass, shrubs, and a few trees. There is a storage structure on the smaller parcel.

Potential Impacts and Mitigation

<u>No Action Alternative</u>

No significant impacts to the topography or geology are expected to result from the No Action Alternative. The project area is located in the town of Līhu‘e, located below the Kilohana crater (1,143 ft elevation). Līhu‘e is relatively flat lying in the urban zone. Under the No Action Alternative, no construction or change in ground surface is expected. Therefore, the No Action Alternative is not expected to have any impacts on existing topographic or geologic conditions.

<u>Preferred Alternative</u>

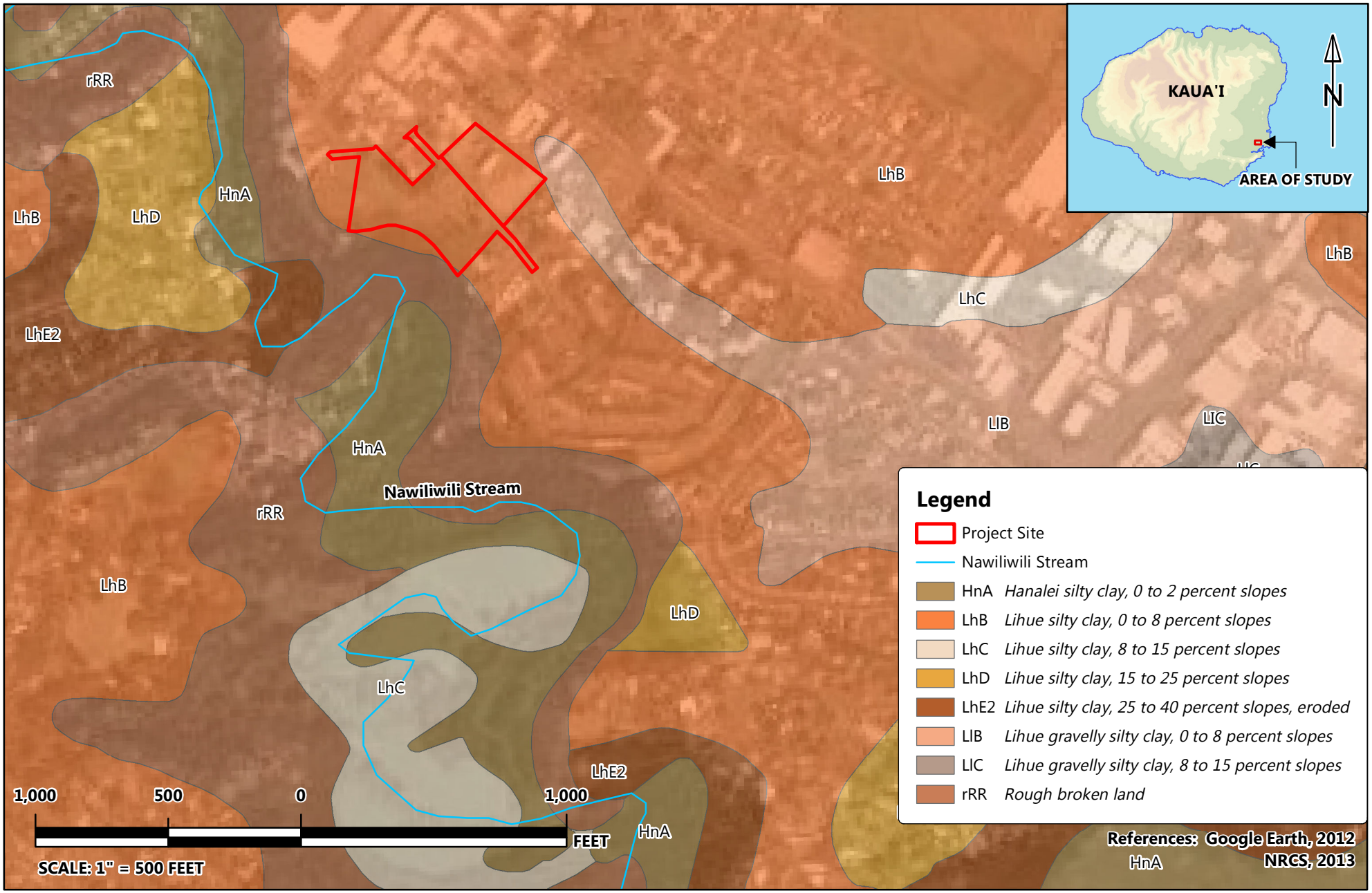
No significant impacts to the topography or geology are expected to result from the Preferred Alternative. The proposed project could slightly alter the elevation of the ground, and surface conditions are expected to remain flat as needed for construction activities. Since the changes in topography would be minimal, no significant impacts to topography or geology are expected to result from the Proposed Action.

3.1.2 Soils

Existing Conditions

The *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Natural Resources Conservation Service (NRCS), 1972) presents details on the soils present on the Island of Kaua‘i. The dominant soil types in the project area are principally of the Līhu‘e Series. This series consists of well-drained soils on upland slopes on the Island of Kaua‘i. These soils developed in materials weathered from basic igneous rock.

Approximately 95% of the project area lies on the Līhu‘e silty clay, 0 to 8% slopes (LhB) (Figure 3-1). This soil is a very dark grayish-brown surfaced layer with mottled subsoil. The other soil type at the project site includes rough broken land (rRR) (Figure 3-1).



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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

SOILS MAP
KAUA'I, HAWAI'I

FIGURE 3-1

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Potential Impacts and Mitigation

No Action Alternative

For the No Action Alternative, no adverse impacts to soils are anticipated. The project site conditions would remain the same.

Preferred Alternative

The Preferred Alternative could have a potential adverse impact on soils during construction activities (e.g., clearing, grading, grubbing, excavation, and trenching) that disturb the earth and soils. Exposed soils are susceptible to erosion, especially if it rains heavily during site work periods. Wind erosion may also cause some unavoidable soil loss, but the greater concern is silt runoff. Adverse impacts would be minimized or avoided as a result of both temporary and permanent erosion and sedimentation control measures that shall be implemented during the construction of the housing units, roads, and utilities installation. This may include silt fences around the project site during construction. Soil impacts will be short term, and because mitigative measures will be implemented, no long-term impacts are anticipated. Proposed work shall comply with State and County erosion control standards and requirements including, but not limited to, preparation of a County-approved erosion control plan.

3.1.3 Fire Hazards

Existing Conditions

The project area is located in a high risk fire hazard zone. There are eight fire stations located throughout the County of Kaua‘i, the closest of which to the project area being located in Līhu‘e. The fire station is located directly adjacent to the project site.

Potential Impacts and Mitigation

No Action Alternative

No significant impacts are expected under the No Action Alternative. Existing potential fire hazards posed by the current conditions would remain the same.

Preferred Alternative

No significant impacts are expected under the Preferred Alternative. Construction activities for the proposed action will not effect the existing conditions of the fire hazards in the project site as construction practices for fire safety will be implemented in accordance with County and State guidelines. These practices include proper fire safety practices and fire hazard awareness. Prior to construction activities, the project site shall be surveyed for the presence of overhead and underground utilities. Daily equipment inspections should be conducted and all vehicles and equipment brought on site should be in proper working condition. All vehicles and equipment should be mounted with appropriately rated fire extinguishers and additional fire extinguishers should also be available at the project site. All on-site workers should be aware of the locations and operation of fire extinguishers. On-site workers should also be aware of the flammability properties of the chemicals they are working with and the proper storage requirements for these chemicals (e.g., flammable storage lockers, storing flammables away from combustibles, etc.). The installation of fire breaks around the project site to control the spread of brushfires should also be considered. On-site workers should also be aware of important safety information such as emergency contact numbers, proper emergency evacuation procedures, and designated smoking areas (if smoking is permitted on site). Implementation of these mitigation measures will reduce the potential impact of fire hazard to less than significant.

Note: The mitigation measures that have been discussed are only some of the measures that shall be implemented for the project to reduce the potential for fire hazards. An extensive safety plan should be established for the project site prior to the commencement of construction activities.

3.1.4 Natural Hazards: Floods, Earthquakes, Tsunamis

Existing Conditions

The Island of Kaua‘i has the potential to be impacted by several natural hazards including flooding, earthquakes, and tsunamis.

Floods

Flood hazard areas are delineated by Flood Insurance Rate Maps (FIRMs) prepared by the Federal Emergency Management Agency (FEMA), National Flood Insurance Program. The project site is categorized as Zone X and defined as an area outside of the 0.2% annual chance floodplain (Figure 3-2).

Earthquakes

In Hawai‘i, earthquakes are generally linked to volcanic activity and occur thousands of times annually; the vast majority of which are at a very small magnitude. Significant earthquakes have recently originated on the Island of Hawai‘i; the most notable of which occurred at a magnitude of 4.9 on March 24, 2012 (United States Geological Survey (USGS), 2012). On Kaua‘i, the USGS predicts a 2% probability in 50 years that a peak ground acceleration will exceed about 30% the acceleration due to gravity. In other words, ground accelerations above 30% that of gravity are likely to occur at a probability of less than 2% in the next 50 years.

Tsunamis

A tsunami is a series of great waves, typically the result of a violent displacement of the seafloor. Tsunamis are characterized by high speeds (up to 560 miles per hour (mph), long wave lengths (up to 120 miles (mi)), and long periods between successive wave crests (up to several hours (hr)). Tsunamis have the potential to inundate the coastline, causing severe property damage and/or loss of life. On Kaua‘i, 317 tsunami events have been recorded since 1835, the largest of which caused waves to run up 88 ft at Port Allen (National Geophysical Data Center (NGDC), 2013) in 1815. The project area is not located in the tsunami inundation zone.

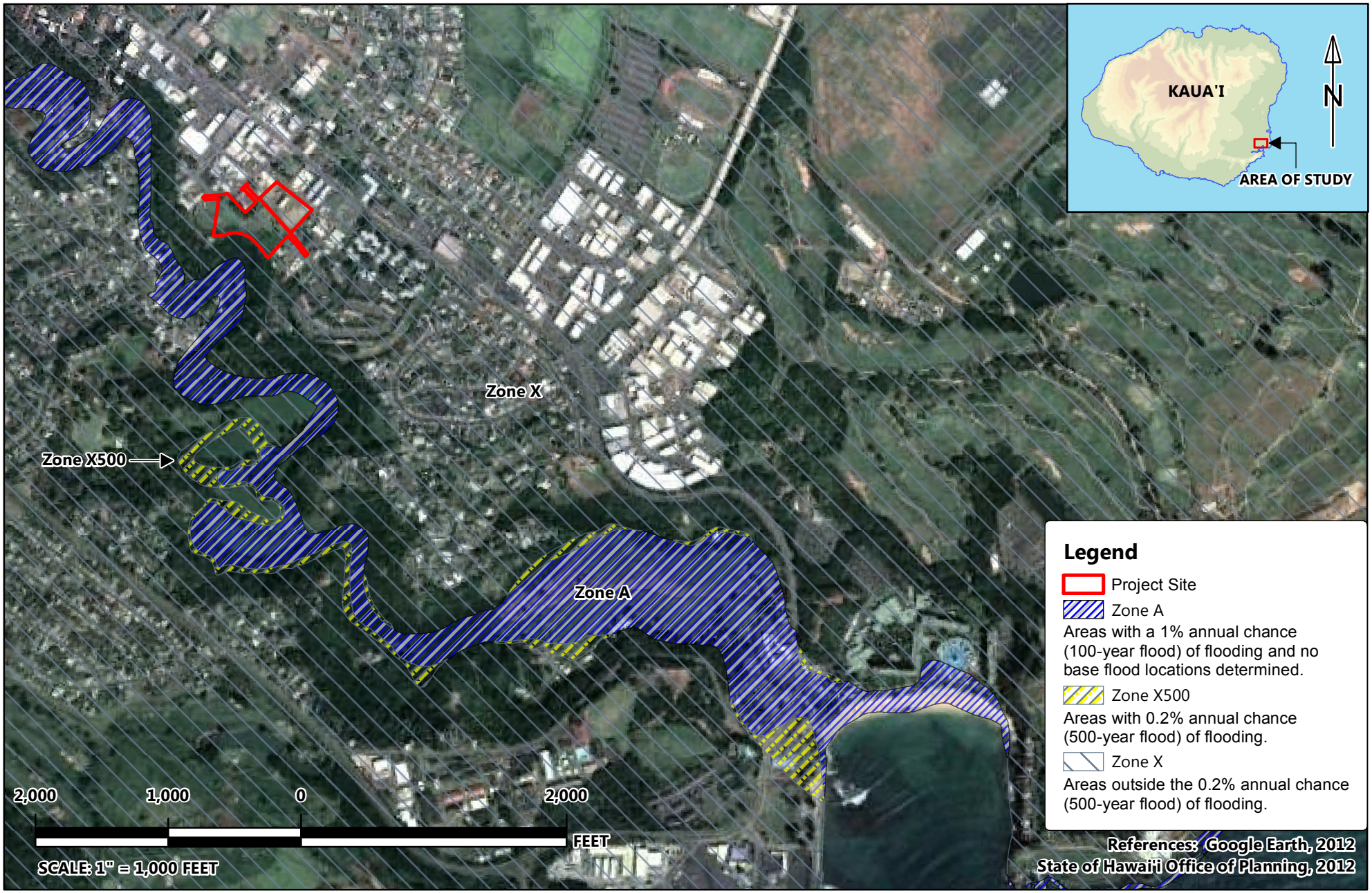
Potential Impacts and Mitigation

No Action Alternative

No significant impacts to natural hazard vulnerability would result from the No Action Alternative. The project area is located outside the tsunami inundation zone and has a very low percentage of flooding probability. Therefore, natural hazard vulnerability in the project area is insignificant.

Preferred Alternative

No significant impacts from the Preferred Alternative would result from its location relative to the natural hazards boundaries from floods and tsunamis. The tsunami inundation zone has a very low probability of being impacted by a tsunami. Natural hazard vulnerability in the project area is insignificant. This alternative would not significantly affect the generation of a natural hazard.



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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

FLOOD HAZARD MAP
KAUA'I, HAWAI'I

FIGURE 3-2

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3.1.5 Biological Resources

Existing Conditions

The Island of Kaua‘i has a wide range of microclimates resulting in diverse habitats of flora and fauna. Critical habitats within the vicinity of the project site are illustrated in Figure 3-3. The United States Fish and Wildlife Service (USFWS) designated critical plant habitats for 83 endangered plant species on Kaua‘i. *Brighamia insignis* is an endangered species on the Island of Kaua‘i with known critical habitat within the vicinity of the project site (Figure 3-3). The Kaua‘i cave wolf spider (*Adelocosa anops*) and Kaua‘i cave amphipod (*Spelaeorchesita koloana*) exist within 272 acres, with some areas partially overlapping the total critical plant habitat on Kaua‘i. The Newcomb’s snail (*Erinna newcombi*) inhabits 4,479 acres of riparian area designated as critical habitat on the Island of Kaua‘i (United States Department of Agriculture (USDA), 2005). Puahiohi (*Myadestes palmeri*), ‘akikiki (*Oreomystis bairdi* [Kaua‘i creeper]), the presumed extinct Kaua‘i ‘akialoa (*Hemignathus procerus*), Kaua‘i nuku pu‘u (*Hemignathus lucidus hanapepe*), Kaua‘i ‘ō‘ō (Moho braccatus [‘ō‘ō‘ā‘ā]), kāma‘o (*Myadestes myadestinus* [large Kaua‘i thrush]), and ‘ō‘ū (*Psittirostra psittacea*) have established recovering habitats. Three offshore islands around Kaua‘i support more than 15 species of breeding seabirds, including the largest ‘ā (*Sula leucogaster* [brown booby]) colony in the State (USDA, 2005).

Endemic species to Kaua‘i are puaiohi, ‘akikiki (Kaua‘i creeper), ‘anianiau (*Hemignathus parvus* [lesser ‘amakihi]), ‘akeke‘e (*Loxops caeruleirostris* [Kaua‘i ‘ākepa]), Newcomb’s snail, the Kaua‘i cave wolf spider, and the Kaua‘i cave amphipod. Endemic forest birds include the ‘i‘iwi (*Vestiaria coccinea*), ‘apapane (*Himatione sanuinea*), and Kaua‘i ‘elepaio (*Chasiempis sandwichnesis sclateri*). Eighty percent of the Hawaiian duck, koloa maoli (*Anas wyvilliana)*, population utilize wetlands on Kaua‘i, and 50% of the State’s nēnē population is found on Kaua‘i (USDA, 2005). Newell’s shearwater (*Puffinus auricularis newelli)*, Hawaiian petrel (*Pterodroma sandwichensis*), and the band-rumped storm petrel (*Oceanodroma castro*), are believed to nest on upper elevation sea cliffs. The petrels and shearwaters are nocturnally flying birds. Hawaiian hawks nest in trees throughout the islands. Native invertebrate species include native bees (genus *Hylaeus*) and native damselflies (genus *Megalagrion*) (USDA, 2005).

In a response letter dated March 7, 2013 from the USFWS, it was stated that the project area is not located near a wilderness area, a wildlife preserve, or a National Wildlife Refuge (Figure 3-3). “There is no proposed or designated critical habitat in the vicinity of the project site. Three seabird species, the federally endangered Hawaiian petrel, threatened Newell’s shearwater, and a candidate for listing, the band-rumped storm petrel, are known to fly over the project area while traveling from sea to their breeding sites. Additionally, the federally endangered Hawaiian hoary bat *(Lasiurus cinereus semotus)* may forage or roost in the vicinity of the proposed housing development.”

TMK parcel (4)3-6-004:009 is vacant land that mainly consists of maintained grass lawns with less than 10 trees in the maintained area; these trees range in height from approximately six to 25 ft. The surrounding border of the property is not maintained and is densely vegetated with tall grasses, shrubs, and trees. Based on a recent survey map prepared for Kaua‘i County Housing Agency, two of the larger trees were identified as a mango tree and an octopus tree. Two smaller trees were identified as Noni trees. The potential for fauna habitat is greater in these areas with the more densely populated vegetation. The smaller parcel consists of maintained grass with small shrubs outlining the property boundary.

Potential Impacts and Mitigation

<u>No Action Alternative</u>

No significant impacts to biological resources are anticipated due to the No Action Alternative. Because no threatened or endangered species are known to exist at the project site and the project area is located outside critical habitat, the No Action Alternative, would not result in loss or destruction of critical

biological resources. No changes to existing conditions are expected to occur with the No Action Alternative.

Preferred Alternative

For the Preferred Alternative, no significant impacts are anticipated within the proposed project area. The project site is not located within a critical habitat and the surrounding properties are not located within a critical habitat. The nearest known critical habitat is a plant habitat located over one mile to the south of the project area (Figure 3-3). Because no critical habitats have been identified within or surrounding the project area, no significant impacts to critical habitats are anticipated.

The threatened Newell's shearwater, the endangered Hawaiian petrel, and the band-rumped storm petrel (candidate for the endangered species list) are known to traverse the project area when flying between the ocean and mountain nesting sites. Seabirds are vulnerable to collision with above ground objects throughout their breeding season of March through December 15. Once grounded, seabirds are vulnerable to predators and are often struck by vehicles along roadways. USFWS recommends using only essential lights, fully shielding all lights and avoiding nighttime construction that requires lighting to avoid and minimize potential impacts to seabirds (USFWS, 2013).

The endangered Hawaiian hoary bat roosts in exotic native woody vegetation and, while foraging, will leave their young unattended in "nursery" trees and shrubs. If trees and shrubs suitable for bat roosting are cleared during the breeding season, there is risk that young bats could inadvertently be harmed or killed. As a result, woody plants greater than 15 ft (4.6 meters (m)) tall should not be removed or trimmed from June 1 through September 15 (USFWS, 2013).

These recommended mitigation measures for the petrels and the hoary bat would reduce the potential impact from the Preferred Alternative to a level of insignificance.

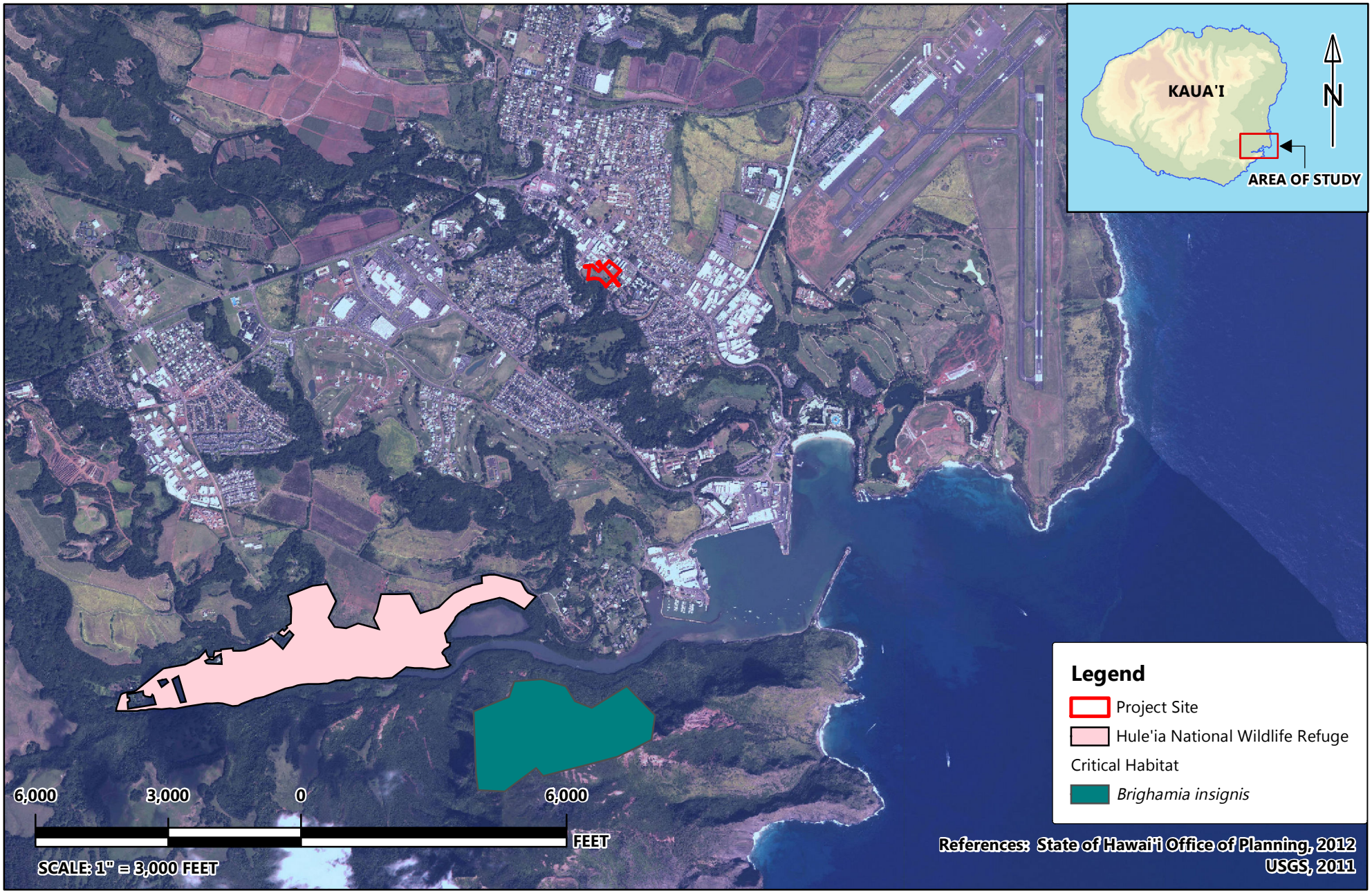
3.1.6 Wetlands

Existing Conditions

The United States Army Corps of Engineers (USACE) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The USFWS National Wetland Inventory identifies one wetland, the Hule'ia National Wildlife Refuge, as part of Nāwiliwili Stream, that lies approximately 800 ft southwest of the project area. It appears that Nāwiliwili Stream is tidally influenced as it empties to Nāwiliwili Bay and eventually to the Pacific Ocean. The wetland area terminates in the proximity of the project area (Figure 3-4).

Coastal wetlands are important to the ecosystem and provide a critical interface between terrestrial and marine habitats. They also provide various functions such as buffering the coastline, capturing sediment, and retaining and transforming nutrients. However, wetlands do have a sediment and nutrient loading threshold which, once crossed, can lead to degradation and loss of the wetland (Bruland, 2008).

Because the project area is topographically higher in elevation from the wetland, there is a potential for on-site project water and/or debris to flow off site. However, the potential for this project water and/or debris to reach the wetland is minimal based on the distance from the wetland to the project site impacts. Additionally, based on publicly available data, none of the wetlands in the project area are identified as critical habitats for any threatened or endangered species.



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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

CRITICAL HABITAT MAP
KAUA'I, HAWAI'I

FIGURE 3-3

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Potential Impacts and Mitigation

No Action Alternative

The No Action Alternative would not result in potentially significant impacts to wetlands as the wetlands are located outside of the project area. Loss or destruction of existing wetlands resources is not anticipated as no construction activities would take place under the No Action Alternative.

Preferred Alternative

The Preferred Alternative would not result in loss or destruction of existing wetland resources based on the distance of the wetland to the project area. However, runoff in the project area would be mitigated by using silt fences and County-approved best management practices (BMPs) for reducing any potential of sediment impacts on the wetlands or other water resources. Facility operations would adhere to County permitting and flood control measures.

3.1.7 Water Resources

Existing Conditions

The project area is located within the Līhuʻe aquifer sector and the Hanamaulu aquifer system. The upper aquifer (201021111 (21111)) has potential for use as drinking water with a salinity of less than 250 milligrams per liter (mg/L) chloride (Cl^-) or freshwater. It is an irreplaceable aquifer with high vulnerability to contamination. The lower aquifer (20102122 (21112)) is similar to the upper aquifer except it has a moderate vulnerability to contamination.

The Hanamaulu aquifer system has a drainage area of 55 sq. mi. High level dike aquifers in the Napali drain to streams and eventually to basal aquifers. Small capacity wells develop water for municipal use (Mink and Lau, 1992). The average annual rainfall in this system is 83 in. Nāwiliwili Stream is located adjacent to the project area (Figure 3-5).

Nāwiliwili Bay is classified as a Class A coastal water. Class A waters are intended for recreational purposes and aesthetic enjoyment, and must be protected. These waters shall not receive waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class (State of Hawaiʻi Department of Health (DOH), 2012). The bay is located over 5,000 ft from the project area. The Island of Kauaʻi does not have any sole source aquifers (EPA, 2013). A response letter was received from USACE on February 26, 2013 stating, "Based on the submitted documents, a portion of Nāwiliwili Stream appears to flow through the southern portion of TMK (4)3-6-004:009. Nāwiliwili Stream is perennial, with end terminus in the Pacific Ocean, and therefore is subject to Section 404," (USACE, 2013). USGS topographic maps show an approximate 50 ft elevation change between the stream and the project site (USGS, 2013). The stream water table is located below the project area boundary. Therefore, it is highly unlikely the project site exists within wetlands, or ordinary high water mark. The project site is also located outside of the flood zone. In addition, a detention basin would be located on the open area of TMK (4)3-6-004:009 adjacent to the stream zone. A response letter was received from USACE on June 10, 2013 stating that the project location consists entirely of uplands and no navigable waters of the U.S. are present. Authorization under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act are therefore not required for this project.

Work is being conducted with the DOW to establish potable water service for the new development to eliminate any concern regarding water availability with the proposed project.

Potential Impacts and Mitigation

No Action Alternative

No significant impacts would result from the No Action Alternative. No change to the water resources in the project area is expected. No construction activities would be performed with the No Action Alternative and therefore, no impacts are expected to occur.

Preferred Alternative

No significant impacts would result from the Preferred Alternative. The bay is located over 5,000 ft from the project area and is not likely to be impacted by the project. The detention basin would capture stormwater and runoff to reduce the potential for sedimentation to Nāwiliwili Stream. Construction activities will implement BMPs to include sediment barriers such as sediment detention basins, silt screens, drain inlet protection, and applicable construction BMPs to protect neighboring sites, Nāwiliwili Stream, and coastal waters from the potential of runoff from the project activities. The contractor is also responsible to comply with National Pollutant Discharge Elimination System (NPDES) requirements, which include a Contractors Certification of NPDES Compliance including the BMPs checklist and a written BMPs plan.

The DOH will require a NPDES permit during the construction period as the project site is greater than one acre. BMPs would include erosion control measures to minimize potential sediment runoff to surface water and potentially groundwater. Any temporary discharge will be treated and/or controlled to the criteria established by the DOH Water Quality Standards. Additionally, a permanent detention basin is planned for the open area of TMK (4)3-6-004:009. This detention basin would help mitigate sedimentation to Nāwiliwili Stream as it would capture stormwater runoff. Since these mitigation measures would be implemented, no significant impacts to water resources are anticipated under the Preferred Alternative.

3.1.8 Hazardous and Toxic Materials Considerations

Existing Conditions

Historical records obtained at the DOH have not indicated environmental concerns at the two properties. However, a complaint was issued in 2001 for TMK (4)3-6-004:009. The parcel was holding non-working vehicles, tires, rubbish, batteries, compost, and soil. Currently, the parcel does not appear to contain these items, and therefore, does not pose an environmental concern to the parcels.

A recent Phase 1 Environmental Site Assessment (ESA) performed by Kimura International for the project site dated October 21, 2011, described the environmental status and history of the project site in accordance with American Society for Testing and Materials (ASTM)-required resources review (Appendix B). The ESA indicated no evidence of gross contamination or illegal dumping of hazardous waste on the project site (Kimura International, 2011). The project site was not listed on any of the available State or Federal environmental databases that were reviewed for the ESA. Conclusions indicated that no recognized environmental conditions exist at the project site, and therefore, no further action for the project site was necessary. Construction activities may generate excess soil that must be disposed of at a local landfill. Quantitative analytical soil characterization requirements are the responsibility of the land owner and may be required by the landfill. One Federal Comprehensive Environmental, Response, Compensation, and Liability Information System (CERCLIS) site was identified within a 0.5 mi radius of the project site, the Līhuʻe Plantation Company, Ltd. It is located at 2970 Kele Street, approximately 0.424 mi northwest of the project site. Hazardous materials were identified at the property in October of 2000. However, since then, the project site was remediated and has received No Further Remedial Action Planned (NFRAP) in 2006. The CERCLIS site is not considered an environmental threat to the project site (Kimura International, 2011).

Seven State-level CERCLIS sites, otherwise known as State Hazardous Waste Sites (SHWS), have been identified within a one mile radius of the project site. These seven sites do not pose environmental risk to the project site because they have received a No Further Action (NFA) designation, are located lower in elevation than the project site, or are located a considerable distance from the project site (*ibid.*).

State leaking underground storage tanks (LUSTs) within 0.5 mi of the subject property were reported at nine different locations. A NFA designation was received for all of these sites except one, the Thrifty Car

Rental at 3120 Oihana Street (0.4 mi from the project site). The site is undergoing remediation and does not pose a threat as it is lower in elevation from the project site (*ibid.*).

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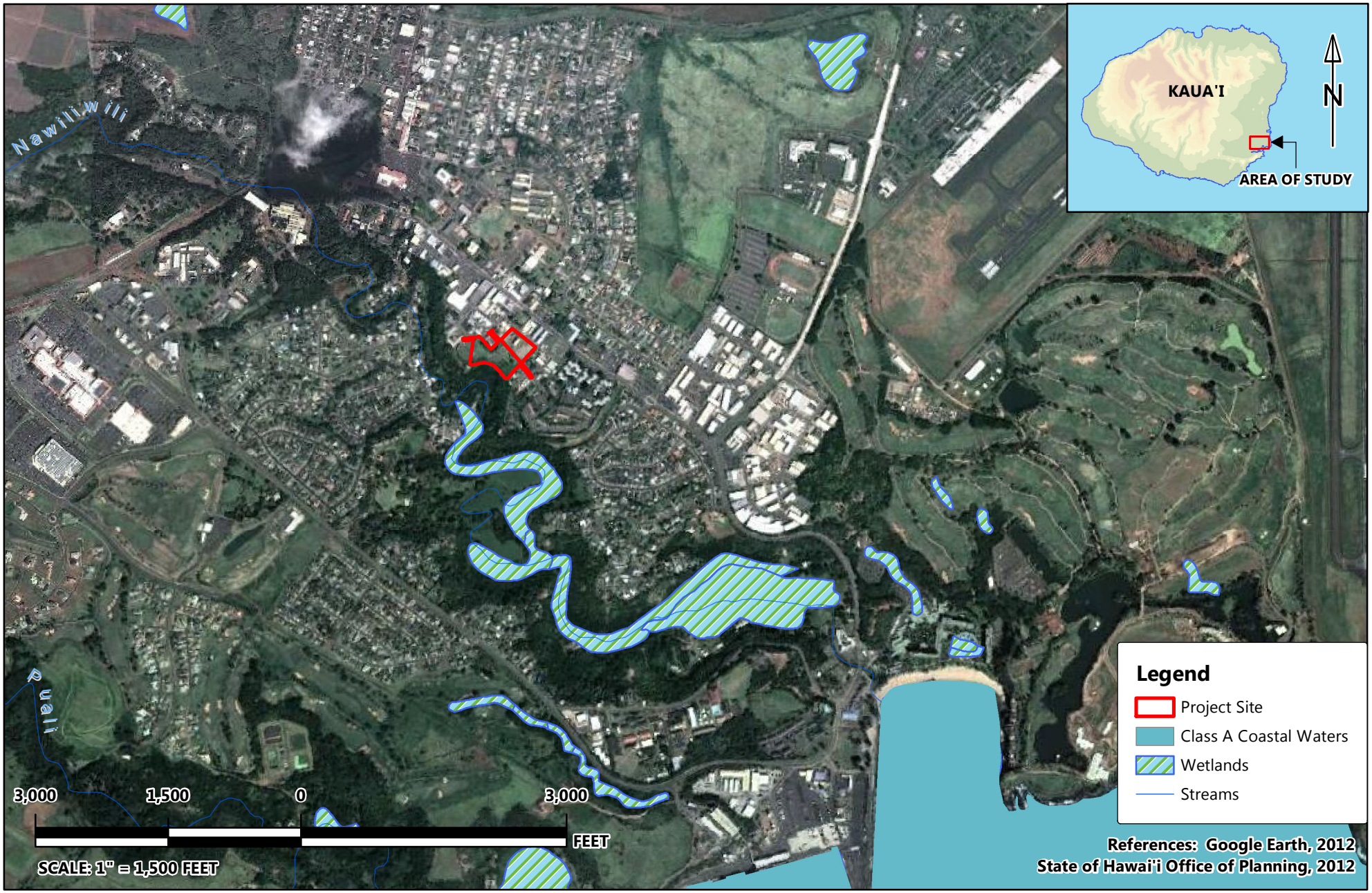

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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

WETLANDS MAP
KAUA'I, HAWAI'I

FIGURE 3-4

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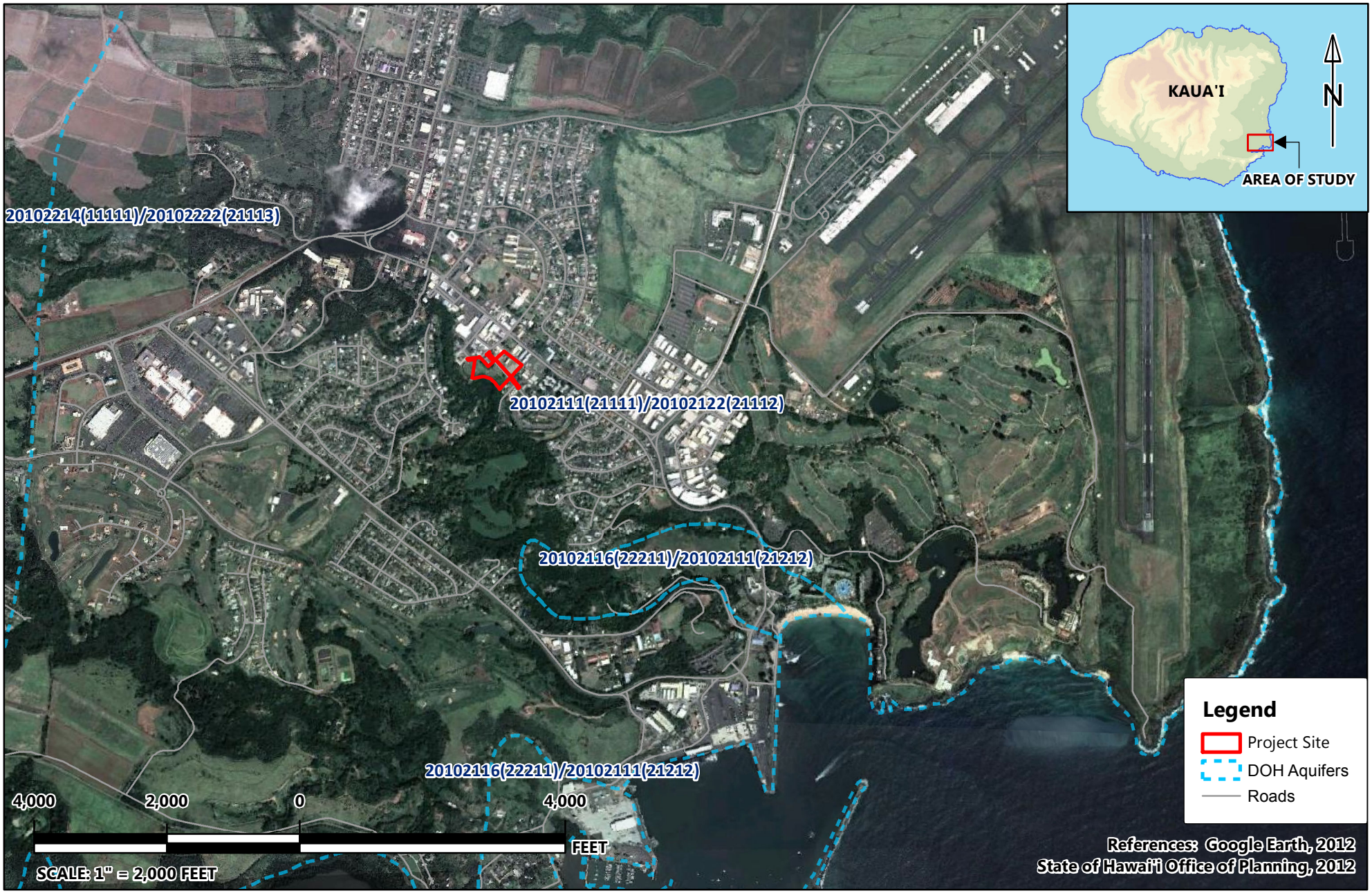

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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

AQUIFER MAP
KAUA'I, HAWAI'I

FIGURE 3-5

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One Brownfield site is located approximately one-half mile from the project site, old Līhuʻe Sugar Plantation, located at 2940 Haleko Road, is not considered an immediate environmental threat to the two parcels as it is located at a lower elevation and is undergoing remediation (Kimura International, 2011).

Potential Impacts and Mitigation

No Action Alternative

The No Action Alternative would not result in any changes to the project site. Therefore, no significant impacts are expected from the No Action Alternative.

Preferred Alternative

The Preferred Alternative would not result in any significant impacts to the project site from hazardous or toxic materials. Construction activities will temporarily increase traffic flow and therefore, increase the potential for pollution from petroleum products from vehicular traffic and large equipment use during housing construction. With proper pollution prevention measures in place, no significant impacts from use of hazardous materials are expected for the project site. Mitigation measures include proper maintenance and proper use of all equipment. Additionally, County BMPs would be used to reduce any potential negative impacts from the equipment and vehicle use. This includes use of oil absorbent pads under equipment requiring maintenance and use of petroleum products. Traffic controls will include at least one lane open at all times for vehicular traffic and for the possibility for emergency vehicle traffic from the fire department enroute to residences in the project area.

3.1.9 Climate and Air Quality

Existing Conditions

The Island of Kauaʻi exhibits an average annual rainfall of 47 in (Giambelluca et al., 2011). The driest weather occurs in June with 1.5 in of precipitation on average; the wettest weather occurs in January with an average of 5.5 in of precipitation. The mountain summit on Kawaikini is one of the wettest spots on Earth with an average 444 in of rainfall at 5,243 ft above sea level (Giambelluca et al., 2011). Humidity averages 66.7% annually. The average temperature in Līhuʻe is 75 degrees Fahrenheit (°F) with the warmest temperature at 84°F in August, September, and October and the coolest temperature at 64°F in January, February, and March (Climatemps.com, 2013).

Although the State of Hawaiʻi experiences volcanic fog ("vog") from volcanic activity on the Island of Hawaiʻi, Kauaʻi is the least impacted by the vog. Air pollutants on Kauaʻi are generated from aircraft operations and vehicles. Vehicular sources are generated primarily from automobile traffic across the island. Aircrafts are probably the most often cited air pollutant source, though they produce the same types of emissions as cars. Aircraft jet engines, like many other vehicle engines, produce carbon dioxide (CO_2), water, oxides of nitrogen (NO_x), carbon monoxide (CO), oxides of sulfur (SO_x), unburned or partially combusted hydrocarbons (also known as volatile organic compounds (VOCs)), particulates, and other trace compounds. Aircraft emissions contain five major, regulated pollutants: VOCs, CO, NO_x, particulate matter (PM), and sulfur dioxide (SO_2). The highest NO_x and PM emissions occur during aircraft takeoff and initial ascent. VOCs and CO emission rates are highest when engines are operating at low power, such as when idling or taxiing (EPA, 2013).

One air monitoring station is located in Niumalu less than one mile inland from the Nāwiliwili Harbor. The station was installed in 2012, but is not an EPA-required station. One exceedance was identified due to cruise ship emissions; air monitoring results otherwise remained below National Ambient Air Quality Standards (NAAQS). Other historical results have remained below the EPA NAAQS (DOH, 2013a). No other air monitoring stations are located on Kauaʻi. The State of Hawaiʻi Clean Air Branch monitors ambient air at 14 stations across three islands. The closest air monitoring station is located on the Island of Oʻahu and other stations are located on Oʻahu, Maui, and Hawaiʻi. As such, impacts to air quality are discussed simply as increases or decreases relative to an assumed baseline. The State of Hawaiʻi Annual

Summary 2010 Air Quality Data results indicated that the air quality monitoring at all monitored stations remained below the State and Federal NAAQS except during New Year's fireworks in December and January and also during a brush fire near an air monitoring station on the Island of Hawai'i.

Potential Impacts and Mitigation

No Action Alternative

No significant impacts to air quality would result from the No Action Alternative as the existing project site conditions would remain the same. No change to the climate or air quality is expected from the No Action Alternative.

Preferred Alternative

The Preferred Alternative would not have a significant impact on air quality. Dust may be generated during construction activities. Dust abatement measures during construction activities will be implemented to include watering of roads, trenches, and bare soil. Temporary increases in vehicular traffic due to construction are anticipated. Short-term impacts from exhaust emissions from construction vehicles are anticipated to be minimal. Long-term increases in exhaust emissions are anticipated within the vicinity of the project site; however, this does not constitute any significant effects island-wide. Long-term impacts to air quality from increased traffic circulation within the project area are anticipated to be minimal. Overall, potential impacts to air quality resulting from short-term and long-term changes are minimal and not significant. Mitigation measures for the proposed project will comply with the DOH Administrative Rules, Title 11, Chapter 60-11.1 "Air Pollution Control." These measures include watering the project site during construction activities.

3.1.10 Noise

Existing Conditions

Noise impacts from construction-related activities are regulated under the HAR, DOH, Title 11, Chapter 46, Community Noise Control. The project site is zoned as R-20 and CG; and as such falls into Class B under the DOH regulations, with a maximum day sound level of 60 decibels (dBA) (7:00 a.m. to 10:00 p.m.) and 50 dBA at night (10:00 p.m. to 7:00 a.m.) (DOH, 2013b). In general, noise due to construction equipment is between 70-100 dBA (Labors Health Safety Fund of North America (LHSFNA), 2013); with earth-moving equipment having the loudest impacts. Based on the Noise Reference Manual, Kaua'i Edition of February 2008, an approved Community Noise Permit may be required for construction projects exceeding 78 dBA or having a total cost of more than $250,000 (based on the value of the building permit). Construction will be allowed from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturdays. The use of certain demolition and construction equipment (such as pile drivers, hydraulic hammers, jackhammers, etc.) shall be limited to 9:00 a.m. to 5:30 p.m., Monday through Friday. Construction projects exceeding the maximum permissible sound levels before 7:00 a.m. and after 6:00 p.m., Monday through Friday, or before 9:00 a.m. and after 6:00 p.m. on Saturdays, or at any time on Sundays and holidays, are allowed only with an approved Community Noise Variance (County of Kaua'i, 2013b).

Potential Impacts and Mitigation

No Action Alternative

No significant impacts to noise are expected to occur under the No Action Alternative.

Preferred Alternative

Potentially significant adverse impacts from noise during the construction phase were initially considered. Because the sound levels are anticipated to exceed the DOH regulations, noise mitigation measures will need to be implemented. Noise disturbances may occur to the surrounding area; however, BMPs, such as mufflers and noise barriers, and proper work practices would be employed to adhere to DOH regulations.

If noise impacts are expected to exceed the maximum permissible sound levels for Class B, a noise permit may need to be obtained from the DOH and sound barriers may need to be installed. It is recommended that the developer consult with DOH for noise permit requirements. Significant impacts to noise as the result of this project, would mainly be due to short-term construction activities. With mitigation measures implemented, noise impacts from the Preferred Alternative would be reduced to less than significant.

3.2 **Social Environment**

3.2.1 Land Use Considerations and Zoning

The project site includes two parcels of land totaling 5.2 acres. TMK parcel (4)3-6-009:001 is currently used as a base yard and has a temporary covered truck port. TMK parcel (4)3-6-004:009 is vacant land with a fence and two locking gates. Ownership history of the two parcels of land was obtained through a phone conversation with the County of Kaua‘i Real Property Tax office. The ownership history of the two parcels is summarized in the Table 3-1 and Table 3-2 below:

Table 3-1: Project Site Tax Records for TMK (4)3-6-004:009

Date	Fee Owner(s)	Transaction/Event
11/27/2002	William Hyde Rice Limited	Sold to Peter Maso Yukimura
7/15/2003	Peter Maso Yukimura	Sold to Elesther Calipjo
7/22/2004	Elesther Calipjo	Sold 1.68 acres to Līhu‘e Christian Church
8/3/2004	Elesther Calipjo	Sold remaining 3.609 acres to Līhu‘e 56 LLC as Parcel 1
8/29/2007	Līhu‘e 56 LLC	Sold to Westridge Properties
10/2012	Westridge Properties	Sold to County of Kaua‘i

Table 3-2: Project Site Tax Records for TMK (4)3-6-009:001

Date	Fee Owner(s)	Transaction/Event
1/24/2003	William Hyde Rice Limited	Sold to Līhu‘e Credit Union
7/6/2007	Līhu‘e Credit Union	Sold to Westridge Properties
10/2012	Westridge Properties	Sold to County of Kaua‘i

According to the State of Hawai‘i Land Use Commission (LUC) district classifications, the two parcels are designated as urban (Figure 3-6). “The Urban District generally includes lands characterized by “city-like” concentrations of people, structures and services. This District also includes vacant areas for future development,” (LUC, 2013). The State of Hawai‘i Department of Agriculture (HDOA) has developed a land classification system called Agricultural Lands of Importance to the State of Hawai‘i (ALISH), in order to define the agricultural resource value of soils and land statewide (HDOA, 1977). This system describes land as being (a) prime lands, defined as soils best suited to mechanized field crops, (b) unique, defined as soils other than prime that can be used for high value crops (e.g., coffee, taro, and/or watercress), and (c) other lands, defined as lands which need irrigation or require commercial production management and are neither prime, nor unique. The project parcels are not classified as ALISH (Figure 3-6).

Kaua‘i County zoning designations were retrieved through contact with the County of Kaua‘i Planning Department. TMK parcel (4)3-6-004:009 is zoned as R-20. TMK parcel (4)3-6-009:001 is zoned as CG. R-20 residential density district allows for 20 dwelling units per acre of land. CG zoned lands include

uses and services which are less frequently used, are normally a central commercial center serving several residential neighborhoods and which are less compatible with the environmental qualities of residential districts as stated in the County of Kaua‘i Comprehensive Zoning Ordinance (CZO). Land uses must comply with the County of Kaua‘i CZO (County of Kaua‘i , 2013b).

Potential Impacts and Mitigation

No Action Alternative

The No Action Alternative would not have any impacts to land use and zoning. The existing conditions would remain the same and the land use and zoning is expected to remained unchanged.

Preferred Alternative

The Preferred Alternative would not have any adverse impacts to land use and zoning. These land designations at the project site are in accordance with the LUC designation of urban and does not fall into the state ALISH classifications (Figure 3-7). The county zoning for the two parcels are R-20 and CG. The expected affordable housing development is expected to comply with the CZO for the R-20 zone at TMK parcel (4)3-6-004:009. TMK parcel (4)3-6-009:001 is zoned as CG and may require a Use Permit for the affordable housing development. It is recommended that Kaua‘i County Housing Agency or the developer consult with the County of Kaua‘i Planning Department for any land use permits. The maximum residential and resort densities within the CG district follow that which is permitted in an R-20 district (Section 8-5.8 of CZO). All project development must comply with the County of Kaua‘i CZO.

3.2.2 Historical and Archaeological Considerations

This EA included the preparation of an Archaeological Inventory Survey (AIS) (Appendix C). The AIS conducted by Scientific Consultant Services, Inc. (SCS) is included as Appendix C, and is summarized below.

Existing Conditions

Historic Era of Project Lands

Traditional and historic land use in the vicinity of the project area was quite untouched by invasive species, being vegetated densely in native species of *koa* (*Acacia koa*), sandalwood (*Santalum* spp.), and *hau* (*Hibiscus* spp.). Native subsistence practices, particularly fishing and cultivation of taro (*Colocasia esculenta*), drove the economy.

During the early years of Līhu‘e, 19th century, several European settlers attempted to start farm industries in the area. Following the failure of this endeavor, cattle ranching and supply dairy products, beef, and hide to whalers began. Although marginally successful, ranching did not become a major industry in this area.

In 1849, the first sugar plantation in Līhu‘e began to develop. Over the following four decades, the sugar business grew to over 30,000 acres in Līhu‘e. Corresponding with the growth of this plantation, reservoirs, ditches, and tunnels were engineered to irrigate water to the growing fields. The economy produced by the Līhu‘e Plantation propelled Līhu‘e Town into a major population center in Kaua‘i, all on the richly arable soils of Līhu‘e and Nāwiliwili.

Historical Land Use

Kalapakī Ahupua‘a, where the current project area is located, may be best known during traditional times (pre-1778) for the presence of several *heiau* including: Ninini Heiau and Kuhiau Heiau. Both *heiau* were noted in previous archeological studies. Prior to western contact, Kalapakī Ahupua‘a and especially Nāwiliwili Ahupua‘a were heavily cultivated with a full range of Hawaiian crops such as taro, breadfruit trees, and bananas. Remnants of past cultivation litter the valley from mountain to sea. Arboriculture played a large role in Kalapakī and Nāwiliwili during traditional times. The project area, also known as

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STATE LAND USE DISTRICTS MAP
KAUA'I, HAWAI'I

FIGURE 3-6

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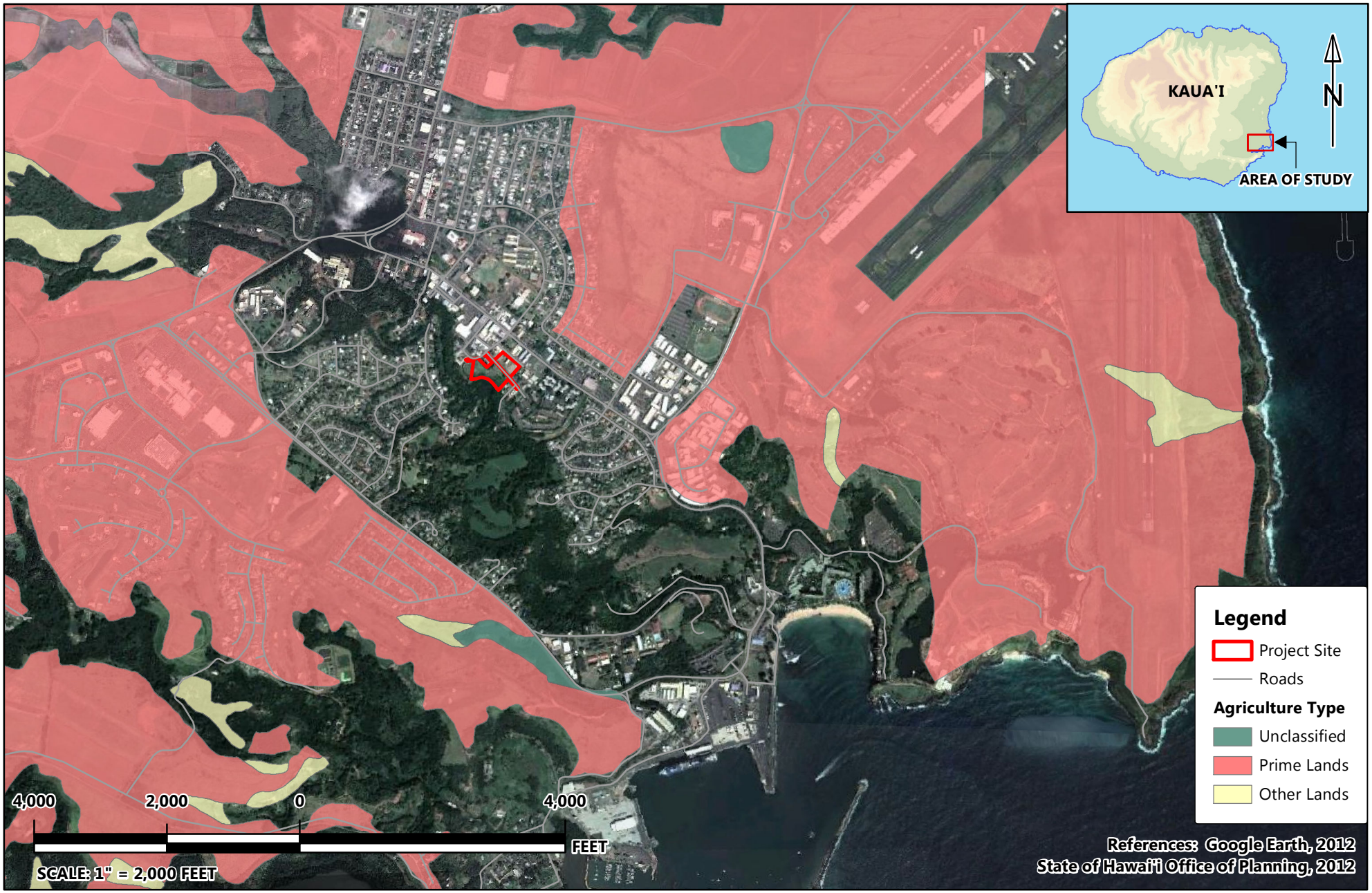

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KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

ALISH MAP
KAUA'I, HAWAI'I

FIGURE 3-7

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Rice Camp, was used for housing migrant plantation workers in the early 1900s. No structures from its use as a plantation remain at the project site.

Previous Archaeological Investigations

Over the past few decades in Kalapakī Ahupuaʻa, there have been 12 or more investigations conducted in Līhuʻe. More archaeological work has also been completed in the adjacent Nāwiliwili area. Based on a previous archaeological assessment performed by W.C. Bennet on the Līhuʻe-Wiliwili area, three archaeological sites were identified (SCS, 2013a). These sites are labeled as Site – 98, Site – 99, and Site – 100. Site – 98 was identified as Niumalu Fishpond, a fresh water pond located on the north bank of the Hulēʻia River. Site – 99 and Site – 100 were *heiau* that have long-since been destroyed; Kuhiau Heiau was located near the current courthouse, and Ninini Heiau was located on what is now Kauaʻi High School property. Locations of these sites are included in the AIS found in Appendix C.

Further assessments conducted by Walker and Rosendahl to the north and east of the project site suggest that no surface structures were noted and only several small, isolated coral fragments were identified during excavation of trenches (SCS, 2013a). McMahon also conducted an assessment of three parcels adjacent to the airport and extending into Līhuʻe. Three previously identified historic-period residences were identified, but no cultural resources were found. In 1993, Cultural Surveys Hawaiʻi conducted burial treatment for a historic cemetery, Nāwiliwili Cemetery. Forty-eight intact and partially intact burials were relocated and designated for a private memorial park.

Three previously identified sites occur within the vicinity of the project area, both to the north/northwest and to the south. The sites were all recorded by Kikuchi and Remoaldo (SCS, 2013a). Site 11-B001 is a historic site: the Līhuʻe Lutheran Church Cemetery. Site 11-B002 is a Japanese Cemetery, but may have been relocated. Site 11-B003 is the Līhuʻe Lutheran Church Cemetery/Līhuʻe Public Cemetery.

According to the Hawaiian Almanac (SCS, 2013a), four *heiau* existed in the ahupuaʻa of Kalapakī and Nawiliwili:

- The Kuhiau Heiau in Nāwiliwili was large, paved, and covered an area of about four acres. By the early 20th century, this *heiau* had been long since destroyed.
- The Ninini Heiau in Kalapakī marked a site near the Nāwiliwili lighthouse, and was reported to be destroyed by the early 20th century.
- The Ahukini Heiau in Kalapakī was described as a *heiau* of medium size, with foundation stones intact when the Hawaiian Almanac was published (i.e., 1907).
- The Pohakoelele heiau in Kalapakī marked a site of medium size, also destroyed by the early 20th century.

Site Visit

SCS conducted an AIS of the project site. Both a pedestrian survey and subsurface testing were conducted.

Two archaeological sites were identified; these sites are labeled as site 50-30-11-2194 and 50-30-11-2195 (Appendix C). However, neither was empirically confirmed during the AIS. Site 50-30-11-2194 consists of a historic-era irrigation tunnel which courses beneath both parcels in a north-south fashion, and out falls into Nāwiliwili Stream Valley to the south of Parcel 009. The presence of the tunnel was confirmed by ground penetrating radar during a geophysical investigation of the parcels by Hamili in September 2012. The tunnel most likely pre-dates 1910 corresponding to the successful growth of sugar cultivation. Additionally, a location map was provided by the Kauaʻi County Housing Agency indicating the approximate location of the underground tunnel (Figure 3-8) (County of Kauaʻi, 2013a). Site 50-30-11-2195 consists of a burial area by the Hoʻokano family. The number and presence of the burials

were noted in a 2004 letter authored by the late LaFrance Kapaka-Arboleda (Appendix C). William and Maraea Hoʻokano were the parents of 20 children, of whom 14 died and 6 survived, based on the 1910 U.S. Census. The account written by LaFrance Kapaka-Arboleda and the census information indicate the project site may contain at least four infants, and likely a total of 14 infant burials. This area occurs within a protected zone along the northern portion of Parcel 009.

In a letter dated April 3, 2013, Kalani Iwiula, a relative of the Hoʻokano family, requested the protection of the burials located at the project site in accordance with Hawaiʻi State Constitution, Article XIII Section 7 Traditional and Customary Rights and in accordance with Chapter 6E, HRS (Appendix D). He also asked that the burials not be removed and be left in place and that the County of Kauaʻi and State Historic Preservation Division (SHPD) provide the necessary protection of this historical burial.

During subsurface testing, a total of 19 stratigraphic trenches of variable length and depth were excavated on the parcels, 13 trenches on Parcel 009 and six trenches on Parcel 001. Testing predominantly revealed homogenous silty clay strata. The parcels are the former location of Rice Camp, once occupied by migrant workers in the early 1990s. Given the vast amount of clearing on the parcels, cultural materials were likely below the surface. Only one historic element was identified to be an ink bottle. According to SCS, grubbing and grading of the parcel following camp occupation has removed almost all traces of the camp. It is presumed that when the parcel was cleared, surface and upper subsurface soils were bulldozed to the south, over a small adjacent slope that leads down to Nāwiliwili Stream. Modern garbage and possible historic materials were mixed into the large silty clay matrix along the slope. That these lands were utilized for a lengthy duration for sugar cane also reflects the lack of cultural materials.

Potential Impacts and Mitigation

No Action Alternative

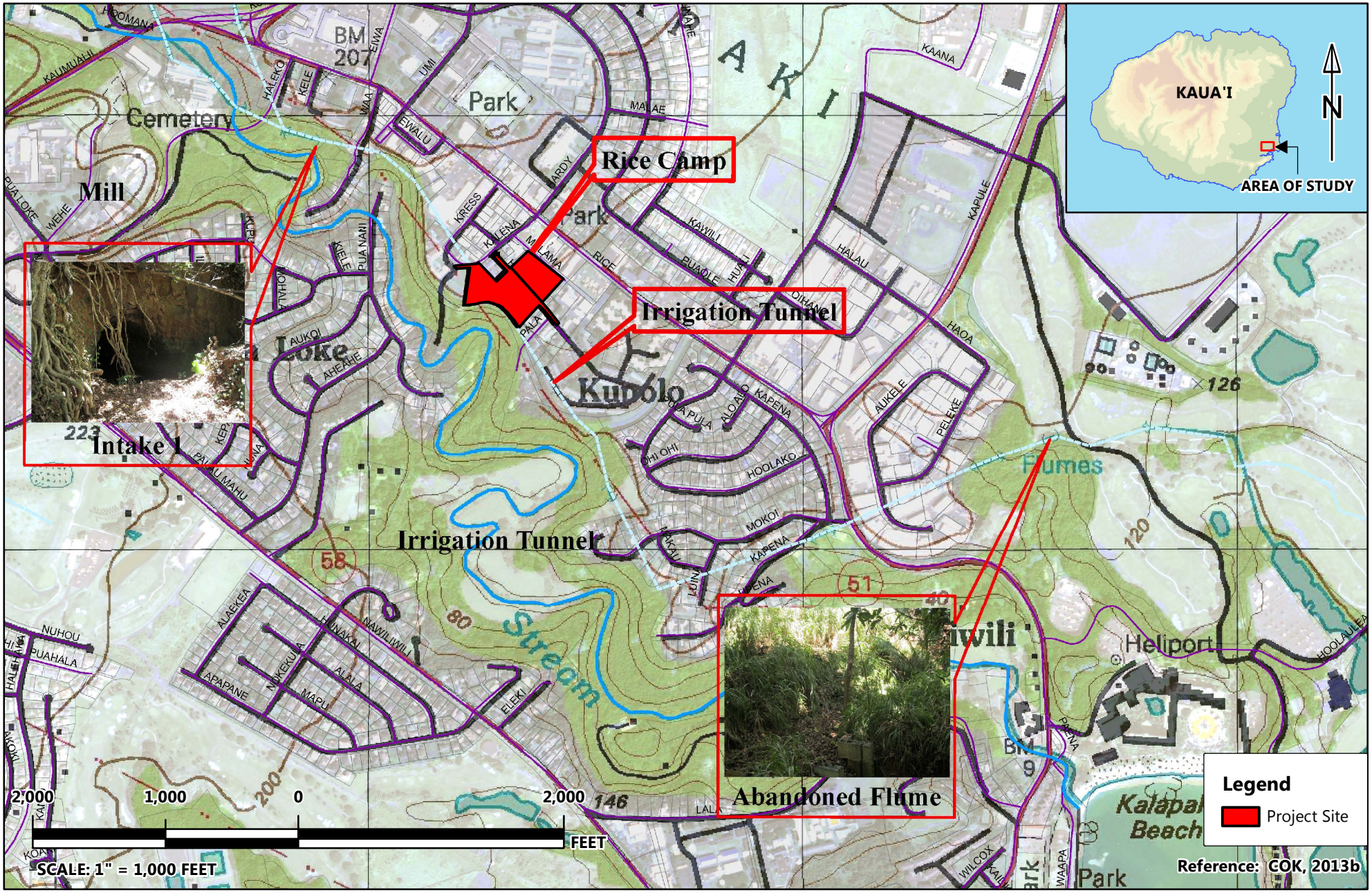
No potential impacts are associated with the No Action Alternative as no change to the current land would occur. There would be no loss or destruction of historic or archaeological resources and no infringement of State law.

Preferred Alternative

The Preferred Alternative would not result in any significant impacts during ground altering work on either parcel. While two historic properties have been identified on the parcels, given the lack of significant findings during the pedestrian survey and subsurface testing, only one task is recommended for the parcels. Prior to construction, an existing Burial Treatment Plan for the known burial site should be followed accordingly, with a wrought-iron fence being erected around the site for preservation, as per the wishes of the descendants and the Kauaʻi/Niʻihau Islands Burial Council. If human osteological remains or a potential archaeological site were uncovered during construction, site work would cease and the Hawaiʻi SHPD would be contacted in compliance with HRS Section 6E. These mitigation measures will ensure no loss or destruction of historic and archaeological resources, avoiding adverse impacts to potential sites, and ensuring compliance with State laws and regulations. These mitigation measures would reduce any potential impacts associated with the Preferred Alternative to a level of insignificance.

3.2.3 Cultural Impact Assessment (CIA)– HRS Chapter 343

The Cultural Impact Assessment (CIA) for the proposed project, conducted by McMahon Consulting (2013), is summarized below. This CIA was prepared in accordance with HRS Chapter 343 and is provided as Appendix E of this EA. This document is intended to support the project's environmental review and may also serve to support the project's historic preservation review under HRS Section 6E-8 and HAR Chapter 13-275.



Environet, Inc.

KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

IRRIGATION TUNNEL LOCATION MAP
KAUA'I, HAWAI'I

FIGURE 3-8

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Cultural Background of Project Lands

Pre-Contact Hawaiian Habitation

The archaeological record indicated pre-contact Hawaiian occupation from Anno Domini (A.D.) 1100 to 1650 in the general vicinity of the project area. Vegetation during this time consisted of lowland mesic forest, woodland, and shrubland (Juvik and Juvik, 1998). The coastal zone of the Kalapakī and Nāwiliwili Ahupuaʻa were characterized by a relatively dense population compared to upland areas, *heiau*, and numerous trail systems. There were fishponds in both the Nāwiliwili and Kalapakī Ahupuaʻa's. Plateau lands, like the present project area, were typically less intensively utilized in traditional Hawaiian times. However, dryland cultigens, such as sweet potatoes, dryland taro, wauke, ti leaf, and banana, were likely to have been cultivated. It is also possible that the project area was transformed into savannah lands to provide for the growth of grasses like pili, which was used for construction purposes. There are no records of major trails running through the project area. Such trails within the Nāwiliwili and Kalapakī Ahupuaʻa were likely to have been located on land further inland (*mauka*) or seaward (*makai*).

Early 19th Century

Missionaries, travelers, and surveying expeditions provide the majority of the early written records for the project area and surrounding lands during the early 19th century. In 1842, the first missionaries settled in Līhuʻe, established multiple schools, and attempted to grow cotton; however, they were unsuccessful.

In the 1830s, the Governor Kaikioewa founded the village that eventually developed into what is now Līhuʻe (translated as "cold chill"), which became a major commercial center. By 1830, the sandalwood trade had waned and the whaling industry was just beginning. Also, commercial agriculture was being established on Kauaʻi.

Middle to Late 19th Century

The middle 19th century distinctly changed Līhuʻe, primarily due to private and public land ownership laws known as the Mahele, ranching, and commercial sugarcane agriculture. Density estimates indicate approximately 1,050 people were living in the greater Nāwiliwili area at this time (McMahon, 2013).

The Mahele was instated during the time of Kamehameha III, which resulted in significant land reform. This legislature resulted in the Hawaiian Kingdom being divided into three main types of land: government land; *aliʻi* (chief) lands; and commoner lands. However, the divisions resulted in about 10,000 claimants obtaining approximately 30,000 acres, and 252 chiefs dividing up about a million acres; thereby disenfranchising many or most of the Hawaiian people.

A major deleterious effect on the natural environment in this area of Kauaʻi occurred during this time by the introduction of cattle and horses, which destroyed vegetation and encouraged soil erosion. They were allowed to run wild, and for a time under royal *kapu* (restriction), which resulted in either lands being destroyed by roaming cattle or walls being erected to prevent them from entering homes and gardens.

During this time period, the project area was utilized for ranching and stable activities, and according to the Kauaʻi Historic Society, was known as Stable Camp. Later the name changed to Rice Camp, in honor of William Rice.

20th Century

Historic maps show that by the early 20th century, the entire project area and surrounding lands were utilized for sugarcane cultivation. With the change in land use, the architectural landscape was developed to include ditch systems, railroads and engine houses, bridges, interisland shipping storage facilities, and housing.

The Kīpū Plantation, a commercial sugarcane producer in operation between 1907 and 1942, used the land encompassing the project area as single-walled construction homes for employees, known at that time as Rice Camp.

An influential company during this time period was the Līhuʻe Plantation, which remained a successful commercial operation for most of the 20th century, in part due to continued interest in technological innovation. For example, in 1912 the Līhuʻe Plantation installed two 240-kilowatt generators on the slopes of the Kilohana Crater, becoming one of the first hydroelectric power producers in the Hawaiian Islands. The Līhuʻe Plantation closed in 1920, when it was converted into housing for laborers.

Community Contact Findings

An effort was made to contact and consult Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about the proposed project. Information on life in and around the project area, tunnels and drainage ditches from the plantation irrigation system, the Hoʻokano-Panui family burial reported to be on the project site, and any trails running through the project area were specifically inquired about. Interviews were conducted with several community members (McMahon, 2013).

No informant could provide information on any traditional gathering rights or trails on the project area properties. Interviews revealed a letter, dated in 2004, from the former Chair of the Kauaʻi Island Burial Council, LaFrance Kapaka, claiming the existence of four unmarked burials on parcel (4)-3-06-004:009. According to Kapaka, the graves were from the Hoʻokano family, who lived in Rice Camp throughout the 1900s. Further, this letter states that after Hurricane Iniki, the parcel was used as a baseyard for Fredstad Kaluahine and his heavy equipment.

Research from the Kauaʻi Historical Society revealed a map which indicates that there was once a stable and a corral on the project site. However, the date of this map is unknown.

Interviews with Scott Johnson provided information on an extensive tunnel and train system in Līhuʻe, as well as the drainage tunnels on the project site.

Further interviews revealed that shortly after 1991, only a few plantation houses were left on the property. A developer demolished the homes, with plans for a project which never was developed. The County of Kauaʻi acquired the parcels in hopes of developing the proposed project.

Conclusions and Recommendations

Extensive archaeological, historical, and oral-historical documentation provide evidence of pre-contact Hawaiian habitation from A.D. 1100 to 1650. During this time, the coastal areas were characterized by a relatively dense population compared to surrounding lands, several *heiau*, and numerous trails. Additionally, fishponds were reported in both Kalapakī and Nāwiliwili. The present project area may have been utilized for planting of dryland crops, as well as the gathering of timber and medicinal plants. There are no records of major trails running through the project area. Such trails would have likely been located more *mauka* or *makai* of the project area.

During the early 19th century, the project area was utilized for ranching and stable activities, and, according to the Kauaʻi Historic Society, was known as Stable Camp.

Sugarcane cultivation and plantation infrastructure was the dominant land use within the project area and surrounding lands throughout the first half of the 20th century. These activities would have likely eliminated any surface properties related to traditional Hawaiian culture that may have formerly existed. Further, the fact that it was private property would have restricted access by cultural practitioners who may have formerly utilized the area. Therefore, the project area itself is unlikely to contain any as-yet undiscovered, and intact historical and cultural properties or deposits, given the extent of historic and modern development and construction.

Community consultation revealed the belief that the burial site cited by LaFrance Kapaka should be protected, and a fence be placed around the burial location. A summary of the community consultation is included in Section 3.2.4.

Potential Impacts and Mitigation

No Action Alternative

No significant impacts to cultural resources are anticipated under the No Action Alternative. No change to existing conditions is expected.

Preferred Alternative

No significant impacts would result from the proposed activities of the Preferred Alternative. Furthermore, the CIA (McMahon, 2013) concludes that future development within the project area would not result in adverse impact upon native Hawaiian cultural resources, beliefs, and practices. Results of the AIS (SCS, 2013a) indicated that no archaeological resources, aside from the burial site, are known to be present at the project site.

3.2.4 National Historic Preservation Association (NHPA) Section 106 Consultation

NHPA Section 106 consultation letters were sent out in March 2013 to several native Hawaiian organizations: Hui Kaleoʻo ʻĀina Hoʻopulapula, Hui Mālama Learning Center, Association of Hawaiian Civic Clubs (Kauaʻi Civic Club), Kauaʻi Island Burial Council, Office of Hawaiian Affairs, Deputy State Historic Preservation Officer, and Kauaʻi Historic Preservation Commission (Appendix F). The letter notified the organizations of the community meeting to be held on April 4, 2013. A meeting notice was published in the Garden Island News of Kauaʻi on March 23rd, 2013 and March 30th, 2013. The area of potential effect is illustrated in Figure 3-9.

Community Meeting

One community meeting was held at the Kauaʻi County Housing Agency conference room ʻAʼ on April 4th, 2013 at 6 p.m. to gather information regarding the proposed housing development. In addition, this meeting was also conducted to initiate consultation in part of the Section 106 process. Approximately ten persons attended the community meeting. Nine of the 10 attendees were project development team members including SCS, Nancy McMahon, Environet Inc., Vitus Group Developers, and the Kauaʻi County Housing Agency. A single community member attended, Healani Trembeth.

The meeting mainly entailed a discussion on the burials located at the project site. SCS provided additional site history and discussed the Hoʻokano family line as additional burials may be present at the project site (Section 3.2.2). Ms. Trembeth requested to have Tom Takahashi or an elder do a site visit to identify any *kapu* at the project site. The Kauaʻi County Housing Agency arranged to have Tom Takahashi review the project site on April 18th, 2013. The Kauaʻi County Housing Agency coordinated with SCS as they have requested to attend. Persons present at the site visit included Tom Takahashi, Klayford Nakaahiki (Kauaʻi County Housing Agency), Barbara Say (Kauaʻi Island Burial Council), Milton Ching (SCS), and Jim Powell (SCS). Results of Tom Takahashiʼs site visit indicated that the general vicinity of the burial site is around the mango tree and the former house was located west of the mango tree. SCS hand-cleared the general area, approximately 25 ft radius, around the base of the mango tree. No headstones or other burial markers were encountered.

However, certain types of plants noted by persons familiar with the burial site were encountered; these included ti plants, plumeria trees, avocado trees, lily plants, and a royal palm. These plants indicate the location of the burial site. SCS marked these plants with green flags. SCS recommends a rectangular area of approximately 50 x 70 ft surrounding the mango tree be enclosed by an appropriate fence with a gate. The area that the fence will enclose should be hand cleared (no machine use). The preservation area is located at the western edge of the property. The area is marked with orange and pink flagging tape at the four corners of the preservation area (SCS, 2013b). With the incorporation of delineation and

fencing of the identified cultural resource as specified by the archaeological consultant and concurrence by consulted community, no adverse effect on existing cultural resources is anticipated.

3.2.5 Circulation and Traffic

Existing Conditions

TMK Parcel (4)3-6-004:009 can be accessed from Kalena and Hoala Streets. TMK Parcel (4)3-6-009:001 can be accessed from Hoala and Mālama Streets. The intersection of Kalena and Rice Streets is a signalized intersection. Kalena Street has a left turn lane and is a two-lane road. Rice Street is the main road anticipated to be used to access the project area from other locations. Rice Street is a four lane road. Kalena Street and Hoala Street is a T-intersection. Hoala and Mālama Streets are one lane narrow roads. The surrounding area includes commercial and residential properties.

Potential Impacts and Mitigation

No Action Alternative

No significant impacts are expected to occur as a result of the No Action Alternative since no traffic changes are expected to occur.

Preferred Alternative

Temporary impacts are anticipated for the construction phase of the project. Various types of impact typically caused by construction work include detours, longer commute times, and congestion, relative to existing traffic conditions. The temporary impacts would be controlled with mitigation measures including building alternative routes for the commuters and informing the general public about the construction activity schedule and the alternate routes before the project breaks ground. With the mitigation measures incorporated, the temporary impacts of the construction work would be insignificant.

Long-term impacts are anticipated with the affordable housing development. Although senior residents are less likely to possess a vehicle or commute by vehicle in comparison to younger residents, traffic is expected to increase due to visitors, health care professionals, and housing services. In order to mitigate these impacts, additional traffic features may need to be installed, which may include traffic lights and/or widening of roads. The County of Kaua‘i plans to upgrade the road system post-construction to provide easy access to the housing units. With these upgrades, long-term impacts would be mitigated to a level of insignificance.

Traffic to and from the project area would incorporate use of Kalena Street and Rice Street at minimum. Workers commuting to and from their place of residence to the project site as well as the traffic of the operating equipment from their storage location are the main two factors for traffic that could potentially impact normal traffic commuter times. A traffic impact analysis is not being prepared for this project primarily because as a senior residential development any increase in project related traffic volume is expected to be minimal. In addition, this project is consistent with the goals of the Līhu‘e Town Core Urban Design Plan, adopted in March 2010, which envisions the Rice Street neighborhood as creating pedestrian-oriented, walkable environments in the Līhu‘e Town Core.

The Department of Public Works (DOPW) issued a letter dated April 24, 2013 in response to the pre-assessment consultation process. The letter indicated that “pursuant to Section 2.035 (C) of the Subdivision Ordinance, curbs, gutters and sidewalks shall be provided on all proposed or existing streets within or abutting the subdivision in Commercial and Resort Districts, and in Residential Districts where the density permitted is ten (10) units or more per acre (DOPW, 2013). Construction and improvement details will be provided to the County DPOW during the building permit application review phase for this project.

Environet, Inc.

KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

AREA OF POTENTIAL EFFECT MAP
KAUA'I, HAWAI'I

FIGURE 3-9

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3.2.6 Social Factors and Community Identity

Existing Conditions

According to the 2010 census, the population of Kaua‘i is approximately 67,000 residents, which is approximately 9,000 more residents from the year 2000 (U.S. Census Bureau, 2010). The town of Līhu‘e has a population of 6,455 which is approximately 10% of the total population of Kaua‘i County. Persons between the ages of 18 years through 65 years account for 58.4% of the population of Līhu‘e with 22.6% under 18 years and 19.0% over the age of 65 years.

The County of Kaua‘i General Plan projects a resident population ranging between 65,300 to 74,300 residents for the year 2020 based on data from the 1990s (County of Kaua‘i , 2001). The U.S. Census Bureau for 2010 estimates the population for 2020 to be 75,640 residents, which is slightly more than the maximum projection from 1997 (Table 3-3).

Table 3-3: Resident Population Projection

Year	Resident Population Projection for Kaua‘i County
2010	67,226
2015	71,380
2020	75,640
2025	80,000
2030	84,380
2035	88,730
2040	93,020

Reference: U.S. Census Bureau, 2010

Racial distribution in the town of Līhu‘e is quite different than the rest of Kaua‘i County. White persons in the town of Līhu‘e account for 22.2% of the total population versus 33.5% for Kaua‘i County. Asian population is 44.4% in Līhu‘e and 31.8% in the county. Native Hawaiians account for 7.0% in Līhu‘e and 9.2% in the county. Persons of two or more races in Līhu‘e are 24.8% and 24.5% in the county.

Kaua‘i County residents over the age of 65 accounted for 10,512 residents, while 20,440 were between the ages of 45 to 64. The project housing development is designed for elderly persons. Pursuant to Public Law 104-76-December 28, 1995 and amendments to Section 807(b)(2)(C) of the Fair Housing Act, this project would allow for sole occupancy by persons who are 55 and older or at least one person who is older than 55 in at least 80% of the occupied units. This adheres to HUD policies, which can legally exclude children (Table 3-4).

Table 3-4: Age Groups

Age Group	Kaua'i County
Total Persons	**67,701**
Under 5	4,349
5 to 13	7,427
14 to 17	3,403
18 to 24	4,985
16 years and over	54,310
18 years and over	52,522
15 to 44	24,132
25 to 44	16,585
45 to 64	20,440
65 years and over	10,512
85 years and over	1,713

Reference: U.S. Census Bureau, 2010

The County of Kaua'i General Plan projected a need for an additional 17,900 housing units to accommodate 74,300 residents (Table 3-5). The proposed housing projects would include 60 units constructed during the first phase of the project, which include mostly one-bedroom, one-bath units with some two-bedroom, one-bath units. The second phase of the project includes an additional 24 housing units. The total housing units may accommodate 80 to 100 senior residents.

Table 3-5: Housing Units Projection

2020 Projections, Resident Population and Housing Units			
	Actual 1997	**Range of 2020 Projection in Resident Population**	**Range of Increase of Housing Units 1997-2020**
Resident Population	56,240	65,300-74,300	8,900-17,900
Single Family Units	16,310	18,600-21,200	2,300-4,900
Multi-Family Units	1,600	1,800-2,100	200-500
Total Housing Units	**17,910**	**20,400-23,300**	**2,500-5,400**

Reference: The County of Kaua'i General Plan, November 2000

Potential Impacts and Mitigation

No Action Alternative

Significant adverse impacts may result with the No Action Alternative. The affordable housing project is expected to provide an increased quality of life to senior residents that qualify for the HUD program. Without this project, seniors may not be provided with necessary affordable housing. Mitigation of these potential impacts includes providing affordable housing to senior residents. The population will continue to grow and the housing availability to senior residents will remain unchanged in the town of Līhu'e under the No Action Alternative.

Preferred Alternative

The Preferred Alternative would beneficially impact the project area. New affordable housing would be provided to senior residents. The town of Līhu'e may experience a minor increase in population resulting from the housing development. This change will assist in accommodating for the increasing population

of elderly persons in the town of Līhuʻe and/or the County of Kauaʻi. The current living situation of the future residents of the housing development would be improved with the new housing. The impacts to the social and community identity of Līhuʻe and the County of Kauaʻi is expected to be beneficial. The residences, businesses, community facilities, or other activities would be beneficially impacted as a result of the proposed project. The proposed project would offer an easier way of life for senior residents and potentially offer more business to the surrounding area. No adverse impacts are anticipated and no mitigation is required.

3.2.7 Economic Considerations

Existing Conditions

The median annual income for Līhuʻe from 2006 through 2010 for all households in the project area was $63,690, and most families have one worker (U.S. Census Bureau, 2010). This is slightly higher than the county's median annual income of $62,531. The target population is at or below 60% of the area median household income.

The affordable housing project would temporarily offer construction jobs to the community for the duration of the project. Job growth in the health care industry may potentially increase in the neighborhood with the addition of nearly 100 senior residents.

Potential Impacts and Mitigation

<u>No Action Alternative</u>

No significant impacts are expected to result from the No Action Alternative. No change to existing conditions is expected.

<u>Preferred Alternative</u>

Short-term beneficial impacts resulting from the proposed project include temporary construction jobs during the construction phase of the project. No significant impacts would result from the Preferred Alternative.

3.2.8 Public and Recreational Facilities

Existing Conditions

The Līhuʻe police district headquarters is located at 3990 Kaana Street #200 in the town of Līhuʻe and approximately one mile from the project area. The police station staff includes one district commander, three sergeants, one lieutenant, and 21 police officers. The traffic safety unit is also located in this building and includes one lieutenant, one sergeant, and five traffic enforcement officers.

The nearest fire station is located at 4223 Rice Street and across Mālama Street from the project area.

Wilcox Memorial Hospital is located at 3-3420 Kuhio Highway in Līhuʻe, approximately 1.4 mi from the project area. Other health care services within the surrounding areas include elderly home care and medical equipment services. The nearest elderly health care facility is approximately two blocks from the project area and offers private nursing and home care services for the elderly. Approximately five other home care services are provided in the surrounding area of the project site.

The Department of Parks and Recreation is located at 4444 Rice Street in Līhuʻe. The department offers senior programs at the neighborhood centers. The nearest neighborhood center is located at 3353 Eono Street in Līhuʻe and operates from 7:45 a.m. until 4:30 p.m. during the weekdays and is closed on weekends and holidays. Līhuʻe Park is located less than a half mile from the project area. The park provides outdoor tennis courts, baseball diamonds, and a basketball court.

Potential Impacts and Mitigation

No Action Alternative

No significant impacts would result from this alternative. No change to existing conditions is expected to occur from the No Action Alternative.

Preferred Alternative

The Preferred Alternative is not anticipated to have any significant impacts to the public facilities provided in the project area because existing facilities and services are expected to have the capacity to accommodate the residents of this housing project.

3.2.9 Visual and Aesthetic Resources

Existing Conditions

The project area is located in the urban zone in the town of Līhuʻe. The project area is currently vacant land and also used as a baseyard for parking emergency fire vehicles. TMK Parcel (4)3-6-004:009 is zoned as residential and is fenced with two gates for access from Hoala and Kalena Streets. The parcel is located adjacent to Nāwiliwili Stream and is bordered with dense vegetation including grasses, shrubs, and trees. The neighboring properties are residential and commercial. TMK Parcel (4)3-6-009:001 is a grassy field used as a baseyard. The properties surrounding this parcel are residential and commercial. The fire station is located across Mālama Street from the parcel. The surrounding views include commercial and residential buildings. Nāwiliwili Stream could potentially be seen on the southern boundary of TMK Parcel (4)3-6-004:009. The distant view to the south of the project area shows Hāʻupu summit and range.

Potential Impacts and Mitigation

No Action Alternative

No impact on the visual resources and aesthetics in or around the project area is anticipated with the No Action Alternative, as no change to the current conditions is expected.

Preferred Alternative

Long-term potential beneficial impacts to the visual and aesthetics resources may result from the Preferred Alternative. The new housing development will increase the aesthetics of the neighborhood with the new structures. Overall, the neighborhood would display more appeal to the community and visitors as a result of a new housing development. Short-term adverse impacts due to construction would result from the Preferred Alternative. Mitigation measures may include an organized and clean construction site as a result of BMPs. Because these are temporary short-term impacts that shall be mitigated appropriately, no significant adverse impacts to visual and aesthetic resources are expected to result from this alternative. Additionally, the current scenic views are not likely to be adversely impacted due to the proposed project.

3.2.10 Infrastructure Systems and Utilities

Existing Conditions

Sewer, water, electrical, and phone lines were identified in a survey conducted on August 28 through 31, and October 1, 2012 for Kauaʻi County Housing Agency. As these parcels are vacant lots, utilities would need to be expanded to accommodate the affordable housing development and service the senior residents. This survey identified several water meters, fire hydrants, electric boxes, and power poles in the right-of-way surrounding the site. This indicates that utilities are located adjacent to the project properties and potentially available for expansion.

The water supply system for Līhuʻe, named Puhi-Līhuʻe-Hanamaulu, consists of four major mainlines: the old 15-in concrete Kokolau Tunnel main, the 16-in Puhi Wells mainline, the 18-in Kilohana Wells mainline, and the newly installed 16-in Maʻalu Road mainline. Trunk lines consist of 8-, 12- and 16-in pipes along Kaumualii Highway, Rice Street, Nāwiliwili Road, Kuhio Highway, Ahukini Road and Kapule Highway (County of Kauaʻi, 2001). "The existing mainlines are adequate to handle the peak hour demands over the 20 year planning period. However, distribution capacity was not adequate for required fire flow demand in the commercial, school, and older residential areas of Līhuʻe and Hanamaulu. The oldest pipelines were installed in Līhuʻe and Hanamaulu between 1926 and 1935. Major proposed pipeline improvements include a 16-in replacement of the 14,600 ft-long Kokolau Tunnel mainline, 8-in upgrade pipeline segments in the older Līhuʻe and Hanamaulu residential areas, a 12-in mainline along Kuhio Highway in Hanamaulu and an 8-in mainline segments in the older commercial areas of Līhuʻe," (County of Kauaʻi, 2001). Capital improvements to the Puhi-Līhuʻe-Hanamaulu water system included 33 projects for a total cost of $24 million (County of Kauaʻi, 2001).

A response letter dated March 6, 2013 was received from the County of Kauaʻi DOW. This letter indicates that the existing storage and transmission facilities are adequate for the project. However, the existing source is not adequate for the proposed project. DOW requested Kauaʻi County Housing Agency to submit a formal request for water service indicating the proposed water meter use, detailed water demand calculations, along with the proposed water meter size, to the DOW for review and approval. DOW conditions for approval may change based on the approved water demands and use. The Kauaʻi County Housing Agency shall prepare and receive DOW's approval of construction drawings for the necessary water system facilities and construct said facilities. These facilities shall include, but not be limited to: a) the domestic service connection; b) the fire service connection; c) the interior plumbing plans with the appropriate backflow prevention device for proposed and existing water meter(s); and d) additional source facilities. In a response letter dated March 28, 2013, Bow Engineering and Development, Inc. indicated the replacement of several meters and fire hydrants to meet the potable water demand equivalent to the current water allotment. Because the current water allotment was not adequate for 84 housing units, the project was separated into two phases. The first phase of the project is the development of 60 housing units, which would be accommodated by the current water allotment at the site. Upgrades to the current water system and the current water allotment would be completed during the construction of the additional 24 housing units during the second phase of the project. Consultation with DOW and the Kauaʻi Fire Department is currently taking place for the approval of the meter replacements (BOW, 2013).

The Kauaʻi County Housing Agency is also responsible for the Federal Reserve Charge (FRC) based on $4,600 per 5/8-in water meter/unit or the FRC based on the approved water meter size, whichever amount is greater. The Kauaʻi County Housing Agency is also responsible for receiving a certification of completion notice for the construction of the necessary system facilities from the DOW.

Kauaʻi Island Utility Cooperative (KIUC) is expected to supply the necessary power to the housing development. The proposed project will increase the electrical load demand of the local substation. The proposed development may require an electrical line extension and other upgrades to service the proposed development. However, these effects are expected to be insignificant as a result of the proposed project. Any electrical issues shall be resolved prior to development through accommodations arranged through the KIUC. Once the electrical improvements are conducted, the energy supply should meet the demand of the project site with respect to the surrounding area.

A response letter from the DOPW dated April 24, 2013 stated "there is an existing unlined drainage tunnel that traverses through the property from Rice Street, Mālama Street, and Hoala Street. The drainage tunnel outlets the vicinity of the old railroad track on TMK: 3-6-004-009. The drainage tunnel is identified on TMK: 3-6-009-001 as Drainage Easement "I". This drainage tunnel has been used to discharge the storm flows along the upper reaches of Rice Street below Waʻa Road. A geotechnical engineer needs to be retained to provide recommendations on the condition of the tunnel and

recommendations for building in close proximity of the earthen tunnel. We do not recommend buildings, driveways, or parking lot construction over any portion of the tunnel," (DOPW, 2013).

No Action Alternative

The No Action Alternative would not have any significant impact to utilities and infrastructure. No change to the existing conditions is expected for the No Action Alternative.

Preferred Alternative

The Preferred Alternative is expected to have potential beneficial impacts on the infrastructure and utilities in or around the project area. Additional utility lines will provide new infrastructure to comply with the County of Kaua'i's Water Plan for 2020. Residents will have new infrastructure and utilities, which is likely an upgrade of their current systems. The current water supply is expected to facilitate the population growth estimates for the town of Līhu'e through the year 2020. The Kaua'i County Housing Agency must coordinate with DOW to implement the requirements for developing source water to meet the resident's needs. The Kaua'i County Housing Agency will prepare and receive approval from the DOW of all construction plans for the necessary water system facilities. The additional 24 housing units proposed for the second phase of the project would include upgrading the current water system and water allotment to facilitate additional residents.

SECTION 4 RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS

The purpose of this section is to summarize the relationship of the plans and policies to project actions. Additionally, the intent is to revisit these plans and policies to qualify any significant effects from actions proposed in this EA.

4.1 **Federal Regulations**

National Environmental Policy Act

24 CFR Part 58 Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities

Sec. 58.1 Purpose and applicability.

Purpose. This part provides instructions and guidance to recipients of HUD assistance and other responsible entities for conducting an environmental review for a particular project or activity and for obtaining approval of a Request for Release of Funds.

Applicability. This part applies to activities and projects where specific statutory authority exists for recipients or other responsible entities to assume environmental responsibilities. Programs and activities subject to this part include:

> *(4) The HOME Investment Partnerships Program authorized by Title II of the Cranston-Gonzalez National Affordable Housing Act (NAHA), in accordance with section 288 (42 U.S.C. 12838).*

Discussion:

The U.S. HUD has allocated HOME funds to the County of Kaua‘i for the fiscal year 2013. The purpose of this EA and ERR is to provide an environmental review of the planned project for compliance with the requirements for 24 CFR Part 58. In addition, this environmental review will also serve the purpose for obtaining approval of a Request for the Release of Funds to complete the proposed project. The County of Kaua‘i is the responsible entity to assume environmental responsibility for the activities proposed for the senior housing development project.

Sec. 58.5 Related Federal Laws and Authorities.

In accordance with the provisions of law cited in Sec. 58.1(b), the responsible entity must assume responsibilities for environmental review, decision-making and action that would apply to HUD under the following specified laws and authorities. The responsible entity must certify that it has complied with the requirements that would apply to HUD under these laws and authorities and must consider the criteria, standards, policies and regulations of these laws and authorities.

> *Historic properties.*
>
> *(1) The NHPA of 1966 (16 U.S.C. 470 et seq.), particularly sections 106 and 110 (16 U.S.C. 470 and 470h-2).*
>
> *(2) Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 13, 1971 (36 FR 8921), 3 CFR 1971-1975 Comp., p. 559, particularly section 2(c).*
>
> *(3) Federal historic preservation regulations as follows:*
>
> > *(i) 36 CFR Part 800 with respect to HUD programs other than Urban Development Action Grants (UDAG); and (ii) 36 CFR part 801 with respect to UDAG.*
>
> *(4) The Reservoir Salvage Act of 1960 as amended by the Archaeological and Historic Preservation Act of 1974 (16U.S.C. 469 et seq.), particularly section 3 (16 U.S.C. 469a-1).*

Discussion:

Archaeological and cultural assessments have been performed to assess the project site for historic significance. The results are summarized in the content of this EA and ERR. These assessments also comply with HRS Chapter 6E as documented in the content of this EA and ERR. The results of both assessments indicate that the proposed project will not significantly effect the archaeological and cultural resources identified at the site (Section 3.2.2)

(b) Floodplain management and wetland protection.

(1) Executive Order 11988, Floodplain Management, May 24, 1977 (42 FR 26951), 3 CFR, 1977 Comp., p. 117, as interpreted in HUD regulations at 24 CFR part 55, particularly section 2(a) of the order (For an explanation of the relationship between the decision-making process in 24 CFR part 55 and this part, see Sec. 55.10 of this subtitle A.)

(2) Executive Order 11990, Protection of Wetlands, May 24, 1977 (42 FR 26961), 3 CFR, 1977 Comp., p. 121, particularly sections 2 and 5.

Discussion:

The floodplain management area is illustrated in Figure 3-2. The project site is located outside of both the 100 year floodplain and the 500 year floodplain. The mouth of Nāwiliwili Stream, extending to more than one mile upstream, is considered a wetland. This area overlaps with the floodplain extending to Nāwiliwili Bay. The project area is located outside of the designated wetland area. The proposed activities for the project will not impact the wetlands or floodplain areas as construction BMPs will be used. The floodplain is not expected to impact the proposed project as the flood plain is located outside of the project area.

(c) CZM. The CZM Act of 1972 (16 U.S.C. 1451 et seq.), as amended, particularly section 307(c) and (d) (16 U.S.C. 1456(c) and (d)).

Discussion:

All lands in the State of Hawaiʻi excluding lands designated "state forest reserves" are within the CZM Area. The proposed project is not anticipated to have an adverse impact on the coastal zone. Additionally, the proposed project is exempt from CZM guidelines (Section 4.2 Coastal Zone Management Area).

(d) Sole source aquifers.

(1) The SDWA of 1974 (42 U.S.C. 201, 300(f) et seq., and 21 U.S.C. 349) as amended; particularly section 1424(e)(42 U.S.C. 300h-3(e)).

(2) Sole Source Aquifers (Environmental Protection Agency-40 CFR Part 149).

Discussion:

Based on the EPA sole source aquifer designation, the Island of Kauaʻi does not have any sole source aquifers and is not considered a sole source aquifer (EPA, 2013). The proposed project may potentially impact the water supply for the town of Līhuʻe. These potential impacts are considered to be insignificant as the potential increase of residents to the project area is approximately 80 to 100 senior residents. The potential increase of population has been identified and addressed in the County of Kauaʻi Department of Water Plan 2020. The availability of water should not be impacted or have adverse impacts to the town of Līhuʻe or the county. Therefore, no significant impacts to the drinking water sources are expected from the proposed project.

(e) Endangered species. The Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) as amended, particularly section 7 (16 U.S.C. 1536).

Discussion:

Endangered species or candidate endangered species have not been identified in the project area. A response letter from USFWS dated March 7, 2013 indicated that the project is not located near a wilderness area, a wildlife preserve, or a National Wildlife Refuge. There is no proposed or designated critical habitat in the vicinity of the project site. Three seabird species, the Federally endangered Hawaiian petrel (*Pterodroma sandwichensis*), threatened Newell's shearwater (*Puffinus auricularis newelli*), and a candidate for listing, the band-rumped storm petrel (*Oceanodroma castro*) (collectively referred to as Hawaiian seabirds), are known to fly over the project area while traveling from the sea to their breeding sites. Additionally, the Federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) may forage or roost in the vicinity of the proposed housing development. The USFWS recommends only using essential lights, fully shielding all lights, and avoiding nighttime construction that requires lighting to avoid and minimize potential impacts to seabirds. Additionally, woody plants greater than 15 ft (4.6 m) tall should not be removed or trimmed from June 1 through September 15 due to the potential of harming or killing young bats that are nursing in the shrubs and trees (Appendix A-2).

(f) Wild and scenic rivers. The Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.) as amended, particularly section 7(b) and (c) (16 U.S.C. 1278(b) and (c)).

Discussion:

Currently, there are no wild and scenic rivers in the State of Hawai‘i. There are no anticipated compliance requirements under the Wild and Scenic Rivers Act for the proposed housing development.

(g) Air quality.

(1) The Clean Air Act (42 U.S.C. 7401 et. seq.) as amended; particularly section 176(c) and (d) (42 U.S.C. 7506(c) and (d)).

Discussion:

The County of Kaua‘i does not have an EPA-funded air monitoring station. However, a temporary air monitoring station was installed near Nāwiliwili Bay to track emissions from cruise ships as a special temporary project. DOH records and reports this data on their air quality website. Results of the air monitoring indicate that air quality data has remained below NAAQS since the system was installed a couple of years ago (DOH, 2013a).

The nearest EPA air monitoring station is located on the Island of O‘ahu. The State of Hawai‘i Annual Summary 2010 Air Quality Data results indicated that the air quality monitoring at all monitored stations remained below the State and Federal NAAQS except during the New Year's fireworks in December and January, and also during a brush fire near an air monitoring station on the Island of Hawai‘i.

The proposed housing development activities may produce temporary air quality impacts including fugitive dust and emissions from construction vehicles and activities. Measures to control and prevent the spread of air pollutants may be implemented during construction. These measures will reduce the short-term air quality impacts to less than significant. Long-term impacts to air quality are anticipated to be less than significant.

(2) Determining Conformity of Federal Actions to State or Federal Implementation Plans (Environmental Protection Agency-- 40 CFR parts 6, 51, and 93).

(h) Farmlands protection.

(1) Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.) particularly sections 1540(b) and 1541 (7 U.S.C. 4201(b) and 4202).

(2) Farmland Protection Policy (Department of Agriculture-7 CFR Part 658).

Discussion:

The project site is not located within any designated ALISH (Figure 3-7). A request for comments regarding compliance with the Farmland Protection Policy Act was made to the NRCS in a letter dated March 22, 2013. Because the project is not classified as any ALISH, no significant impacts and no compliance issues are expected from the proposed housing development.

(i) HUD environmental standards.

(1) Applicable criteria and standards specified in part 51 of this title, other than the runway clear zone notification requirement in Sec. 51.303(a)(3).

(2)(i) Also, it is HUD policy that all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property. (ii) The environmental review of multifamily housing with five or more dwelling units (including leasing), or non-residential property, must include the evaluation of previous uses of the site or other evidence of contamination on or near the site, to ensure that the occupants of proposed sites are not adversely affected by any of the hazards listed in paragraph (i)(2)(i) of this section. (iii) Particular attention should be given to any proposed site on or in the general proximity of such areas as dumps, landfills, industrial sites, or other locations that contain, or may have contained, hazardous wastes. (iv) The responsible entity shall use current techniques by qualified professionals to undertake investigations determined necessary.

Discussion:

The HUD Environmental Standards Determination and Compliance Documentation includes the following: Noise Abatement and Control [24 CFR 51 B]; Toxic/Hazardous/Radioactive Materials, Contamination, Chemicals or Gases [24 CFR 58.5(i)(2)]; Siting of HUD-Assisted Projects near Hazardous Operations [24 CFR 51 C]; and Airport Clear Zones and Accident Potential Zones [24 CFR 51D].

(j) Environmental justice. Executive Order 12898-Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994 (59 FR 7629), 3 CFR, 1994 Comp. p. 859.

Discussion:

The project will provide housing to low-income senior residents. This housing development complies with Executive Order 12898 and ensures environmental justice for all members of the community including minority and low-income populations.

Noise Abatement and Control [24 CFR 51 B]

The project is expected to temporarily exceed the acceptable limits of 65 dBA based on the averaged noise levels of construction of 70-100 dBA. Mitigation measures to reduce the noise impacts during construction should be implemented; these measures may include noise barriers and mufflers. The proposed project may be an exception to the acceptable standard of 65 dBA because it "meets other program goals to provide housing in proximity to employment, public facilities and transportation," [CFR Part 51 Section 105]. In this case, the noise levels may be shifted to 70 dBA. However, based on the Noise Reference Manual, Kaua‘i Edition of February 2008, an approved Community Noise Permit may be required for construction projects exceeding 78 dBA or has a total cost of more than $250,000 (based on the value of the building permit). The Kaua‘i County Housing Agency should consult with the DOH for appropriate noise permit requirements for this project. A noise permit may need to be issued by the DOH to allow construction operations. Within mitigation measures in place and acceptance of elevated standards through HUD, adverse impacts to noise would be reduced to less than significant. Long-term

noise impacts may result from increased vehicular traffic in the vicinity of the project. However, any potential noise level increases are expected to be less than significant.

Toxic/Hazardous/Radioactive Materials, Contamination, Chemicals or Gases [24 CFR 58.5(i)(2)]

The project area has never been developed and no known hazardous substances are believed to exist on the property (Appendix B). Requests for records from the DOH was submitted and the DOH response indicated that no records exist for the two parcels. The proposed housing development is not anticipated to be affected by toxic, hazardous, radioactive materials, chemicals, gases or any other form of contamination. Construction activities would require implementation of County of Kaua‘i BMPs. Mitigation measures to reduce potential impacts from use of petroleum-operated vehicles and equipment would be implemented to reduce any potential impacts to insignificant.

Siting of HUD-Assisted Projects near Hazardous Operations [24 CFR 51 C]

The surrounding land uses include residential and commercial. Apartment complexes, homes, and vacant lots are located around the project area. A hardware store and electronics store is located in the vicinity of the project area. A few baseyards for housing trucks and materials are located within the vicinity of the project area. Operations associated with the hardware and electronics store could potentially have hazardous materials; however, operations associated with these materials is not likely. It is unknown if hazardous materials are potentially stored at the baseyards.

Airport Clear Zones and Accident Potential Zones [24 CFR 51 D]

The project area is located approximately 3,600 ft from the edge of the Līhu‘e airport property boundary, which is outside of the potential airport clear zone or accident potential zone of 2,500 ft. The project is located within 15 mi of Līhu‘e Airport, which is regulated by the Federal Aviation Agency (FAA) (Figure 4-1).

4.2 State Land Use Plans and Policies

State of Hawai‘i

Chapter 343 HRS

Compliance with Chapter 343, HRS is required as previously described in Section 2.1 Scope and Authority.

§343-5 Applicability and Requirements. *(a) Except as otherwise provided, an environmental assessment shall be required for actions that:*

Propose the use of the state or county lands or the use of state or county funds, other than funds to be used for feasibility or planning studies for possible future programs or projects that the agency has not approved, adopted, or funded, or funds to be used for the acquisition of unimproved real property; provided that the agency shall consider environmental factors and available alternatives in its feasibility or planning studies; provided further that an environmental assessment for proposed uses under section [205-2(d)(10)] or [205-4.5(a)(13)] shall only be required pursuant to section 205-5(b).

Discussion:

The Kaua‘i County Housing Agency is titled to the land within the project area; therefore, the environmental assessment under Chapter 343 HRS is required because the project entails the use of County lands. The AIS for the project site addresses Chapter 343 Section 6E as part of the State of Hawai‘i Environmental Policy Act. Cultural resources have also been addressed within this document and in accordance with OEQC’s guidelines for “Assessing Cultural Impacts,” and may serve to support the historic preservation review under HRS Chapter 6E-8 and HAR Chapter 13275.

State Land Use Law Chapter 205, HRS

Chapter 205, HRS promulgates the State Land Use Law. This law is intended to preserve, protect, and encourage the development of lands in the State of Hawai‘i for uses that are best suited to the public health and welfare of its people. The LUC classifies all land into four districts: Urban, Conservation, Agriculture, and Rural. Most of the project area is situated within the State’s Urban Land Use District.

NHPA Section 106 [36 CFR PART 800] – Protection of Historic Properties

Compliance with NHPA Section 106 is required as the use of Federal funds is planned for the proposed action.

> *(a) Establish undertaking. The agency official shall determine whether the proposed Federal action is an undertaking as defined in § 800.16(y) and, if so, whether it is a type of activity that has the potential to cause effects on historic properties*
>
> *(1) No potential to cause effects. If the undertaking is a type of activity that does not have the potential to cause effects on historic properties, assuming such historic properties were present, the agency official has no further obligations under section 106 or this part.*

Discussion:

The proposed project does not involve the use of historic properties. A burial site is located at the project site and is protected. Although the project will require an undertaking, the project site is not a registered historic site. The proposed action will be initiated using HUD funds and therefore a discussion of Section 106 is included within this EA. Section 106 consultation letters were sent to native Hawaiian organizations as part of the Section 106 consultation (Appendix F). A community meeting was held as part of the Section 106 consultation process on April 4th, 2013. The project is not expected to result in adverse impacts on known existing historic or cultural resources on the project site. A mitigation measure that will protect and preserve the burial is the installation of a fence around the perimeter of the burial. Additionally, the burial site is protected under law and authority of Chapter 6E.

Act 50 State Legislature of Hawai‘i 2000 (SLH 2000)

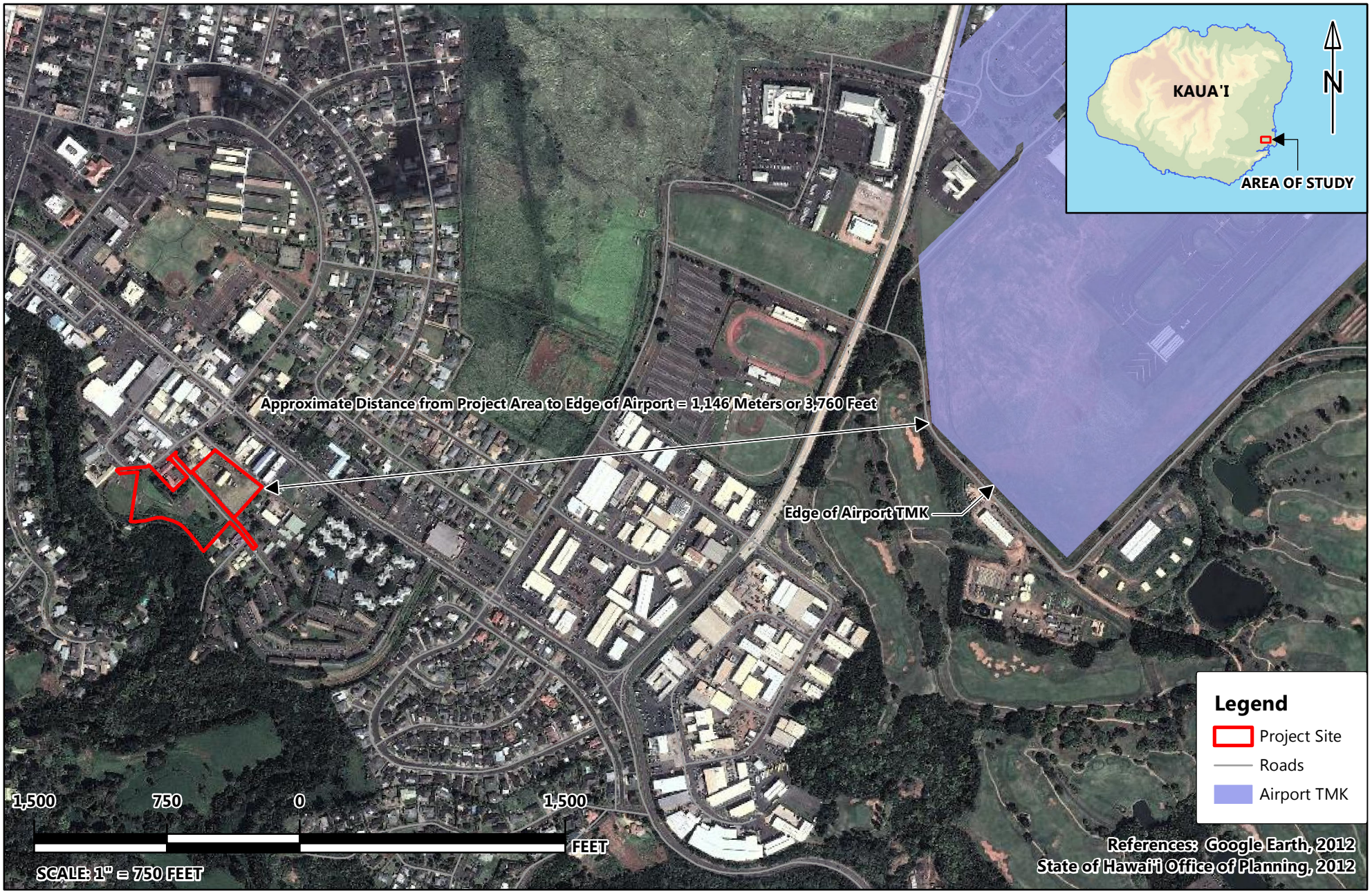
This Act amends the environmental impact statement law by amending the definition of "environmental impact statement" or "statement" to include effects on the cultural practices of the community and State. Also amends the definition of "significant effect" to include adverse effects on cultural practices (State of Hawai‘i, 2013).

Discussion:

The CIA was conducted pursuant to Act 50 SLH 2000. The EA conforms to Act 50 as the exercise of native Hawaiian rights, or any ethnic group, related to gathering, access, or other customary activities will not be affected by the Proposed Action – Preferred Alternative.

Hawai‘i State Plan Chapter 226, HRS

The Hawai‘i State Plan, Chapter 226, HRS was developed as a guideline for the future growth of the State of Hawai‘i. The State Plan identifies goals, objectives, policies, and priorities for the development and growth of the State. It provides a basis for prioritizing and allocating the limited resources such as public funds, services, human resources, land, energy, and water. The State Plan establishes a system for the formulation and program coordination of State and County plans, policies, programs, projects, and regulatory activities. The State Plan also facilitates the integration of all major State and County activities. The proposed project would be in conformance with the State Plan’s objectives and policies for socio-cultural advancement of the Hawaiian people. The proposed project will provide much needed housing for the senior residents on Kaua‘i.



Environet, Inc.

KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT

AIRPORT LOCATION MAP
KAUA'I, HAWAI'I

FIGURE 4-1

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State Functional Plan

The 12 State Functional Plans were adopted by the State Legislature in April 1984. These plans were formulated to specify in greater detail the policies, guidelines, and priorities set forth in the Hawai‘i State Plan. The 12 functional plans include; Energy, Transportation, Water Resources, Historic Preservation, Health, Education, Housing, Conservation Lands, Higher Education, Agriculture, Recreation, and Tourism. The project is consistent with the policies and objectives of the State Functional Plans. This project provides the needed housing and infrastructure requirements for the senior residents on Kaua‘i.

State of Hawai‘i Land Use Law

Chapter 205, HRS promulgates the State Land Use Law. This law is intended to preserve, protect, and encourage the development of lands in the State of Hawai‘i for uses that are best suited to the public health and welfare of its people. The LUC classifies all land into four districts: Urban, Conservation, Agriculture, and Rural. The project area is designated within the Urban District.

Coastal Zone Management (CZM) Program

The CZM Program is promulgated by Chapter 205A, HRS. The objectives and policies of the program are administered by the Office of State Planning. Through the CZM Program, each County was required to establish Special Management Areas (SMAs) and shoreline setbacks within which permits are required for development. In a letter dated June 24, 2004 to HUD, the State of Hawai‘i Office of Planning declared that they “no longer review any HUD assistance programs, including Community Development Block Grants, and housing programs such as the Public Housing Capital Fund. Other CZM regulations such as the SMA and Shoreline Setback provisions, which are administered by the Counties, are still valid and may apply to HUD-assisted projects. Each County Planning Department should be consulted for the applicability of SMA and Shoreline Setback requirements,” (Appendix G).

Although exempt from CZM guidelines, the proposed project is consistent with the policies and objectives of the CZM Program, from continued support of recreational opportunities and economic uses; to protecting, preserving, and restoring historic resources, scenic and open space resources, coastal ecosystems, beaches, and marine resources; reducing coastal hazards; and managing development. The project environmental assessment process provided for community consultation throughout the pre-assessment and Draft EA public review periods, thereby supporting the CZM program policies of stimulating public participation, and adherence to the practice of unhindered project review.

4.3 **County Land Use Plans and Policies**

County of Kaua‘i General Plan (Approved November 30, 2000)

The General Plan for the County of Kaua‘i is “intended to improve the physical environment of the County and the health, safety, and general welfare of Kaua‘i’s people,” (County of Kaua‘i , 2013c). The General Plan is a direction-setting, policy document. It is not intended to be regulatory. It is intended to be a guide for future amendments to land regulations and to be considered in reviewing specific zoning amendments and development applications. The project design and development will comply with the County of Kaua‘i General Plan.

4.3.1 Section 8 Improving Housing, Parks and Schools

The County of Kaua‘i’s General Plan addresses elderly housing needs. The General Plan indicates the growing elderly population is projected to have a resident population between 65,300 and 74,300 in 2020. The projected need of housing units is 20,400 to 23,300.

4.4 **Other Relevant Plans and Policies**

Līhu‘e Town Core Urban Design Plan (March 2010)

The purpose of this plan is to implement the intent and purpose of elements within the Kaua‘i General Plan Update 2000 regarding the Līhu’e Town Core area, and the Līhu‘e Town Core Urban Design Plan of 2009. It is intended to provide more up-to-date design standards from those enumerated in the Līhu‘e Development Plan 1976 in recognition of more detailed planning goals and objectives for the Līhu‘e Town Core area. The plan also establishes special planning areas, land uses, development standards, and design guidelines to guide and regulate future development. Under Kaua‘i County Code Section 8-9.6, “special planning areas” are protected based on certain physical characteristics found to be of particular public value. The plan also provides regulations of land use and development practices within the Līhu’e Town Core area. The project design and development should comply with the Līhu‘e Town Core Urban Design Plan guidelines.

4.5 **Necessary Permits and Approvals**

During the implementation phase of the project, the Kaua‘i County Housing Agency will ensure the developer will work with State and County agencies for the approval of project plans and specifications. Construction permits will have to be obtained through the County of Kaua‘i. Work completed in the right-of-way (ROW) will require a permit through the State of Hawai‘i Department of Transportation (DOT) Highways Division. An NPDES permit will be obtained through the DOH. The following is a summary of the potential permits required for the project:

<u>State</u>

- NPDES Permit;
- ROW permit (DOT Highways) (if work is expected to be completed in state ROW); and
- Noise permit (if contractor will generate noise levels exceeding DOH guidelines) (Section 3.1.10).

<u>County</u>

- Use Permit;
- Building Permit;
- Grading permit may be required for the disposal site receiving excess wasted excavated material or for the borrow site. Disposal site and borrow site shall comply with Ordinance No. 808: County’s Sediment and Erosion Control Ordinance;
- Driveway Approach Permit for a driveway connection with Mālama Street; and
- Road Permit for work within County ROWs.

SECTION 5 FINDINGS AND DETERMINATIONS

In accordance with the provisions set forth in Chapter 343, HRS, this EA has determined that the project will not have significant adverse impacts on the environment. As such, a FONSI is being issued for the Proposed Action. Anticipated impacts will be temporary and will not adversely impact the environmental quality of the area. Therefore, an EIS is not required.

A review of the "Significance Criteria" used as a basis for the above determination is presented below. An action is determined to have a significant impact on the environment if it meets any one of the thirteen (13) criteria.

Involves an irrevocable commitment to loss or destruction of any natural or cultural resources.

The Preferred Alternative would not provide irrevocable commitment to loss or the destruction of any natural or cultural resources.

Curtails the range of beneficial uses of the environment.

The Preferred Alternative would not curtail the range of beneficial uses of the environment. The project site is currently undeveloped. Many of the surrounding areas are maintained as residences, businesses, and public facilities.

Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 343, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;

The Preferred Alternative would be in conformance with the Chapter 343 HRS State Environmental Policy, to enhance the quality of life.

Substantially affects the economic or social welfare of the community or State;

The Preferred Alternative would have a beneficial effect on the economic and social welfare of the community or the State. The proposed housing development would provide needed housing to senior residents and open up job opportunities to members of the community providing a long-term benefit to the economy and an improvement on social welfare.

Substantially affects public health;

The Preferred Alternative would have no significant effects on public health.

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

The Preferred Alternative would likely not result in substantial secondary impacts, such as population changes or effects on public facilities.

Involves a substantial degradation of environmental quality;

The Preferred Alternative would not likely result in a substantial degradation of environmental quality. The construction activities will be implemented using BMPs.

Is individually limited, but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;

The Preferred Alternative is not anticipated to result in cumulative effects; therefore, it would not involve a commitment to larger actions. Future development of the additional 24 units would include an upgrade of the water system and potentially effect the water supply in Līhuʻe. The available water supply would be upgraded to accommodate the additional residences.

Substantially affects a rare, threatened, or endangered species or its habitat;

The Preferred Alternative is not anticipated to have substantial effects on a rare, threatened, or endangered species, or any critical habitat. No known critical habitat or known endangered species habitat exists at the project site. Measures to mitigate any potential of harming or killing any native Hawaiian species will be used during construction of the project.

Detrimentally affects air or water quality or ambient noise levels;

No significant impacts on the area's long-term air or water quality or ambient noise levels are anticipated to result from the Preferred Alternative. Construction noise that exceeds DOH guidelines should be mitigated to reduce the potential of noise level exceedances. Additionally, water quality impacts should be mitigated with County of Kauaʻi BMPs sediment control measures. Dust abatement measures should be used to reduce potential of impact to air quality. With these measures in place, the project would not detrimentally affect the air, water, or noise quality.

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

The Preferred Alternative would not effect environmentally sensitive areas, such as a floodplain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters. The project would not be effected by these natural hazards as these areas are located outside of the project site.

Substantially affects scenic vistas and view planes identified in County or State plans or studies; or

The Preferred Alternative would not adversely affect the visual aesthetics of the areas identified in the County or State plans and studies.

Requires substantial energy consumption.

The Preferred Alternative would not require substantial energy consumption relative to other similar projects.

SECTION 6 REFERENCES

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SECTION 7 AGENCIES AND ORGANIZATIONS CONSULTED

	Consulted Agency or Group	Pre-Assessment Responses Received	DEA Public Review Response Received
Federal Agencies	Department of Commerce National Marine Fisheries Service		
	U.S. Army Corps of Engineers Honolulu District	✓	✓
	U.S. EPA Region 9		
	U.S. Fish and Wildlife Service	✓	
	U.S. Geological Survey, Pacific Islands Water Science Center	✓	✓
	U.S. National Park Service		
	U.S. National Park Service		
	USDA Natural Resources Conservation Service-Honolulu		
	USDA Natural Resources Conservation Service-Kauai		
State Agencies	Department of Accounting and General Services	✓	✓
	Department of Business, Economic Development & Tourism		
	Department of DBEDT - Strategic Industries Division (Energy Division)		
	Department of Defense		
	Department of Education	✓	
	Department of Hawaiian Home Lands	✓	
	Department of Health	✓	✓
	Department of Human Services	✓	✓
	Department of Land & Natural Resources-Honolulu	✓	✓
	Department of Land & Natural Resources-State Historic Preservation Division		✓
	Natural Resource Conservation Service-Kauai		
	Department of Transportation		✓
	Hawaii Department of Agriculture		
	Office of Environmental Quality Control		
	Office of Hawaiian Affairs- Honolulu		
	Office of Hawaiian Affairs- Kauai		
	Public Utilities Commission		
	State Office of Planning	✓	✓
	University of Hawaii Environmental Center		
	University of Hawaii Water Resources Research Center		✓
County of Kauai	Agency of Elderly Affairs		
	Department of Planning		✓
	Department of Public Works	✓	✓
	Department of Public Works, Engineering Division		
	Department of Water		✓
	Fire Department		✓
	Kauai County Housing Agency		
	Police Department		
	Transportation Agency		
Individuals and Groups	Association of Hawaiian Civic Clubs (Kauai Civic Club)		
	Hui Kaleo'o 'Aina Ho'opulapula		
	Hui Malama Learning Center		
	Kauai Historical Preservation Commission		
	Kaua'i /In'ihou Island Burial Council		
	Kauai Historical Society		
	Kauai Island Utility Cooperative		
	Nawiliwili Watershed Council		
	Sierra Club, Hawaii Chapter		
Elected Officials	County Council Member		
	State Representative		
	State Senator		
	U.S. Representative		
	U.S. Senator		
	U.S. Senator		
Libraries	Hawaii Legislative Reference Bureau Library		
	Lihue Library		
	State Library		
	University of Hawaii Hamilton Library		
Media	Honolulu Star Advertiser		
	The Garden Island		
Utilities	Hawaiian Telcom		
	Kauai Island Utilities Cooperative		

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APPENDIX A-1

PRE-ASSESSMENT CONSULTATION LETTERS AND RESPONSES

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Environet, Inc.

February 7, 2013

Jay Furfaro (Council Chair), Nadine K. Nakamura (Council Vice Chair)
County Council of Kauai
4396 Rice Street, Suite 209
Lihue, HI, 96766

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kaua‘i County Housing Agency Affordable Housing Development,
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Līhu‘e, Kaua‘i, Hawai‘i

Dear Jay Furfaro (Council Chair), Nadine K. Nakamura (Council Vice Chair):

Environet, Inc., on behalf of Kaua‘i County Housing Agency, is in the process of preparing a Chapter 343 Hawaii Revised Statutes (HRS) Environmental Assessment (EA) and National Environmental Policy Act (NEPA), 24 Code of Federal Regulations (CFR) Part 58 Environmental Record Review (ERR) for the proposed affordable housing development at Rice Camp parcels (TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 in Līhu‘e on the Island of Kaua‘i. Please see the enclosed Location Map. This document is being prepared to evaluate and document the possible environmental, social and economic consequences associated with the project scope.

The purpose of the proposed affordable housing development is to help the County of Kauai meet its goal to provide much needed low-cost housing to its elderly residents. A total of 84 units is expected to be built on these parcels which will include one-bedroom/one-bath and two-bedroom/one-bath living units.

We are in the project scoping phase and are seeking your input in terms of issues that would identify potential environmental impacts associated with the proposed project.

In conjunction with this work, we are requesting any written comments and/or information with respect to your area(s) of concern. Please send your written comments to the following by March 8, 2013:

Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai‘i 96813

Please send a copy of your comments to:

Klayford Nakaahiki
Kaua‘i County Housing Agency
County of Kaua‘i, State of Hawai‘i
Pi‘ikoi Building, 4444 Rice Street, Suite 330
Līhu‘e, Hawaii 96766

Thank you for participating in the planning stages of this important project. If you have any questions or need clarification, please contact me at 833-2225 ext. 1004.

Sincerely,

Colette Sakoda
Senior Project Manager

Encl.: Location Map

1286 Queen Emma Street, Honolulu, Hawaii 96813 | t 808.833.2225 | f 808.833.2231 | enetmail@environetinc.com

N

Legend

Project Area

0 60 120 240 360 480 Feet

Reference: Google Maps, Retrieved February 7, 2013

Environet, Inc.	**KAUA'I COUNTY HOUSING AGENCY ENVIRONMENTAL ASSESSMENT**	**FIGURE 1**
	LOCATION MAP **KAUA'I, HAWAI'I**	

NEIL ABERCROMBIE
GOVERNOR

KATHRYN S. MATAYOSHI
SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

March 12, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: **Pre-Assessment Consultation for Kauai County Housing Agency Rice Camp Parcels, Lihue, Kauai TMK 3-6-004:009 and 3-6-009:001**

The Department of Education (DOE) has reviewed your letter of February 20, 2013 describing a proposed project for an affordable housing project in Lihue. If the proposed project is dedicated to elderly residents and if school-age children are not permitted to live in the project, DOE has no concerns. If school-age children are able to live in the project, the DOE would want to be informed so that impacts to local schools could be anticipated.

Thank you for this opportunity to offer our comments. If you have any questions, please call Heidi Meeker of the Facilities Development Branch at 377-8301.

Sincerely yours,

Duane Y. Kashiwai
Public Works Administrator

DYK:jmb

c: William Arakaki, CAS, Kauai Complex Area
Klayford Nakaahiki, Kauai County Housing Agency
Raymond L'Heureux, Assistant Superintendent, OSFSS

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 6, 2013

Environet, Inc.
Attention: Ms. Colette Sakoda
1286 Queen Emma Street
Honolulu, Hawai`i, 96813

via email: csakoda@environetinc.com

Dear Ms. Sakoda,

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua`i County Housing Agency Affordable Housing Development, Rice Camp Parcels

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

At this time, enclosed are comments from the (1) Land Division – Kaua`i District; and (2) Engineering Division on the subject matter. No other comments were received as of our suspense date. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at 587-0439. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
LAND DIVISION
2013 FEB 21 AM 10: 13
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

February 12, 2013

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Kauai District
X Historic Preservation

TO:

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua`i County Housing Agency Affordable Housing Development, Rice Camp Parcels
LOCATION: Rice Camp Parcels, Lihu`e, Kaua`i, Hawai`i, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
APPLICANT: Environet, Inc., on behalf of Kaua`i County Housing Agency

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by March 5, 2013. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

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

Signed: _____
Print Name: Milo Spindt
Date: 2/15/13

c: Central Files

PM4:08:38
FEB 14 '13
DLNR KDLO RCVD

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 12, 2013

RECEIVED
LAND DIVISION
2013 FEB 25 PM 2:42
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

MEMORANDUM

TO: FROM:

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Kauai District
X Historic Preservation

TO:

FROM: Russell Y. Tsuji, Land Administrator

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua`i County Housing Agency Affordable Housing Development, Rice Camp Parcels

LOCATION: Rice Camp Parcels, Lihu`e, Kaua`i, Hawai`i, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001

APPLICANT: Environet, Inc., on behalf of Kaua`i County Housing Agency

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Attachments

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

Signed: _____
Print Name: Carty S. Chang, Chief Engineer
Date: 2/25/13

c: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/SteveMolmen
RE:PreAssessConsultKauaiCtyAffordableHousingDev
Kauai.128

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Mario Siu Li at (808) 768-8098 or Ms. Ardis Shaw-Kim at (808) 768-8296 of t he City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.

( ) Ms. Carolyn Cortez at (808) 270-7813 of the County of Maui, Department of Planning.

( ) Mr. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 2/25/13

NEIL ABERCROMBIE
GOVERNOR
STATE OF HAWAII

JOBIE M. K. MASAGATANI
CHAIRMAN
HAWAIIAN HOMES COMMISSION

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P. O. BOX 1879
HONOLULU, HAWAII 96805

March 21, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai'i 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kaua'i County Housing Agency Affordable Housing Development
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Lihu'e, Kaua'i, Hawai'i

Thank you for the opportunity to comment on the Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record. The Department of Hawaiian Home Lands has no comment to offer at this time.

Should you have any questions, please contact the Planning Office at (808) 620-9480.

Aloha,

Darrell C. Yagodich,
Planning Program Manager

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NEIL ABERCROMBIE
GOVERNOR

PATRICIA McMANAMAN
DIRECTOR

BARBARA A. YAMASHITA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
Benefit, Employment & Support Services Division
820 Mililani Street, Suite 606
Honolulu, Hawaii 96813

February 27, 2013

Refer to 13:0088

RECEIVED
MAR - 7 2013

Ms. Colette Sakoda
Environet. Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua'i County Housing Agency Affordable Housing Development Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 Lihu'e, Kauai, Hawai'i

Thank you for your letter dated February 7, 2013 that requests the Department of Human Services (DHS) review and comment on the proposed affordable housing development at Rice Camp parcels in Lihu'e on the island of Kaua'i. The Director of the (DHS) has forwarded your letter to me for a response.

The DHS has no comment at this time to the pre-assessment consultation for the Environmental Assessment. However there is a group child care facility, Koa Keiki Head Start located 4160 Hoala Street in the vicinity that may be impacted by the proposed affordable housing development at Rice Camp parcels.

If you have any questions or need further information, please contact Ms. Jill Arizumi, Child Care Program Specialist, at (808) 586-5240.

Sincerely,

Scott Nakasone
Assistant Division Administrator

c: Patricia McManaman, Director
Klayfield Nakaahiki, Kaua'i County Housing Agency

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NEIL ABERCROMBIE
GOVERNOR

Dean H. Seki
Comptroller

Maria E. Zielinski
Deputy Comptroller

(P)1042.3

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

FEB 25 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record
Kauai County Housing Agency Affordable Housing Development
Rice Camp Parcels, Lihue, Kauai
TMKs: (4) 3-6-004: 009 and (4) 3-6-009: 001

Thank you for the opportunity to provide comments for the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer at this time.

If you have any questions, please call me at 586-0400 or have your staff call Ms. Gayle Takasaki of the Public Works Division at 586-0584.

Sincerely,

JAMES K. KURATA
Public Works Administrator

GT:mo
c: Mr. Klayford Nakaahiki

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Department of
Water
County of Kaua'i

Water has no substitute.....Conserve it

March 6, 2013

UID #6099

Ms. Collette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, HI 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment: Kauai County Housing Development, Rice Camp Parcels, TMK: 3-6-04:009 and TMK: 3-6-09:001, Lihue, Kauai, Hawaii

This is in regard to your letter dated February 07, 2013. We have no objections to the proposed Draft Environmental Assessment. The following are our comments to the subject Draft Environmental Assessment for Kauai County Housing Development, Rice Camp Parcels.

Water service will be limited to the existing water meters serving this parcel. Any actual subdivision or development of this area will be dependent on the adequacy of the source, storage, and transmission facilities existing at that time. At the present time, the existing storage and transmission facilities are adequate. The existing source is not adequate for the proposed project which included an 84 unit low-cost elderly housing resident development.

Prior to the Department of Water (DOW) recommending building permit or water service approval, the applicant will be required to:

1. Submit a formal request for water service. The applicant shall describe the proposed water meter use. The applicant shall submit detailed water demand calculations, along with the proposed water meter size, to the DOW for review and approval. DOW conditions for approval may change based on the approved water demands and use.
2. Prepare and receive DOW's approval of construction drawings for the necessary water system facilities and construct said facilities. These facilities shall include but not be limited to:
   a) The domestic service connection.
   b) The fire service connection, if applicable.
   c) The interior plumbing plans with the appropriate backflow prevention device for proposed and existing water meter(s).
   d) Additional source facilities.

4398 Pua Loke St., P.O. Box 1706, Lihue, HI 96766 Phone; 808-245-5400
Engineering and Fiscal Fax: 808-245-5813, Operations Fax: 808-245-5402, Administration Fax: 808-246-8628

3. Pay the applicable charges in effect at the time of payment to the DOW. At the present time, these charges include the Facilities Reserve Charge (FRC) which is based on $4,600 per 5/8-inch water meter/unit or the FRC based on the approved water meter size, whichever amount is greater.
4. FRC offsets may apply for source, storage, and transmission facilities that qualify for offsets, in accordance with the DOW Rules and Regulations.
5. Receive a "Certification of Completion" notice for the construction of necessary water system facilities from the DOW.

If you have any questions concerning the construction drawings, please contact Mr. Keith Aoki at (808) 245-5411. For questions concerning the Certification of Completion, please contact Mr. Dustin Moises at (808) 245-5459. For other questions, please contact Ms. Regina Flores at (808) 245-5418.

Sincerely,

Gregg Fujikawa
Chief of Water Resources and Planning Division

RF:loo
EA, 3-6-04:009&3-6-09:001, T-14623, Collete Sakoda

Department of Water County of Kaua'i

Water has no substitute.....Conserve it

March 6, 2013 UID #6099

Ms. Collette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, HI 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment: Kauai County Housing Development, Rice Camp Parcels, TMK: 3-6-04:009 and TMK: 3-6-09:001, Lihue, Kauai, Hawaii

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   a) The domestic service connection.
   b) The fire service connection, if applicable.
   c) The interior plumbing plans with the appropriate backflow prevention device for proposed and existing water meter(s).
   d) Additional source facilities.

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Sincerely,

Gregg Fujikawa
Chief of Water Resources and Planning Division

RF:loo
EA, 3-6-04:009&3-6-09:001, T-14623, Collete Sakoda

4398 Pua Loke St., P.O. Box 1706, Lihue, HI 96766 Phone: 808-245-5400
Engineering and Fiscal Fax: 808-245-5813, Operations Fax: 808-245-5402, Administration Fax: 808-246-8628

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NEIL ABERCROMBIE
GOVERNOR

Dean H. Seki
Comptroller

Maria E. Zielinski
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1042.3

FEB 25 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record
Kauai County Housing Agency Affordable Housing Development
Rice Camp Parcels, Lihue, Kauai
TMKs: (4) 3-6-004: 009 and (4) 3-6-009: 001

Thank you for the opportunity to provide comments for the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer at this time.

If you have any questions, please call me at 586-0400 or have your staff call Ms. Gayle Takasaki of the Public Works Division at 586-0584.

Sincerely,

JAMES K. KURATA
Public Works Administrator

GT:mo
c: Mr. Klayford Nakaahiki

NEIL ABERCROMBIE
GOVERNOR

PATRICIA McMANAMAN
DIRECTOR

BARBARA A. YAMASHITA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
Benefit, Employment & Support Services Division
820 Mililani Street, Suite 606
Honolulu, Hawaii 96813

February 27, 2013

Refer to 13:0088

RECEIVED
MAR - 7 2013

Ms. Colette Sakoda
Environet. Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua'i County Housing Agency Affordable Housing Development Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 Lihu'e, Kauai, Hawai'i

Thank you for your letter dated February 7, 2013 that requests the Department of Human Services (DHS) review and comment on the proposed affordable housing development at Rice Camp parcels in Lihu'e on the island of Kaua'i. The Director of the (DHS) has forwarded your letter to me for a response.

The DHS has no comment at this time to the pre-assessment consultation for the Environmental Assessment. However there is a group child care facility, Koa Keiki Head Start located 4160 Hoala Street in the vicinity that may be impacted by the proposed affordable housing development at Rice Camp parcels.

If you have any questions or need further information, please contact Ms. Jill Arizumi, Child Care Program Specialist, at (808) 586-5240.

Sincerely,

Scott Nakasone
Assistant Division Administrator

c: Patricia McManaman, Director
Klayfield Nakaahiki, Kaua'i County Housing Agency

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NEIL ABERCROMBIE
GOVERNOR
STATE OF HAWAII

JOBIE M. K. MASAGATANI
CHAIRMAN
HAWAIIAN HOMES COMMISSION

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P. O. BOX 1879
HONOLULU, HAWAII 96805

March 21, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai'i 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kaua'i County Housing Agency Affordable Housing Development
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Lihu'e, Kaua'i, Hawai'i

Thank you for the opportunity to comment on the Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record. The Department of Hawaiian Home Lands has no comment to offer at this time.

Should you have any questions, please contact the Planning Office at (808) 620-9480.

Aloha,

Darrell C. Yagodich,
Planning Program Manager

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 6, 2013

Environet, Inc.
Attention: Ms. Colette Sakoda
1286 Queen Emma Street
Honolulu, Hawai`i, 96813

via email: csakoda@environetinc.com

Dear Ms. Sakoda,

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua`i County Housing Agency Affordable Housing Development, Rice Camp Parcels

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

At this time, enclosed are comments from the (1) Land Division – Kaua`i District; and (2) Engineering Division on the subject matter. No other comments were received as of our suspense date. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at 587-0439. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 12, 2013

RECEIVED
LAND DIVISION
2013 FEB 21 AM 10: 13
DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII

MEMORANDUM

TO:

TO:

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Kauai District
X Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua'i County Housing Agency Affordable Housing Development, Rice Camp Parcels
LOCATION: Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
APPLICANT: Environet, Inc., on behalf of Kaua'i County Housing Agency

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by March 5, 2013. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

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

Signed: _____
Print Name: Milo Spindt
Date: 2/15/13

c: Central Files

2013 03:39
FEB 14 '13
DLNR KDLO RCVD

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 12, 2013

MEMORANDUM

RECEIVED
LAND DIVISION
2013 FEB 25 PM 2: 42
DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII

TO: FROM:

TO:

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Kauai District
X Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua'i County Housing Agency Affordable Housing Development, Rice Camp Parcels
LOCATION: Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
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Attachments

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

Signed: _____
Print Name: Carty S. Chang, Chief Engineer
Date: 2/25/13

c: Central Files

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DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/SteveMolmen
RE:PreAssessConsultKauaiCtyAffordableHousingDev
Kauai.128

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Mario Siu Li at (808) 768-8098 or Ms. Ardis Shaw-Kim at (808) 768-8296 of t he City and County of Honolulu, Department of Planning and Permitting.
( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
( ) Ms. Carolyn Cortez at (808) 270-7813 of the County of Maui, Department of Planning.
( ) Mr. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 2/25/13

NEIL ABERCROMBIE
GOVERNOR

KATHRYN S. MATAYOSHI
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

March 12, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: **Pre-Assessment Consultation for Kauai County Housing Agency Rice Camp Parcels, Lihue, Kauai TMK 3-6-004:009 and 3-6-009:001**

The Department of Education (DOE) has reviewed your letter of February 20, 2013 describing a proposed project for an affordable housing project in Lihue. If the proposed project is dedicated to elderly residents and if school-age children are not permitted to live in the project, DOE has no concerns. If school-age children are able to live in the project, the DOE would want to be informed so that impacts to local schools could be anticipated.

Thank you for this opportunity to offer our comments. If you have any questions, please call Heidi Meeker of the Facilities Development Branch at 377-8301.

Sincerely yours,

Duane Y. Kashiwai
Public Works Administrator

DYK:jmb

c: William Arakaki, CAS, Kauai Complex Area
Klayford Nakaahiki, Kauai County Housing Agency
Raymond L'Heureux, Assistant Superintendent, OSFSS

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

LUD-4 3 6 004 009-ID1235
PreAsmnt Cons Rice Camp Parcels

March 15, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kauai County Housing Agency Affordable Housing Development
Rice Camp Parcels, 2914 Kalena Street, Lihue, Kauai, Hawaii 96766
TMK Nos. (4) 3-6-004: 009 & (4) 3-6-009: 001 84 units

Thank you for allowing us the opportunity to provide comments for the subject project. The project is located in the critical wastewater disposal area as determined by the Kauai County Wastewater Advisory Committee. We are unable to offer additional comments at this time because domestic wastewater treatment and disposal have not been addressed in the document. Information about the project will be required to be submitted to our office before we will be able to determine what type of wastewater treatment system will be allowed if a sewer connection to a private or County sewer system is not available for the project.

Should you have any questions, please contact our Planning & Design Section at 586-4294 or fax to 586-4300.

Sincerely,

SINA PRUDER, P.E., ACTING CHIEF
Wastewater Branch

LM:mt

c: DOH-Environmental Planning Office (13-049), Ms. Laura McIntyre
DOH-WWB's Kauai Staff, Ms. Lori Vetter

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:
13-049
Rice Camp

RECEIVED
MAR - 7 2013

March 4, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kauai County Housing Agency Affordable Housing Development, Rice Camp Parcels, TMK Nos. : (4) 3-6-004: 009 and (4) 3-6-009: 001, Lihue, Kauai, Hawaii

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your letter dated February 7, 2013. Thank you for allowing us to review and comment on the subject document. The document was routed to the Wastewater Branch. They will provide specific comments to you if necessary. EPO recommends that you review the Standard Comments (www.hawaii.gov/health/epo under the land use tab). You are required to adhere to all Standard Comments specifically applicable to this application.

EPO suggests that you examine the many sources available on strategies to support the sustainable design of communities, including the:
U.S. Environmental Protection Agency's sustainability programs: www.epa.gov/sustainability
U.S. Green Building Council's LEED program: www.new.usgbc.org/leed

The DOH encourages everyone to apply these sustainability strategies and principles early in the planning and review of projects. We also request that for future projects you consider conducting a Health Impact Assessment (HIA). More information is available at www.cdc.gov/healthyplaces/hia.htm. We request you share all of this information with others to increase community awareness on sustainable, innovative, inspirational, and healthy community design.

We request a written response confirming receipt of this letter and any other letters you receive from DOH in regards to this submission. You may mail your response to 919 Ala Moana Blvd., Ste. 312, Honolulu, Hawaii 96814. However, we would prefer an email submission to epo@doh.hawaii.gov. We anticipate that our letter(s) and your response(s) will be included in the final document. If you have any questions, please contact me at (808) 586-4337.

Mahalo,

Laura Leialoha Phillips McIntyre, AICP
Manager, Environmental Planning Office

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

February 26, 2013

Regulatory Branch **POH-2013-00045**

Environet, Inc.
Attn: Colette Sakoda
1286 Queen Emma Street
Honolulu, HI 96813

Dear Ms. Sakoda:

This is in response to your February 7, 2013 letter requesting the Department of the Army review and comment on the proposed affordable housing development at Rice Camp Parcels TMKs (4) 3-6-004:009 and (4) 3-6-009:001 in Lihue, Island of Kaua'i, Hawai'i. We have completed our review of the submitted document and have the following comments:

Your proposed project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a DA permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, capacity, or condition of the waterbody. Some typical examples of structures or work requiring Section 10 permits within this jurisdictional area include beach nourishment, boat ramps, breakwaters, bulkheads, and dredging.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Mean Higher High Tide Line (MHHTL) or to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands. Fill material is any material that replaces a jurisdictional aquatic area with dry land or changes the bottom elevation of a waterbody. Fill may be temporary or permanent and often includes, but is not limited to, rock, sand, concrete, and sandbags. Projects involving discharges typically include placement of fill material for homes and landscaping, impoundments , road fills, dams and dikes, culverts, riprap, and beach nourishment. Section 404 also regulates discharges of dredged material incidental to certain activities such as

grading, mechanized landclearing, ditching or other excavation activity, and the installation of certain pile-supported structures.

The Corps of Engineers has sole authority to determine if an aquatic feature is/is not a water of the U.S., potentially subject to regulation under Section 10 and/or Section 404. Based on the submitted documents, a portion of Nawiliwili Stream appears to flow through the southern portion of TMK: (4) 3-6-004:009. Nawiliwili Stream is perennial, with end terminus in the Pacific Ocean, and therefore is subject to Section 404. Please submit further documentation you may have in regards to proposed work in or adjacent to Nawiliwili Stream, along with any additional aquatic features that may be present on the property. Please submit drawings as outlined on our website (www.poh.usace.army.mil). Specifically, drawing recommendations must be on 8.5"x11" sheets of paper, show existing and proposed conditions, and show the Mean High Water Mark/Ordinary High Water Mark. Please also indicate in writing the proposed construction in relation to any aquatic features, including Nawiliwili Stream.

Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Should you have any questions, please contact Kaitlyn Seberger of this office at the above address or telephone 808-835-4300 (FAX: 808-835-4301) or by E-Mail at Kaitlyn.R.Seberger@usace.army.mil. Please refer to File Number **POH-2013-00045** in all future communications with this office regarding this or other projects at this location.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

MAR 0 7 2013

In Reply Refer To:
2013-TA-0131

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Subject: Technical Assistance with pre-assessment of Draft Environmental Assessment for Kauai County Housing Agency Affordable Housing Development Rice Camp Parcels

Dear Ms. Sakoda:

The U.S. Fish and Wildlife Service (Service) received your letter on February 11, 2013, requesting a pre-assessment consultation for a Draft Environmental Assessment and Environmental Review Record regarding potential impacts of the proposed Kauai County Housing Agency Affordable Housing Development in Rice Camp Parcels, in Lihue, Kauai. You requested a list of issues that would identify potential environmental impacts associated with the proposed project.

We have reviewed the proposed project location, TMK Numbers (4) 3-6-004:009 and (4) 3-6-009:001, and pertinent information in our files pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) as amended, and the Migratory Bird Treaty Act [16 U.S.C. 703-712]. The project is not located near a wilderness area, a wildlife preserve, or a National Wildlife Refuge. There is no proposed or designated critical habitat in the vicinity or the project site. Three seabird species, the federally endangered Hawaiian petrel (*Pterodroma sandwichensis*), threatened Newell's shearwater (*Puffinus auricularis newelli*), and a candidate for listing, the band-rumped storm petrel (*Oceanodroma castro*) (collectively referred to as Hawaiian seabirds), are known to fly over the project area while traveling from the sea to their breeding sites. Additionally, the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) may forage or roost in the vicinity of the proposed housing development. Because these species could therefore be impacted by the proposed project, the Service offers the following recommendations to assist you with minimization and avoidance of impacts to listed species:

- The threatened Newell's shearwater, the endangered Hawaiian petrel, and a candidate for listing, the band-rumped storm petrel are known to traverse the project area when flying between the ocean and mountain nesting sites. Seabirds are vulnerable to collision with above ground objects throughout their breeding season of March through December 15. Once grounded, seabirds are vulnerable to predators and are often struck

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by vehicles along roadways. We recommend only using essential lights, fully shielding all lights, and avoiding nighttime construction that requires lighting to avoid and minimize potential impacts to seabirds.

- The endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) roosts in exotic and native woody vegetation and, while foraging, will leave her young unattended in "nursery" trees and shrubs. If trees or shrubs suitable for bat roosting are cleared during the breeding season, there is a risk that young bats could inadvertently be harmed or killed. As a result, woody plants greater than 15 feet (4.6 meters) tall should not be removed or trimmed from June 1 to September 15.

Although we recommend incorporating the above measures into your project, the measures may not eliminate adverse effects to threatened and endangered species. Should the potential for incidental take occur, or if project plans change or new information regarding the presence of listed species becomes available, we recommend you coordinate with our office for additional consultation that may be required by Federal Authorities under the jurisdiction of the Service. We appreciate your efforts to conserve listed species and to avoid and minimize impacts to the terrestrial and aquatic environment. If you have questions regarding this letter or proposed minimization and avoidance recommendations to be incorporated into your Draft Environmental Assessment, please contact Diane Sether, Ph.D., Wildlife Biologist, (phone: 808-792-9458, fax: 808-792-9581).

Sincerely,

For Loyal Mehrhoff
Field Supervisor

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United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813
Phone: (808) 587-2400/Fax: (808) 587-2401

February 27, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai'i 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kaua'i County Housing Agency Affordable Housing Development, Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:01, Līhu'e, Kaua'i, Hawai'i

Thank you for forwarding the subject Pre-Assessment Consultation notice for review and comment by the staff of the U.S. Geological Survey Pacific Islands Water Science Center. We regret however, that due to prior commitments and lack of available staff, we are unable to review this document.

We appreciate the opportunity to participate in the review process.

Sincerely,

SS Ah

Stephen S. Anthony
Center Director

Mr. Klayford Nakaahiki
Kaua'i County Housing Agency
County of Kaua'i, State of Hawai'i
Pi'ikoi Building, 4444 Rice Street, Suite 330
Līhu'e, Hawai'i 96766

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United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813
Phone: (808) 587-2400/Fax: (808) 587-2401

February 27, 2013

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Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai'i 96813

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Sincerely,

Stephen S. Anthony
Center Director

Mr. Klayford Nakaahiki
Kaua'i County Housing Agency
County of Kaua'i, State of Hawai'i
Pi'ikoi Building, 4444 Rice Street, Suite 330
Līhu'e, Hawai'i 96766

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

MAR 0 7 2013

In Reply Refer To:
2013-TA-0131

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Subject: Technical Assistance with pre-assessment of Draft Environmental Assessment for Kauai County Housing Agency Affordable Housing Development Rice Camp Parcels

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Sincerely,

For Loyal Mehrhoff
Field Supervisor

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

February 26, 2013

Regulatory Branch

POH-2013-00045

Environet, Inc.
Attn: Colette Sakoda
1286 Queen Emma Street
Honolulu, HI 96813

Dear Ms. Sakoda:

This is in response to your February 7, 2013 letter requesting the Department of the Army review and comment on the proposed affordable housing development at Rice Camp Parcels TMKs (4) 3-6-004:009 and (4) 3-6-009:001 in Lihue, Island of Kaua'i, Hawai'i. We have completed our review of the submitted document and have the following comments:

Your proposed project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a DA permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, capacity, or condition of the waterbody. Some typical examples of structures or work requiring Section 10 permits within this jurisdictional area include beach nourishment, boat ramps, breakwaters, bulkheads, and dredging.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Mean Higher High Tide Line (MHHTL) or to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands. Fill material is any material that replaces a jurisdictional aquatic area with dry land or changes the bottom elevation of a waterbody. Fill may be temporary or permanent and often includes, but is not limited to, rock, sand, concrete, and sandbags. Projects involving discharges typically include placement of fill material for homes and landscaping, impoundments , road fills, dams and dikes, culverts, riprap, and beach nourishment. Section 404 also regulates discharges of dredged material incidental to certain activities such as

grading, mechanized landclearing, ditching or other excavation activity, and the installation of certain pile-supported structures.

The Corps of Engineers has sole authority to determine if an aquatic feature is/is not a water of the U.S., potentially subject to regulation under Section 10 and/or Section 404. Based on the submitted documents, a portion of Nawiliwili Stream appears to flow through the southern portion of TMK: (4) 3-6-004:009. Nawiliwili Stream is perennial, with end terminus in the Pacific Ocean, and therefore is subject to Section 404. Please submit further documentation you may have in regards to proposed work in or adjacent to Nawiliwili Stream, along with any additional aquatic features that may be present on the property. Please submit drawings as outlined on our website (www.poh.usace.army.mil). Specifically, drawing recommendations must be on 8.5"x11" sheets of paper, show existing and proposed conditions, and show the Mean High Water Mark/Ordinary High Water Mark. Please also indicate in writing the proposed construction in relation to any aquatic features, including Nawiliwili Stream.

Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Should you have any questions, please contact Kaitlyn Seberger of this office at the above address or telephone 808-835-4300 (FAX: 808-835-4301) or by E-Mail at Kaitlyn.R.Seberger@usace.army.mil. Please refer to File Number **POH-2013-00045** in all future communications with this office regarding this or other projects at this location.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

LUD-4 3 6 004 009-ID1235
PreAsmnt Cons Rice Camp Parcels

March 15, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kauai County Housing Agency Affordable Housing Development
Rice Camp Parcels, 2914 Kalena Street, Lihue, Kauai, Hawaii 96766
TMK Nos. (4) 3-6-004: 009 & (4) 3-6-009: 001 84 units

Thank you for allowing us the opportunity to provide comments for the subject project. The project is located in the critical wastewater disposal area as determined by the Kauai County Wastewater Advisory Committee. We are unable to offer additional comments at this time because domestic wastewater treatment and disposal have not been addressed in the document. Information about the project will be required to be submitted to our office before we will be able to determine what type of wastewater treatment system will be allowed if a sewer connection to a private or County sewer system is not available for the project.

Should you have any questions, please contact our Planning & Design Section at 586-4294 or fax to 586-4300.

Sincerely,

SINA PRUDER, P.E., ACTING CHIEF
Wastewater Branch

LM:mt

c: DOH-Environmental Planning Office (13-049), Ms. Laura McIntyre
DOH-WWB's Kauai Staff, Ms. Lori Vetter

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

March 4, 2013

RECEIVED
MAR - 7 2013

In reply, please refer to:
File:
13-049
Rice Camp

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record: Kauai County Housing Agency Affordable Housing Development, Rice Camp Parcels, TMK Nos. : (4) 3-6-004: 009 and (4) 3-6-009: 001, Lihue, Kauai, Hawaii

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your letter dated February 7, 2013. Thank you for allowing us to review and comment on the subject document. The document was routed to the Wastewater Branch. They will provide specific comments to you if necessary. EPO recommends that you review the Standard Comments (www.hawaii.gov/health/epo under the land use tab). You are required to adhere to all Standard Comments specifically applicable to this application.

EPO suggests that you examine the many sources available on strategies to support the sustainable design of communities, including the:
U.S. Environmental Protection Agency's sustainability programs: www.epa.gov/sustainability
U.S. Green Building Council's LEED program: www.new.usgbc.org/leed

The DOH encourages everyone to apply these sustainability strategies and principles early in the planning and review of projects. We also request that for future projects you consider conducting a Health Impact Assessment (HIA). More information is available at www.cdc.gov/healthyplaces/hia.htm. We request you share all of this information with others to increase community awareness on sustainable, innovative, inspirational, and healthy community design.

We request a written response confirming receipt of this letter and any other letters you receive from DOH in regards to this submission. You may mail your response to 919 Ala Moana Blvd., Ste. 312, Honolulu, Hawaii 96814. However, we would prefer an email submission to epo@doh.hawaii.gov. We anticipate that our letter(s) and your response(s) will be included in the final document. If you have any questions, please contact me at (808) 586-4337.

Mahalo,

Laura Leialoha Phillips McIntyre, AICP
Manager, Environmental Planning Office

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APPENDIX A-2

DRAFT EA COMMENT LETTERS AND RESPONSES

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DEPARTMENT OF THE ARMY
HONOLULU DISTRICT, U.S. ARMY CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440

COUNTY OF KAUAI
HOUSING AGENCY

REPLY TO
ATTENTION OF:

June 10, 2013

13 JUN 12 P1:01

Regulatory Branch

POH-2013-00045

Kaua'i County Housing Agency
Attn: Kamuela Cobb-Adams, Housing Director
Pi'ikoi Building 4444 Rice Street, Suite 330
Līhu'e, HI 96766

NO PERMIT REQUIRED

Dear Mr. Cobb-Adams:

This is in response to your May 29, 2013 letter for the Department of the Army to review and comment on the proposed affordable housing development at Rice Camp parcels, TMKs: (4) 3-6-004:009 and (4) 3-6-009:001, Līhu'e, Island of Kaua'i, Hawai'i. We have assigned the project the reference number **POH-2013-00045**. Please cite this reference number in any correspondence with us concerning this project. We have completed our review of the submitted document and have the following comments:

Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires that a Department of the Army (DA) permit be obtained from the U.S. Army Corps of Engineers (Corps) prior to undertaking any construction, dredging, and other activities occurring in, over, or under navigable waters of the U.S. Section 404 of the Clean Water Act (Section 404) of 1972 (33 U.S.C. 1344) requires that a DA permit be obtained for the discharge, or placement, of dredge and/or fill material into waters of the U.S., including wetlands.

Based on our review of the submitted document, it appears the project location consists entirely of uplands and no navigable waters of the U.S. are present. As such, authorization under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act do not appear to be required for the proposed project.

If the project design should change and work is to be proposed in wetlands, streams, drainage ditches, the Pacific Ocean, or other aquatic resource, (whether or not water is present in that resource during project construction) please contact our office to request a jurisdictional determination. We can then determine if any regulatory requirements apply to work that may impact those resources.

Thank you for contacting us regarding this project. We look forward to working with you on this project as well as any future projects. Should you have any questions, please contact Kaitlyn Seberger, at (808) 835-4300 or via email at Kaitlyn.R.Seberger@usace.army.mil.

Sincerely,

George P. Young, P. E.
Chief, Regulatory

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. George P. Young, P.E.
U.S. Army Corps of Engineers Honolulu District
Pacific Ocean Division
Building 525, Suite 300
Fort Shafter, Hawai'i 96858

Dear Mr. Young:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated June 10, 2013 and acknowledge your comment that because the project location consists entirely of uplands and no navigable waters of the U.S. are present, authorization under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act are not required for this project. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813

Phone: (808) 587-2400/Fax: (808) 587-2401

June 11, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai'i 96813

Dear Ms. Sakoda:

Subject: Chapter 343 Hawai'i Revised Statutes (HRS) Draft Environmental Assessment (EA) and National Environmental Policy Act (NEPA), 24 Code of Federal Regulations (CFR) Part 58 Draft Environmental Record Review (ERR) for the proposed affordable housing development at Rice Camp parcels (TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001) in Līhue on the Island of Kaua'i

Thank you for forwarding the subject Draft EA/ERR for review and comment by the staff of the U.S. Geological Survey Pacific Islands Water Science Center. We regret however, that due to prior commitments and lack of available staff, we are unable to review this document.

We appreciate the opportunity to participate in the review process.

Sincerely,

SSCA

Stephen S. Anthony
Center Director

cc: Mr. Klayford Nakaahiki
Kaua'i County Housing Agency
County of Kaua'i, State of Hawai'i
Pi'ikoi Building, 4444 Rice Street, Suite 330
Līhu'e, Hawai'i 96766

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. Stephen S. Anthony
United States Department of the Interior
U.S. Geological Survey
Pacific Islands Water Science Center
677 Ala Moana Blvd., Suite 415
Honolulu, Hawai'i 96813

Dear Mr. Anthony:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated June 11, 2013, and acknowledge your comment that due to prior commitments and lack of available staff, the U.S. Geological Survey is unable to review the document. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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NEIL ABERCROMBIE
GOVERNOR

Dean H. Seki
Comptroller

Maria E. Zielinski
Deputy Comptroller

(P)1133.3

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

JUN 14 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, HI 96813

Dear Ms. Sakoda:

Thank you for the opportunity to provide comments for the subject project. The proposed location does not impact any of the Department of Accounting and General Services' existing facilities in the area and we have no comments to offer at this time.

If you have any questions, please call me at 586-0400 or your staff may call Ms. Gayle Takasaki of the Public Works Division at 586-0488.

Sincerely,

DEAN H. SEKI
Comptroller

c: Mr. Klayford Nakaahiki, Kauai County Housing Agency

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. Dean H. Seki
State of Hawai'i
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawai'i 96810-0119

Dear Mr. Seki:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated June 14, 2013. We acknowledge your comment that the proposed location does not impact any of the Department of Accounting and General Services' existing facilities in the area and you have no comments at this time. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
EMD/CWB

06043PST.13

June 19, 2013

Mr. Klayford Nakaahiki
Kauai County Housing Authority
Piikoi Building, 4444 Rice Street, Suite 330
Lihue, Hawaii 96766

Dear Mr. Nakaahiki:

SUBJECT: Comments on the Draft Environmental Assessment (DEA) for the Proposed Affordable Housing Development at Rice Camp Lihue, Island of Kauai, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated May 29, 2013, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. As stated in your DEA, you will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the CWB Individual NPDES Form through the e-Permitting Portal and the hard copy certification statement with $1,000 filing fee. Please open the e-Permitting

Portal website at: https://eha-cloud.doh.hawaii.gov/epermit/View/home.aspx. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the "CWB Individual NPDES Form." Follow the instructions to complete and submit this form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommend that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 438-9258) regarding their permitting requirements.

   Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at: http://health.hawaii.gov/cwb/, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

ALEC WONG, P.E., CHIEF
Clean Water Branch

ST:rh

c: DOH-EPO #13-118 [via email only]
Ms. Colette Sakoda, Environet, Inc.

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. Alec Wong, P.E., Chief
State of Hawai'i, Department of Health
Clean Water Branch
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

Dear Mr. Wong:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated June 19, 2013, and note your comment that all project related construction and operation activities will be required to be in compliance with applicable sections of the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55 as well as additional requirements related to the Department of Health, Clean Water Branch (CWB). We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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NEIL ABERCROMBIE
GOVERNOR

PATRICIA McMANAMAN
DIRECTOR

BARBARA A. YAMASHITA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
Benefit, Employment & Support Services Division
820 Mililani Street, Suite 606
Honolulu, Hawaii 96813

June 12, 2013

Refer to 13:0325

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Draft Environmental Assessment And Draft Environmental Record Review For The Proposed Affordable Housing Development At Rice Camp Parcels,(TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001) in Lihu'e, Kaua'i, Hawai'i.

Thank you for the opportunity to provide comments for the above named project. Your letter dated May 29, 2013 to the Department of Human Services (DHS) requesting our review and comment on the proposed affordable housing development at Rice Camp parcels in Lihu'e on the island of Kaua'i has been forwarded to me for a response.

The DHS has no comment at this time to the Environmental Assessment or to the Kauai County Housing Agency proposed development of affordable housing at the Rice Camp parcels.

If you have any questions or need further information, please contact Ms. Marja Leivo, Child Care Program Specialist, at (808) 586-7058.

Sincerely,

Scott Nakasone
Assistant Division Administrator

c: Patricia McManaman, Director
Klayford Nakaahiki, Kaua'i County Housing Agency

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. Scott Nakasone
State of Hawai'i
Department of Human Services
Benefit, Employment & Support Services Division
820 Mililani Street
Honolulu, Hawai'i 96813

Dear Mr. Nakasone:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated June 12, 2013. We acknowledge your comment that the DHS has no comment at this time. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 3, 2013

Environet, Inc.
Attention: Ms. Colette Sakoda
1286 Queen Emma Street
Honolulu, Hawai`i 96813

via email: csakoda@environetinc.com

Dear Ms. Sakoda,

SUBJECT: Affordable Housing Development at Rice Camp Parcels, Draft Environmental Assessment (DEA)

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

At this time, enclosed are comments from (1) Land Division – Kauai District; and (2) Commission on Water Resource Management. No other comments were received as of our suspense date. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at 587-0439. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PM4:34:31
JUN 7'13
DLNR KDLO RCVD

June 5, 2013

MEMORANDUM

RECEIVED
LAND DIVISION
2013 JUN 19 AM 10: 12
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Kauai District
X Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Affordable Housing Development at Rice Camp Parcels, Draft Environmental Assessment (DEA)
LOCATION: Rice Camp parcels, Lihu`e, Kaua`i, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
APPLICANT: Kaua`i County Housing Agency by its consultant, Environet, Inc.

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

The document can be found here:

1. Go to: https://sp01.ld.dlnr.hawaii.gov/LD
2. Login: Username: LD\Visitor Password: 0pa$$word0 (first and last characters are zeros)
3. Click on: Requests for Comments
4. Click on the subject file "Affordable Housing Development at Rice Camp Parcels, DEA", then click on "Files" and "Download a copy".

Please submit any comments by July 2, 2013. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

(X) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: _____
Print Name: Milo Spindt DLA Kauai
Date: 6/10/13

c: Central Files

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. Russell Y. Tsuji
State of Hawai'i, Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawai'i 96809

Dear Mr. Tsuji:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated July 3, 2013. We acknowledge your comment that the Land Division has no objections and no comments at this time. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON

WILLIAM D. BALFOUR, JR.
SUMNER ERDMAN
LORETTA J. FUDDY, A.C.S.W., M.P.H.
NEAL S. FUJIWARA
JONATHAN STARR
TED YAMAMURA

WILLIAM M. TAM
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

June 19, 2013

TO: Russell Tsuji, Administrator
Land Division

FROM: William M. Tam, Deputy Director
Commission on Water Resource Management

SUBJECT: Rice Camp Affordable Housing, Lihue, Kauai

FILE NO.:
TMK NO.: (4) 3-6-004:009 & 3-6-009:001

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

RECEIVED
LAND DIVISION
2013 JUN 19 AM 10: 07
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

Our comments related to water resources are checked off below.

☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

☒ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EPA as having high water efficiency can be found at http://www.epa.gov/watersense/.

☒ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://hawaii.gov/dbedt/czm/initiative/lid.php.

☒ 6. We recommend the use of alternative water sources, wherever practicable.

☐ 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at http://energy.hawaii.gov/programs/achieving-efficiency/green-business-program

☒ 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at http://landscapehawaii.org/_library/documents/lich_irrigation_conservation_bmps.pdf

☐ 9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:
Additional information and forms are available at http://hawaii.gov/dlnr/cwrm/info_permits.htm.

☐ 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.

☐ 11. A Well Construction Permit(s) is (are) required before any well construction work begins.

☐ 12. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☐ 13. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 14. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 15. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.

☐ 16. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.

☐ 17. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☒ 18. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☒ OTHER:

The document gives no estimate of water use requirements. It only states that potable water demand for the proposed 60 dwelling units and laundry facilities is estimated to be equal to the current allotment for the two parcels involved. Following the County consumption guidelines of 500 gpd per dwelling unit (du), this would equal 30,000 gpd plus amounts required for laundry facilities and landscaping. The parcels total an area of just under 7 acres.

If there are any questions, please contact Charley Ice at 587-0218.

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. William M. Tam
State of Hawai'i
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawai'i 96809

Dear Mr. Tam

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated June 19, 2013, and note the Commission's recommendations:

- incorporate this project into the county's Water Use and Development plan;
- water efficient fixtures be installed and water efficient practices be implemented throughout the development to reduce the increased demand on the area's freshwater resources;
- use of best management practices (BMPs) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events; and
- use of alternative water sources, wherever practicable and to adopt landscape irrigation conservation BMPs endorsed by the Landscape Industry Council of Hawaii.

We are working with our Water Department to establish potable water service for our new development. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
DIR 0814
STP 8.1251

July 9, 2013

Mr. Klayford Nakaahiki
County of Kauai
Kauai County Housing Agency
Piikoi Building
4444 Rice Street, Suite 330
Lihue, Kauai 96766

Dear Mr. Nakaahiki:

Subject: Rice Camp Affordable Housing Development
Draft Environmental Assessment (DEA)
TMK: (4) 3-6-004:009 and (4) 3- 6-009:001

DOT previously commented on the subject case during the early consultation period in its letter STP 8.1127 dated February 21, 2013 (see Appendix A).

While DOT does not anticipate the subject project will have any significant, adverse impacts to its transportation facilties, should the Highways Division, Kauai District Engineer determine that unexpected traffic problems occur on State highways that can be attributed to the project, the County of Kauai shall be required to mitigate those problems, at no cost to the State.

DOT appreciates the opportunity to provide comments. If there are any questions, please contact Mr. Garrett Smith of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

c: Colette Sakoda, Environet, Inc.

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

August 6, 2013

Glenn M. Okimoto, Ph.D.
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813

Dear Mr. Okimoto:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated July 9, 2013, and have noted your comment that should unexpected traffic problems occur on State highways, the problems shall be mitigated at no cost to the State. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

OFFICE OF PLANNING
STATE OF HAWAII

NEIL ABERCROMBIE
GOVERNOR

JESSE K. SOUKI
DIRECTOR
OFFICE OF PLANNING

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

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: http://hawaii.gov/dbedt/op/

Ref. No. P-14043

July 9, 2013

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Dear Ms. Sakoda:

Subject: Draft Environmental Assessment for the Kauai County Housing Agency Affordable Housing Project for Rice Camp Parcels, Lihue, Kauai, Hawaii Tax Map Key: (4) 3-6-004: 009 and (4) 3-6-009: 001

Thank you for the opportunity to provide comments on the Draft Environmental Assessment (Draft EA) for the Affordable Housing Project for Rice Camp Parcels by the Kauai Housing Agency.

We have reviewed the documents you submitted to us via letter dated May 29, 2013, and have the following comments to offer:

1. The letter you reference, P-10520 dated June 24, 2004, states, "Applicants for HUD assistance are no longer required to obtain CZM federal consistency approval for HUD assisted activities." However it goes on to state, "Other CZM regulations such as the Special Management Area and Shoreline Setback provisions which are administered by the Counties, are still valid and may apply to HUD assisted projects." The Draft EA incorrectly assumes that this project is exempt from Coastal Zone Management (CZM) regulations. This Housing and Urban Development (HUD) policy notice applied only to federal consistency issues which are managed by our office. This project must still meet CZM guidelines found in Chapter 205A of the Hawaii Revised Statutes (HRS). Please consult with the County of Kauai Planning Department.

2. The entire state is defined to be within the Coastal Zone Management Area, see HRS §205A-1 (definition of "coastal zone management area"). The Final Environmental Assessment (Final EA) should include a discussion of the proposed project's ability to meet the objectives and policies set forth in HRS §205A-2.

3. The construction project may have nonpoint pollution impacts on coastal waters. We invite the applicant to review the Hawaii Watershed Guidance, which provides a summary and links to management measures that may be implemented to minimize coastal nonpoint pollution impact. This Guidance can be viewed or downloaded from the Office of Planning website at http://files.hawaii.gov/dbedt/op/czm/initiative/nonpoint/HI Watershed Guidance Final.pdf.

The Final EA should include the CZM Act, HRS Chapter 205A, in the list of "Relationship to Land Use Plans, Policies, and Controls."

If you have any questions regarding this comment letter, please contact Leo Asuncion or Josh Hekekia of our Hawaii CZM Program at 587-2846.

Sincerely,

Jesse K. Souki
Director

c: Mr. Klayford Nakaahi, Kauai County Housing Agency

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

August 1, 2013

Mr. Jesse K. Souki, Director
State of Hawai'i, Office of Planning
P.O. Box 2359
Honolulu, Hawai'i 96804

Dear Mr. Souki:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated July 9, 2013, and acknowledge that the entire site is defined to be within the Coastal Zone Management Area. The Final EA will include a discussion of the proposed project's consistency with the objectives and policies set forth in HRS §205A-2.

We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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UNIVERSITY of HAWAI'I®
MĀNOA

Water Resources Research Center

COUNTY OF KAUAI
HOUSING AGENCY

13 JUL 10 P12:57

July 01, 2013
NC: 2013-05-29

Mr. Klayford Nakaahiki
Kauai County Housing Agency
Piikoi Building, 4444 Rice Street, Suite 330
Lihue, HI, 96766

Ms. Colette Sakoda
Environet, Inc.
1286 Queen Emma Street
Honolulu, HI 96813

Draft Environmental Assessment
Rice Camp Affordable Housing Development
Lihue, Kauai

Thank you for your letters dated May 29, 2013 inviting the Water Resources Research Center and the Environmental Center to comment on the Draft Environmental Assessment for the Rice Camp Affordable Housing Development in Lihue, Kauai. We will not comment at this time due to resource constraints; however we look forward to reading the Final Environmental Assessment when it becomes available.

Please be advised that the Environmental Center has merged with the Water Resources Research Center and no longer exists as an officially named unit within the university. Therefore, please address future correspondence to:

Water Resources Research Center
University of Hawaii at Manoa
2540 Dole Street, Holmes 283
Honolulu, HI 96822
ATTN: Environmental Assessment & Protection Division

Sincerely,

David Penn
Assistant Specialist

cc: Sara Bolduc

2540 Dole Street, Holmes Hall 283
Honolulu, Hawai'i 96822
Telephone: (808) 956-7847
Fax: (808) 956-5044
An Equal Opportunity/Affirmative Action Institution

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. David Penn
University of Hawai'i at Manoa
Water Resources Research Center
2540 Dole Street, Holmes 283
Honolulu, Hawai'i 96822
ATTN: Environmental Assessment & Protection Division

Dear Mr. Penn:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated July 1, 2013, and acknowledge your comment that the Water Resources Research Center has no comment at this time due to resource constraints. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Michael A. Dahilig
Director of Planning

Dee M. Crowell
Deputy Director of Planning

PLANNING DEPARTMENT
County of Kaua'i, State of Hawai'i
4444 Rice Street, Suite A-473, Līhu'e, Hawai'i 96766
TEL (808) 241-4050 FAX (808) 241-6699

JUL 15 2013

Collette Sakoda
c/o ENVIRONET, INC.
1286 Queen Emma Street
Honolulu, Hawai'i 96813

Subject: DRAFT Environmental Assess Review
Proposed 60-unit affordable housing project
COUNTY OF KAUA'I HOUSING AGENCY, Applicant
Tax Map Keys: (4) 3-6-004:009 & 3-6-009:001
Līhu'e, Kaua'i

Thank you for the opportunity to review the preliminary application referenced above and based on the information provided, the department has no objections with the proposed development.

The project is situated within the Līhu'e Town Core Urban Design District and will be subject to the development standards contained in County Ordinance No. 894. Furthermore, the project is located within the Special Planning Area "D" (aka. Rice Street Neighborhood Design District) and is regarded as a permissible use within this zoning district.

Should you have further questions regarding this matter, please contact Dale A. Cua of my staff at 808.241.4050. Aloha!

MICHAEL A. DAHILIG
Director of Planning

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Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

August 1, 2013

Mr. Michael A. Dahilig, Director of Planning
County of Kaua'i
Planning Department
4444 Rice Street, Suite A-473
Lihu'e, Kaua'i, Hawai'i 96766

Dear Mr. Dahilig:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated July 15, 2013 and acknowledge that the County of Kaua'i Planning Department has no objections to the proposed development.

We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Larry Dill, P.E.
County Engineer

Lyle Tabata
Deputy County Engineer

DEPARTMENT OF PUBLIC WORKS
County of Kaua'i, State of Hawai'i
4444 Rice Street, Suite 275, Līhu'e, Hawai'i 96766
TEL (808) 241-4992 FAX (808) 241-6604

July 11, 2013

Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawai'i 96813
Attention: Ms. Collete Sakoda

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT AND ENVIRONMENTAL REVIEW RECORD, KAUA'I COUNTY HOUSING AGENCY, AFFORDABLE HOUSING PROJECT FOR RICE CAMP RARCELS, TMK: 3-6-004:009 & TMK: 3-6-009:001 **PW 05.13.182 & PW 06.13.014**

Dear Ms. Sakoda,

We reviewed the subject Draft Environmental Assessment and Environmental Review Record (DEA/ERR) for the Rice Camp Affordable Housing Project. We offer the following comments:

1. **Section 3.1.4, Natural Hazards, Earthquakes, and Tsunamis:** As noted in the DEA/ERR, the subject parcels are located in Zone X, based on Panel No. 326 F of the Flood Insurance Rate Maps (FIRM) dated November 26, 2010. Zone X designates the areas which are located outside of the 1% annual chance flood (100-years) flood. As such, we have no flood requirements for new structures located in Zone X. However, there is an existing unlined tunnel that traverses through the property from Rice Street, Malama Street and Hoala Street. The drainage tunnel outlets in the vicinity of the old railroad tracks on TMK: 3-6-004-009. There is an existing catch basin on Rice Street that intercepts the storm flows from Rice Street and discharges the storm flows to the tunnel. We do not recommend buildings, driveways, and parking lot construction over any portion of the tunnel.

2. **Section 3.1.7, Water Resources:** The DEA/ERR states that "a detention basin is planned for the open space of TMK: 4-6-004:009". Detention basins and other storm water facilities **shall** be designed and constructed in accordance with the County's Storm Water Runoff System Manual, July 2001, Ordinance No. 778

3. **Section 3.1.7, Water Resources:** As noted in the DEA/ERR, because the project site is greater than one acre, the DOH will require a National Pollutant Discharge Elimination System (NPDES) permit if the disturbed area is greater than one acre.

4. **Section 2.12.5, Traffic Circulation:**
   - A Traffic Impact Analysis Report (TIAR) **must** be provided to identify the traffic impacts with additional traffic generated by the development. The DEA/ERR needs to discuss measures for mitigating the impact of any significant impacts due to the additional traffic as a result of the development.
   - While we acknowledge that the DEA/ERR has incorporated the Department of Public Work's pre-assessment consultation comment on installing curbs, gutters, and sidewalks into the DEA/ERR, the comment has been inserted verbatim and there is no discussion on the comment.
   - Additionally, the proposed roadway shoulder treatments needs to be placed under the "preferred alternative" rather than "existing condition".

5. **Section 3.2.10, Infrastructure and Utilities:** While we acknowledge that the DEA/ERR has been incorporated the Department of Public Works' pre-assessment consultation comment on "existing unlined tunnels", the comment is inserted verbatim and there is no discussion on the comment. Discussion needs to be provided.

6. Section 4.5, Necessary Permits and Approvals:
   - Grading and grubbing permits for this project are not required. This project can be exempted from the Sediment and Erosion Control Ordinance No. 808, since the proposed grading is located within a self-contained Government Controlled Area. However, we expect Best Management Practices (BMP's) to be provided at all times to the maximum extent practicable to prevent damage by sedimentation, erosion or dust to streams, watercourses, natural areas and the property of others. However, we expect the Housing Agency to monitor the BMP's and grading activities.
   - A separate grading permit may be required for the disposal site receiving the excess wasted excavated material or for the borrow site. The disposal site and borrow site **shall** comply with Ordinance No. 808 known as the County's Sediment and Erosion Control Ordinance;.
   - A Driveway Approach Permit is required for a driveway connection with Malama Street.
   - A Road Permit is required for work within County right of ways. Our County records show we have a sewer easement "S-10" for construction maintenance, etc. of facilities within Hoala Street right of way from William H. Rice Ltd. We presume the roadway owner is William H. Rice Ltd.
   - We have no records on file regarding the tunnel easement ownership.

Thank you for the opportunity to review and provided our comments on the Draft

Environmental Assessment. We wish to remain on your mailing list in receiving a copy of the Final Environmental Assessment. If you have any questions, or need additional information, please feel free to contact Stanford Iwamoto, Engineering Division at (808) 241-4896 or by email at siwamoto@kauai.gov .

Sincerely,

WALLACE KUDO, P.E.
Chief, Engineering Division

SI/WK
Copies to: DPW – Surveying & Mapping Section
DPW – Permitting
County Engineer
Planning Department
County of Kaua`ii, Housing Agency

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

August 1, 2013

Mr. Wallace Kudo, P.E.
County of Kaua'i
Department of Public Works
4444 Rice Street, Suite 275
Lihu'e, Kaua'i, Hawai'i 96766

Dear Mr. Kudo:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated July 11, 2013 and acknowledge that there are no flood requirements for new structures located in the project area.

Engineering design details including installation of curbs, gutters and sidewalks, as well as possible treatment of existing unlined tunnels will be available in the developer's construction plans during the building permit review phase. Additionally, your comments regarding necessary permits and approvals are noted, and the EA has been revised and updated to reflect DPW's detailed information.

A Traffic Impact Analysis is not being prepared for this project primarily because it is a senior residential development with a minor increase in traffic volume anticipated. The Rice Camp Parcels project is consistent with the goals of the Lihue Town Core Urban Design Plan adopted in March 2010 which envisions the Rice Street neighborhood as creating inviting, walk able environments in the Lihue Town Core.

We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

Department of Water
County of Kaua'i

Water has no substitute.....Conserve it

June 26, 2013

UID #6099

Mr. Klayford Nakaahiki
Kauai County Housing Agency
4444 Rice Street, Suite 330
Lihue, HI 96766

Dear Mr. Nakaahiki:

Subject: Draft Environmental Assessment: Kauai County Housing Agency for the Development of Affordable Housing at Rice Camp Parcels, TMK: 3-6-04:009 and TMK: 3-6-09:001, Lihue, Kauai, Hawaii

This is in regard to a letter that we received from Kamuela Cobb-Adams (Housing Director) dated May 29, 2013. We have no objections to the proposed Draft Environmental Assessment. The following are our comments to the subject Draft Environmental Assessment for Kauai County Housing Agency's development of Rice Camp Parcels.

Water service will be limited to the existing water meters serving this parcel. Any actual subdivision or development of this area will be dependent on the adequacy of the source, storage, and transmission facilities existing at that time. At the present time, the existing storage and transmission facilities are adequate. The existing source is not adequate for the total proposed project which included an 84 unit low-cost elderly housing resident development.

Prior to the Department of Water (DOW) recommending building permit or water service approval, the applicant will be required to:

1. Submit a formal request for water service. The applicant shall describe the proposed water meter use. The applicant shall submit detailed water demand calculations, along with the proposed water meter size, to the DOW for review and approval. DOW conditions for approval may change based on the approved water demands and use.
2. Prepare and receive DOW's approval of construction drawings for the necessary water system facilities and construct said facilities. These facilities shall include but not be limited to:
   a) The domestic service connection(s).
   b) The fire service connection(s), if applicable.
   c) The interior plumbing plans with the appropriate backflow prevention device for proposed and existing water meter(s).
   d) Additional source facilities, if applicable.
3. Pay the applicable charges in effect at the time of payment to the DOW. At the present time, these charges include the Facilities Reserve Charge (FRC) which is based on $4,600 per 5/8-inch water meter/unit or the FRC based on the approved water meter size, whichever amount is greater.
4. FRC offsets may apply for source, storage, and transmission facilities that qualify for offsets, in accordance with the DOW Rules and Regulations.

5. Receive a "Certification of Completion" notice for the construction of necessary water system facilities from the DOW.

If you have any questions concerning the construction drawings, please contact Mr. Keith Aoki at (808) 245-5411. For questions concerning the Certification of Completion, please contact Mr. Dustin Moises at (808) 245-5459. For other questions, please contact Mr. Edward Doi at (808) 245-5417.

Sincerely,

Gregg Fujikawa
Chief of Water Resources and Planning Division

ED:loo
3-6-04-009 & 3-6-09-001 T-15041, Lihue, Cobb-Adams

c: Collette Sakoda, Environet, Inc.

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Mr. Gregg Fujikawa
County of Kaua'i
Department of Water
4398 Pua Loke St.
P.O. Box 1706
Lihu'e, Kaua'i, Hawai'i 96766

Dear Mr. Fujikawa:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your letter dated June 26, 2013, and acknowledge that the County of Kaua'i Department of Water has no objections to the project and appreciate your provision of the applicant requirements prior to the Department of Water recommending building permit or water service approval. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

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Dear Colette

After review of the environmental assessment of the Rice Camp parcels for elderly housing, the Kaua‘i Fire Department has just one comment so far.

The cumulative effect of this new housing project will put a strain on our resources for emergency response.

If you have any questions, please call.

Daryl Date

Fire Prevention Captain
Kaua‘i Fire Department
4444 Rice St., Suite 315
Līhu‘e, HI 96766
Ph. 808-241-4982
Cell: 808-645-6353
Fax: 808-241-6508

Bernard P. Carvalho, Jr.
Mayor

Gary K. Heu
Managing Director

Kamuela Cobb-Adams
Housing Director

KAUA'I COUNTY HOUSING AGENCY
County of Kaua'i, State of Hawai'i
Pi'ikoi Building 4444 Rice Street Suite 330 Līhu'e Hawai'i 96766
TEL (808) 241-4444 FAX (808) 241-5118

July 15, 2013

Daryl Date, Fire Prevention Captain
Kaua'i Fire Department
4444 Rice St., Suite 315
Lihu'e, Kaua'i, Hawai'i 96766

Dear Captain Date:

Subject: Draft Environmental Assessment for the Kaua'i County Housing Agency, Affordable Housing Project for Rice Camp Parcels, Lihu'e, Kaua'i, Hawai'i, TMKs (4) 3-6-004:009 and (4) 3-6-009:001

Thank you for your participation in the Environmental Assessment review process. We have received your electronic letter dated June 20, 2013, and have noted your concern that the cumulative effect of the proposed housing project will put a strain on the Kaua'i Fire Department resources for emergency response. We appreciate your response and look forward to working with you in the future.

Sincerely yours,

Kamuela Cobb-Adams
Housing Director

cc: Colette Sakoda, Environet, Inc.

APPENDIX B

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT,

DATED OCTOBER 21, 2011

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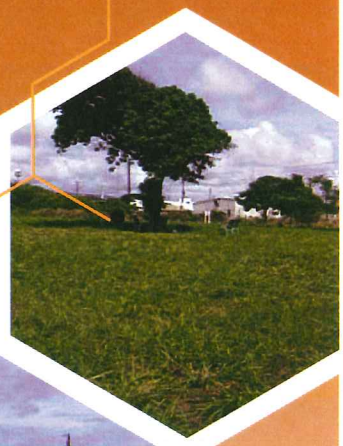
PHASE 1: ENVIRONMENTAL SITE ASSESSMENT

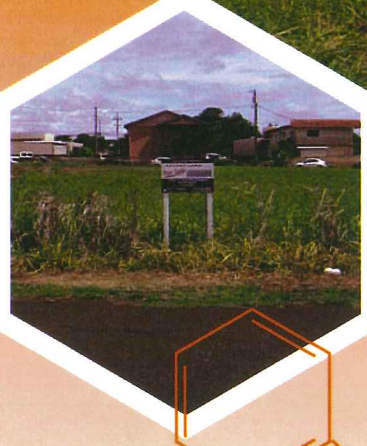
Westridge Properties
TMKs: (4) 3-6-004: 009
(4) 3-6-009: 001

Lihue, Kaua'i, Hawai'i

Prepared for

Kaua'i County Housing Authority
4444 Rice Street
Lihue, Hawai'i 96766





Prepared by

KIMURA INTERNATIONAL
1600 Kapiolani Blvd., Suite 1610 Honolulu, Hawai'i 96814

October 21, 2011

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

WESTRIDGE PROPERTIES
2940 KALENA STREET
&
4203 MALAMA STREET
LIHUE, KAUAI, HAWAII

TMKS:
(4) 3-6-004: PARCEL 009
&
(4) 3-6-009: PARCEL 001

Prepared For:
COUNTY OF KAUAI
HOUSING AGENCY
4444 Rice Street
Lihue, Hawaii 96766

Prepared By:

KIMURA INTERNATIONAL, INC.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, HI 96814

October 2011

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ACRONYMS

AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
CESQG	Conditionally Exempt Small Quantities Generator
CORRACTS	TSD facility subject to Corrective Action under RCRA
DLNR	Hawai'i State Department of Land and Natural Resources
EDR	Environmental Data Resources, Inc.
EPA/USEPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
FTTS INSP	Federal Insecticide, Fungicide, and Rodenticide Act/TSCA
HDOH	Hawai'i Department of Health
HECO	Hawaiian Electric Company
HWS	State Hazardous Waste Sites
HEER	HDOH, Hazard Evaluation and Emergency Response Office
HMS	Hazardous Materials Survey
LUST	Leaking Underground Storage Tank
LUST	HDOH Leaking Underground Storage Tank Database
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NGPC	Notice of General Permit Coverage
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
PADS	PCB Activity Database System
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery (RCRA) Information System
SARA	Superfund Amendments and Reauthorization Act
SHWB	HDOH, Solid and Hazardous Waste Branch
SHWS	State Hazardous Waste Sites List
SPILLS	HDOH HEER Office State Spills List
TMK	tax map key
TPH	total petroleum hydrocarbons
TSD	treatment, storage and disposal
USDA	United States Department of Agriculture
USGS	U.S. Geological Survey
UST	Underground Storage Tank
UST	HDOH Registered Underground Storage Tanks Database

1.0 CERTIFICATIONS AND LIMITATIONS

The findings and conclusions presented in this report are professional opinions based solely upon limited visual observations of the property and vicinity, the interpretation of historical information and documents available, and interviews with representatives of the current landowner. This report is intended for the use of the Kauai County Housing Authority, exclusively for the property indicated.

Kimura International makes no guarantee or warranty; either expressed or implied, except that our services are consistent with good commercial or customary practices designed to conform to acceptable industry standards. This Phase I ESA was prepared in accordance with the scope and limitations of ASTM Practice E1527-05 for TMKs (4) 3-6-004: Parcel 009 and (4) 3-6-009: Parcel 001. Any exceptions to, or deletions from, this practice are described within the Executive Summary and body of this report.

It is impossible to dismiss absolutely the possibility that parts of the site, or adjacent properties, may be adversely impacted by recognized environmental conditions. There is always a possibility that undisclosed contamination may exist from the improper handling or disposal of hazardous substances or petroleum products at the property. No warranty or representation, either expressed or implied, is included or intended in its proposal, contracts or reports.

Opinions presented in this report apply only to the property as outlined and represents the conditions present at the time of our investigation; they cannot account for site changes that may occur after the completion of the site inspection.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Brandis Ueyama
Environmental Scientist
Kimura International, Inc.

21 October 2011
Date

2.0 EXECUTIVE SUMMARY

This report presents the results of Kimura International's (KI) Phase I Environmental Site Assessment (Phase I ESA), performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E1527-05.

The following summarizes the independent conclusions representing Kimura International's best professional judgment based on available information. Information regarding operational conditions provided by the client or their representatives has been assumed to be correct and complete. The conclusions presented are based on the conditions that existed at the time of the assessment.

The subject properties ("site"), located at 2940 Kalena Street and 4203 Malama Street in Lihue, are contiguous parcels identified by Tax Map Keys (TMKs) (4) 3-6-004: Parcel 009 and (4) 3-6-009: Parcel 001, at an elevation of approximately 180 feet above mean sea level (msl). A map of the parcels is provided in Appendix A, Figure 2. TMK (4) 3-6-004: Parcel 009 is currently vacant land zoned for residential (2.836 acres) and commercial (0.773 acres) use, and covers 3.609 acres. TMK (4) 3-6-009: Parcel 001 is vacant commercial land that covers 1.29 acres. Neighboring parcels are zoned for residential and commercial use. The nearest body of water is Nawiliwili Bay, located approximately 1.11 miles east-southeast of the site.

On October 13, 2011, KI performed a site reconnaissance of the site to identify the use, storage, generation and/or disposal of potentially hazardous materials (including asbestos, lead and polychlorinated biphenyl containing material) and petroleum products.

There was no evidence of gross contamination or illegal dumping of hazardous waste on the project site.

KI reviewed local, state, and federal agency lists and available records to determine if the site and the surrounding properties have any history of hazardous waste generation, contamination, or any general environmental concerns. The site is **not currently** listed on any of the available state or federal environmental databases that were reviewed for this environmental site assessment.

The EDR database search identified several properties within the recommended search radii that appear on various State and Federal environmental lists. These include the Federal Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list, the State Hazardous Waste Sites (SHWS) list, the State Leaking Underground Storage Tank (LUST) list, State Underground Storage Tank (UST) list and the State and Federal Brownfields list. These sites are discussed in detail in Section 5.2. However, none of these sites pose a direct environmental threat to the property.

FINAL RECOMMENDATIONS

Kimura International has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05 for TMKs (4) 3-6-004: Parcel 009 and (4) 3-6-009: Parcel 001 in Lihue on the island of Kauai. Kimura International did not find evidence of gross contamination or illegal dumping of hazardous materials, including suspect asbestos, lead, arsenic or PCB containing materials on either parcel. A historical records review did not identify any environmental threats to the property. A historical title search suggests that homes have been on TMK (4) 3-6-004: Parcel 009 since at least 1920.

In conclusion, Kimura International is confident that no recognized environmental conditions (RECs) presently exist on the property. Therefore, KI believes that no further action is necessary at this time.

However, if excavated and excess soil is generated during construction that must be disposed of at a local landfill, this Phase I ESA may not necessarily satisfy landfill requirements for quantitative analytical characterization of the soil. The owner may still be responsible for such soil characterization, if required by the landfill.

3.0 INTRODUCTION

Kimura International has completed a Phase I ESA of the properties at 2940 Kalena Street and 4203 Malama Street, identified by TMKs (4) 3-6-004: Parcel 009 and (4) 3-6-009: Parcel 001. This Phase I ESA was prepared for the County of Kauai Housing Agency (CKHA). This Phase I ESA was conducted as part of the CKHA's due diligence efforts regarding the potential acquisition of the parcels from Westridge Properties, Inc. for residential purposes.

3.1 PURPOSE

Under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), owners and operators of real estate where there is hazardous substance contamination may be held strictly liable for the costs of cleaning up contamination found on their property. No evidence linking the owner/operator with the placement of the hazardous substances on the property is required.

Congress, in response to pressure from business and academic groups, established the "innocent landowner defense" in the 1986 amendments to CERCLA. These are known as the Superfund Amendments and Reauthorization Act (SARA). To establish innocent landowner status, the landowner "must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial and customary practice in an effort to minimize liability."

In an effort to clarify what constitutes "all appropriate inquiry," the American Society for Testing and Materials (ASTM) has developed a standard that provides specific definition of the steps one should take when conducting a "due diligence" Phase I Environmental Site Assessment (ESA) for commercial real estate. The site assessment documented herein complies with the current ASTM E1527-05 Standard Practice for Environmental Site Assessments.

This investigation was initiated as a requirement regarding the lease of the property. The purpose of the investigation is to identify and evaluate evidence that may indicate any recognized environmental conditions at the site due to past or current management of chemicals or other materials that, if released or not properly controlled, could present a risk to human health or the environment.

3.2 SCOPE OF WORK

The purpose of this Phase I ESA was to identify whether surface or historical evidence indicated that the presence of recognized environmental conditions, as defined by ASTM E1527, may adversely impact the property and whether additional investigation is warranted. This Phase I ESA was conducted using the scope and limitations of ASTM E1527. The information provided is assumed to be correct and complete, unless noted otherwise. The scope of work included the following:

- Summarize general geologic and hydrogeologic conditions onsite based on available literature and professional experience.

- Review historical aerial photographs, information of past ownership, and conduct interviews with knowledgeable persons to evaluate historic land use.

- Conduct a review of local, state, and federal agency lists and available files of reported hazardous waste sites and hazardous substance/petroleum sources and releases. KI queried the Environmental Data Resources, Inc. (EDR) database of federal and state environmental release listings. The EDR database provides results in proximity to the site following American Society for Testing and Materials (ASTM) search distance guidelines, is continually updated, and is considered one of the most comprehensive in the industry.

- Conduct a site reconnaissance visit to evaluate current on-site use/storage of hazardous materials and visual indications that this use may have impacted the site.

- Prepare this report summarizing the findings of the Phase I ESA and present any recommendations for additional site investigation activities and/or corrective actions for the site, if warranted.

4.0 SITE DESCRIPTION

4.1 LOCATION AND DESCRIPTION

The site (TMKs 3-6-004: Parcel 009 and 3-6-009: Parcel 001) consists of approximately 4.899 acres of land in Lihue on the island of Kauai (Appendix A, Figure 1). Both parcels are presently owned by Westridge Properties of San Mateo, California. TMK 3-6-004:009 is 3.609 acres in size, bordered on the east by Hoala Street, on the north by a neighboring parcel and Kalena Street, single family residences to the south, and a watershed area to the west. TMK 3-6-009:001 is 1.29 acres in size and bordered by Hoala Street to the west, Malama Street to the east, the M. Tanaka Hardware store to the north, and single family residences to the south. Both properties are presently vacant and covered with minimally maintained vegetation. Portions of TMK 3-6-009:001 is being used by the Kauai Fire Department for equipment and vehicle storage. A temporary shed has been constructed on the property, immediately across the street from the Lihue Fire Station. Visual observation of the property did not identify evidence of onsite pits, dry wells, or illegal chemical dumping.

4.2 SITE AND VICINITY GENERAL CHARACTERISTICS

4.2.1 SITE TOPOGRAPHY AND DRAINAGE

Topographic map coverage of the site vicinity is provided by the United States Geological Survey, Island of Kauai, Hawaii 7.5-minute Lihue Quadrangle, 1996. The elevation of the subject property is approximately one hundred seventy-seven (177) feet above msl. The site and surrounding properties appeared relatively flat, with a slight discernible gradient from north to south. The nearest body of water is Nawiliwili Bay, located roughly 1.11 miles east-southeast of the site. The groundcover of the site is almost exclusively soil and natural vegetation. Small areas on site were found to contain asphalt paving.

4.2.2 HYDROGEOLOGY

The primary drinking water in the Hawaiian Islands is drawn from basal groundwater. Basal groundwater is formed by rainwater percolating down through the residual soils and permeable volcanic rock. The entire island situated below sea level, except within rift zones of the volcanoes, is saturated with ocean salt water. Freshwater forms a basal lens called the "Ghyben-Herzberg" lens that floats on the salt water. A zone of transition between the fresh groundwater and the ocean salt water occurs due to the constant movement of the interface because of tidal fluctuations, seasonal fluctuations in recharge and discharge, and aquifer development (Macdonald, et al., 1983).

Downward percolation of rainwater may be stopped by impermeable layers such as dense lava flows, alluvial clay layers and volcanic ash. The groundwater then forms a perched or high-level aquifer, which is not in contact with salt water. Recharge of the aquifer occurs in areas of high rainfall, which are the interior mountainous areas. The groundwater flows from the recharge areas to the areas of discharge along the shoreline. Frictional resistance to groundwater flow causes it to pile up within the island until it attains sufficient hydraulic head to overcome friction. Thus, basal groundwater tends to slope toward the shoreline.

The project site resides above the Underground Injection Control (UIC) line for the island of Kauai, indicating that the underlying aquifers are considered drinking water sources. Specifically beneath the site lies a flank basal aquifer that rests on a primary dike basal aquifer. Both aquifers are associated with the Hanamalu Aquifer System, which is a part of the Lihue Aquifer Sector on the island of Kauai. The flank aquifer is classified by Mink and Lau, 1990, with the system identification number 20102111 (21111). This system is described as being an unconfined basal aquifer with flank geology that could potentially be used as a drinking source but is not of ecological importance. This aquifer has a fresh water salinity level (<250 mg/L Cl^-), is irreplaceable, and has a high vulnerability to contamination. The underlying dike aquifer has been given the identification number 20102122 (21112), indicating that it is confined, basal, with dike geology. While this aquifer contains fresh water (<250 mg/L Cl^-) and is irreplaceable, its depth and confinement equates to a moderate vulnerability to contamination.

4.2.3 GEOLOGY

Kauai was formed by the erosional remnants of a single large shield volcano. The shield volcano was built up from the sea floor by thousands of thin flows of basaltic lava. Collapsing of the volcano formed calderas which erupted over time, eventually filling out the remainder of the island. Erosion by waves and streams cut high sea cliffs and deep canyons. Thick soil formed over much of the island (Macdonald, et al., 1983).

The rift zones of the Kauai shield are less clearly marked than those of most Hawaiian volcanoes, and there is a tendency for dikes to radiate in all directions from the summit. Two zones of numerous dikes can be recognized, trending northeastward and west-southwestward (Macdonald, et al., 1983).

4.2.4 SOILS

The soil at the site is mapped as Lihue silty clay, 0 to 8 percent slopes (LhB). The Lihue silty clay consists of soil that is dusky red in the surface layer (12" thick) and dark red or dark reddish-brown in the subsurface layer (48" thick). The substratum is soft, weathered rock. The soil is well-drained and found on the upland areas of Kauai. Acidity is high in the surface soils and slightly acidic to neutral in the subsurface. Permeability is moderately rapid and run-off is slow. The erosion hazard for this soil type is slight. General uses for this type of soil include sugarcane and pineapple cultivation, pasturelands, truck crops, orchards, wildlife habitat, and/or home sites. Natural vegetation consists of Java plum, guava, koa haole, lantana, joee, kikuyu grass, molasses grass, guinea grass and Bermuda grass (USDA, 1972).

5.0 RECORDS REVIEWED

A comprehensive review of historical data for the site was conducted for the purpose of evaluating whether past or current practices (i.e., the use, storage, treatment, generation, and/or disposal of hazardous substances or petroleum products) on-site or at adjacent properties may be of environmental concern. The following sections lists the historical information sources reviewed. They include the Environmental Data Resources, Inc. (EDR) report that describes federal, state, and local lists and available files of reported hazardous substance/petroleum product sources and releases, relevant aerial photographs, and relevant property transaction records.

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

To obtain information concerning recognized environmental conditions at or near the parcels, Kimura International contracted Environmental Data Resources, Inc. (EDR) to conduct an environmental database search. EDR is a company that specializes in the review of public regulatory environmental databases in accordance with ASTM E 1527-05. Lists were reviewed for incidents and releases at the site and at properties within the vicinity, according to or exceeding the ASTM recommended search distances (Table 1). The complete EDR report is located in Appendix B.

Table 1: ASTM Standard Environmental Record Sources and Recommended Search Distances

Environmental Database Sources*	ASTM Standard Search Distances (miles)
Federal NPL site list	
NPL	1.0
Proposed NPL	1.0
NPL Liens	Target Property
Federal Delisted NPL site list	
Delisted NPL	1.0
Federal CERCLIS list	
CERCLIS	0.5
FEDERAL FACILITY	1.0
Federal CERCLIS NFRAP site list	
CERC-NFRAP	0.5
Federal RCRA CORRACTS facilities list	
CORRACTS	1.0
Federal RCRA non-CORRACTS TSD facilities list	
RCRA-TSDF	0.5
Federal RCRA generators list	
RCRA-LQG	0.25
RCRA-SQG	0.25
RCRA-CESQG	0.25
Federal institutional controls/engineering controls registries	

US ENG CONTOLS	0.5
US INST CONTROLS	0.5
Federal ERNS list	
ERNS**	Target Property
State- and tribal- equivalent CERCLIS	
SHWS	1.0
State and tribal landfill and/or solid waste disposal site lists	
SWF/LF	0.5
State and tribal leaking storage tank lists	
LUST	0.5
INDIAN LUST	0.5
State and tribal registered storage tank lists	
UST	0.25
INDIAN UST	0.25
FEMA UST	0.25
State and tribal institutional control/engineering control registries	
ENG CONTROLS	0.5
INST CONTROLS	0.5
State and tribal voluntary cleanup sites	
INDIAN VCP	0.5
VCP	0.5
State and tribal Brownfields sites	
BROWNFIELDS	0.5

*See acronyms list for definitions.

**Hawai'i Department of Health (HDOH) does not typically submit information into the ERNS system. See Section 5.1.5 below for related information that HDOH HEER compiles in lieu of ERNS.

Additional environmental records searched are listed below:

Additional Environmental Records:

- DEBRIS REGION 9 – Torres Martinez Reservation Illegal Dump Site Locations
- ODI – Open Dump Inventory
- INDIAN ODI – Report on the Status of Open Dumps on Indian Lands
- US CDL – Clandestine Drug Labs
- CDL – Clandestine Drug Lab Listing
- US HIST CDL – Nation Clandestine Laboratory Register
- LIENS 2 – CERCLA Lien Information
- LUCIS – Land Use Control Information System
- HMIRS – Hazardous Materials Information Reporting System
- SPILLS – Release Notifications

Other Ascertainable Records:

- RCRA-NonGen – RCRC – Non Generators
- DOT OPS – Incident and Accident Data
- DOD – Department of Defense Sites
- FUDS – Formerly used Defense Sites
- CONSENT – Superfund (CERCLA) Consent Decrees
- ROD – Records of Decisions
- UMTRA – Uranium Mill Tailings Sites
- MINES – Mines Master Index File
- TRIS – Toxic Chemical Release Inventory System
- TSCA – Toxic Substances Control Act
- FTTS – FIFRA/TSCA Tracking System – FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
- HIST FTTS – FIFRA/TSCA Tracking System Administrative Case Listing
- SSTS – Section 7 Tracking Systems
- ICIS – Integrated Compliance Information System
- PADS – PCB Activity Database System
- MLTS – Material Licensing Tracking System
- RADINFO – Radiation Information Database
- FINDS – Facility Index System/Facility Registry System
- RAATS – RCRA Administrative Action Tracking System
- UIC – Underground Injection Wells Listing
- DRYCLEANERS – Permitted Drycleaner Facility Listing
- AIRS – List of Permitted Facilities
- INDIAN RESERV – Indian Reservations
- SCRD DRYCLEANERS – State Coalition for Remediation of Drycleaners Listing
- COAL ASH EPA – Coal Combustion Residues Surface Impoundments List
- FINANCIAL ASSURANCE – Financial Assurance Information Listing
- COAL ASH DOE – Sleam-Electric Plan Operation Data
- PCB TRANSFORMER – PCB Transformer Registration Database

Other Databases:

- Historical Topographic Maps

5.2 RESULTS OF THE DATABASE SEARCH

The target property was not listed in any of the databases searched. However, a number of properties were identified, within the standard search radii, on several database lists. These lists, and sites identified within, are discussed below. Where provided, the elevation of the site where the environmental incident occurred is provided with respect to the target property. Incidents occurring at a higher elevation pose a greater risk of affecting the property as contaminants will generally flow from higher to lower elevations.

5.2.1 FEDERAL CERCLIS

CERCLIS is a Federal database maintaining national information on over 15,000 sites identified as hazardous or potentially hazardous, which may require action. These sites are currently being investigated or an investigation has been completed regarding the release of hazardous substances. The most serious of this list as ranked by the hazardous ranking system are transferred to the NPL. There is one site within a 0.5-mile radius that appears on the Federal CERCLIS. This site is the Lihue Plantation Company, Ltd. located at 2970 Kele Street, approximately 0.424 miles northwest of the site. Records indicate that hazardous material contamination was identified on the property in October of 2000. However, since then, the site has been remediated and received "No Further Remedial Action Planned" (NFRAP) status by the EPA in 2006. Therefore, KI does not believe this property poses an environmental threat to the site.

5.2.2 STATE HAZARDOUS WASTE SITES

The CERCLIS List is a compilation of known or suspected uncontrolled or abandoned hazardous waste sites. These sites either have been investigated or are currently under investigation by the EPA for the release, or threatened release, of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation and ultimately placed on the National Priorities List. The State of Hawai'i does not have a formal "State Superfund" program. Therefore, the State Hazardous Waste Sites (SHWS) are the State of Hawai'i's equivalent to the federal EPA's CERCLIS database. Additionally, because this information is acquired from the State of Hawai'i Hazard Evaluation and Emergency Response office, these sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup that use state funds (state equivalent superfund) are identified along with sites where cleanup is paid for by the potentially responsible parties.

The EDR report identified seven incidents on this list that occurred within a 1 mile radius of the subject property. Three incidents were at an equal or higher elevation with respect to the property. The first occurred at 4444 Rice St., 0.432 miles northwest of the site. The listing documents two gasoline spills by GTE-Hawaiian Tel in 1997. The spills were remediated, and a "No Further Action" (NFA) by the Department of Health in 1999. KI therefore does not expect this incident to impact the property.

The second incident occurred at Gary's Chevron Service Station at 3187 Kuhio Hwy., 0.677 miles north-northwest of the site. The listing was the result of a leaking underground storage tank that was remediated in 2008. The site has received an NFA-Restricted Use by the DOH. Because of the distance of this site to the subject property, KI does not expect this incident to impact the property.

The third incident at occurred at an equal or higher elevation to the site is located at the Koamalu Plantation LLC Condominium, 0.881 miles west-northwest of the property. Presently, the State of Hawaii Department of Health, Office of Hazard Evaluation and Emergency Response is performing an assessment of the property to identify the areas of contamination. However, because of the distance of this site to the subject property, KI does not expect any contamination, if present, from this site to directly impact the target property.

The four remaining incidents identified on the State Hazardous Waste Sites list were at lower elevations with respect to the property, and are therefore highly unlikely to directly impact it. The first identified site is the Lihue Plantation Sugar Mill, located at 2940 Haleko Road, 0.464 miles west-northwest of the target property. This site had several documented releases of hazardous substances and has since been placed on the State Brownfields Site list. The documented releases include spills of used oil, diesel and sodium hydroxide. The site is presently being remediated under the State Brownfields program, and does not pose an immediate threat to the subject property.

The second incident identified occurred at Pacific Machinery, Inc. at 3651 Lala Road, 0.771 miles south-southeast of the subject property. The incident occurred in 2004, and has since received a letter of "No Further Action" from the DOH. Therefore, KI does not consider this site to be a direct threat to the property.

The third listing is Marriott Hotel Services, Inc., located at 3610 Rice Street, 0.848 miles east-southeast of the property. The Marriott site appears on the SHWS list for a sinkhole and sewer main break incident that occurred in 2005. All environmental issues related to this incident have since been remediated, and Marriott has received and NFA from the DOH. Additionally, this site also holds permits for two gas engine generators and two steam boilers. This property does not pose a threat to the subject site.

The final listing found on the SHWS list is identified as the Kauai Marriot Resort and Beach Club (formerly known as the Westin Kauai). In 1988 and 1989, two petroleum releases from this property into Kalapaki Stream were reported. The issue has since been remediated, and the site has received and NFA from the DOH. KI therefore believes that this site does not pose a threat to the subject property.

5.2.3. STATE LUSTS

The DOH maintains a report on leaking underground storage tanks (LUSTs). The report is a comprehensive listing of reported LUSTs in Hawai'i. The subject property was not listed as a LUST facility. However, LUSTs were identified at 7 sites at equal or higher elevations, and at 2 sites at lower elevations were identified within a 0.5 mile search radius to the property. These sites are listed in Table 2.

Table 2. LUST Sites Within 0.5 miles of the Subject Property

Property Listing	Address	Direction/Distance and Elev. from Subject Property
Jack Wada Electric, Inc.	2981 Umi Street	Northwest, 0.298 mi, higher
Kauai Civil Defense	4396 Rice Street	Northwest, 0.341 mi, higher
Lihue Treatment Plant	4396 Rice Street	Northwest, 0.341 mi, higher
Lihue Police Station	3060 Umi Street	North-Northwest, 0.359 mi, higher
Lihue State Office Building	TMK 3-6-005:011	Northwest, 0.390 mi, higher
Lihue Civic Center	4444 Rice Street	Northwest 0.432 mi, higher

Lihue Central Office	4444 Rice Street	Northwest 0.432 mi, higher
Thrifty Rental Car	3120 Oihana Street	East, 0.407 miles, lower
Lihue Base Yard	4040 Halau Street	East, 0.487 miles, lower

All but one of these sites have been remediated and received and NFA from the DOH. An LUST at the former Thrifty Car Rental site at 3120 Oihana Street, 0.407 miles east of the property, was identified in June of 2010, and is presently in the process of being remediated. It does not pose a threat to the subject property. The Waimea Treatment Plant does appear on the EDR report, but it is listed with the wrong address.

5.2.4 STATE USTs

Certain underground storage tanks (USTs) are required to be registered by federal or state regulations. For regulated USTs, notifications must be filed for existing USTs, USTs closed in place, and new USTs. The subject parcel was not identified as a UST facility. There are two registered USTs within a 0.25 mile radius of the property. The first UST is located at the Lihue Fire Station, immediately across the street from TMK 3-6-009: Parcel 001. This tank, installed in 1975, has since been decommissioned and is permanently out of use. The second UST is located at the Lihue Quonset, 4193 Rice Street, 0.134 miles east-northeast of the property. This tank, installed in 1997, is also permanently out of use. Neither tank poses a threat to the subject property.

5.2.5 STATE , TRIBAL AND US BROWNFIELDS SITES

Certain sites that have been found to be contaminated may be eligible for remediation funds through a Cooperative Agreement with the Environmental Protection Agency (EPA). Remediation of these sites is generally performed to clean-up areas of contamination in preparation for property redevelopment. Such properties are known as Brownfields. As mentioned in Section 5.2.2. the old Lihue Sugar Plantation, located at 2940 Haleko Road, 0.464 miles west-northwest of the property, is such as site. As it is presently being remediated, and is at a lower elevation to the target property, KI believes that this property does not pose an immediate environmental threat.

5.3 AERIAL PHOTOGRAPHS AND HISTORIC MAPS SOURCES

Historic aerial photographs of the site were obtained from the R.M. Towill Corporation in Honolulu, Hawaii. Aerial photographs reviewed were of the years 1951, 1969, 1976, 1992, and 1995. An aerial photograph from 2005 was also obtained and reviewed from Google Earth.

In the 1951 and 1969 historic aerial photographs, little change occurs on the subject property and surrounding areas. By 1951, the heart of Lihue has become well established, and small houses can be seen on both TMK parcels. Much of the land to the north of present day Puaole Street is still sugar cane fields. However, in the neighborhood immediately surrounding the subject property appears to be mixed use residential and commercial zones. No environmental threats are observed in these photographs.

In the 1976 aerial photograph, the neighborhood around Hardy Street has become established. The most significant change in the immediate area of the subject property is the construction of the Lihue Fire Station across the street from TMK 3-6-009: Parcel 001. Houses are still visible on both subject parcels.

In the 1992 aerial photograph, TMK 3-6-004: Parcel 009 is in the process of being cleared. Freshly exposed soil can be seen surrounding the remaining houses on the property. By this time, TMK 3-6-009: Parcel 001 has already been cleared of any structures, and vegetation has covered the parcel. No environmental concerns are evident in this photograph.

In 1995, it appears that a few residential structures remain on TMK 3-6-004: Parcel 009, mostly on the west side of the property. Parcel 001 appears the same as it did in 1992. No environmental issues are evident in this image.

Finally, in the 2005 Google aerial, the subject parcels appears much as they do today, where both sites are cleared of any permanent structures. The vegetation on Parcel 001 has been cut and maintained. On Parcel 009, most of the vegetation has been cleared, and only a few parked cars are seen. No environmental issues are evident.

5.4 OWNERSHIP HISTORY INFORMATION

TMK (4) 3-6-009: Parcel 001 and TMK (4) 3-6-004: Parcel 009

A title search, conducted at the State of Hawai'i Bureau of Conveyances (Appendix D), found limited information on both parcels. Both parcels were owned by William Hyde Rice, Ltd. of the Lihue Plantation. Transactions were made between William Hyde Rice, Ltd. and the Lihue Christian Church for portions of TMK 3-6-004: Parcel 009 in the 1970s. A search of the 43rd Edition of the Realty Directory for the Fourth Tax Division, County of Kauai (2009) shows that Westridge Properties of San Mateo, CA are the current owners of both parcels. Also listed in this directory were the existence of 5 apartments and 1 carport on TMK 3-6-004: Parcel 009 dating. The construction of these residences date back to 1920, suggesting the parcel has been used for residential housing for at least the last 92 years. No structures were listed on TMK 3-6-009: Parcel 001, and that it is presently zoned for commercial use.

6.0 SITE RECONNAISSANCE

The goal of any site reconnaissance visit is to visually identify any potential threats to the environment that exist on the property before land transfer takes place. KI personnel conducted a site reconnaissance of the properties on October 13, 2011 to search for the presence of hazardous materials or waste and for evidence of gross contamination. Indicators of contamination were sought out, including discolored soil or paving, visible leaks from equipment, odors, and signs of stressed vegetation. Additionally, a visual survey of the adjacent properties from public thoroughfares was also conducted.

No sampling was performed during this site reconnaissance. The following observations describe the condition of the site *at the time of the site reconnaissance*. KI cannot ensure that site conditions have not changed since.

6.1 OBSERVATIONS AT TMK 3-6-004: PARCEL 009

TMK 3-6-004: Parcel 009, also known as 2914 Kalena Street, covers 3.609 acres in Lihue town. The parcel is bordered to the west by Hoala Street, and to the north by Kalena Street, and is located in a mixed residential-commercial area. Immediately south of the parcel are single family residences, and to the west is a large watershed area.

Access to the site was granted by Mr. Gary Mackler, representative of the County of Kauai Housing Agency. At the time of the survey, KI personnel found the property to be vacant and devoid of any permanent structures. The site appeared to be maintained, as it was not overgrown, and all areas were easily accessible on foot.

An asphalt driveway extends from Kalena Street to a small paved area on the north border of the parcel, upon which two towing trailers were parked. KI personnel also observed a short section of badly corroded pipe partially buried towards the southern end of the property. The pipe appeared abandoned, and was most likely used to supply water access to homes formerly on the site.

At the time of the survey, KI personnel found no evidence of dumping of hazardous material or waste. No staining of the soil, odors or signs of stressed vegetation was observed. Therefore, gross contamination of the property is not suspected. Additionally, no asbestos, lead, or arsenic containing materials were observed on the property.

Two pole mounted transformers were identified on the eastern border of the property. Both transformers were in good condition. The EDR database search did not identify any PCB containing transformers in the area.

6.2 FINDINGS ON TMK 3-6-009: PARCEL 001

TMK 3-6-009: Parcel 001, located at 4203 Malama Street, is a 1.29 acre parcel, bordered on the west by Hoala Street and on the east by Malama Street. Single family residences are

immediately south of the property and the M. Tanaka Hardware store is immediately to the north.

At the time of the site visit, the property was mostly vacant and covered with minimally maintained vegetation. All areas of the site were accessible on foot. An area towards the middle of the property was being used by the Kauai Fire Department to store equipment and old vehicles. Their property included two Matson containers, several vehicles, and a large temporary shed that protected trailers and equipment. The foundation of the shed was graded and covered with recycled asphalt and gravel. A small pile of dirt, consistent with the soil found on the rest of the property was observed next to the shed. It is presumed that this dirt originated from the grading activities for the erection of the shed. Two empty 55-gallon drums of motor oil were also found on the property. The drums were in good condition, and the ground beneath them was devoid of any staining. Photographs of these items can be found in Appendix C.

There was no evidence of dumping of hazardous material or waste. No staining of the soil or odors was observed; therefore gross contamination of the property is not suspected. Additionally, no asbestos, lead, or arsenic containing materials were observed on the property.

Four pole mounted transformers were observed on Malama Street. All four of the transformers were in excellent condition. The EDR database search did not identify any PCB containing transformers in the area.

7.0 INTERVIEWS

Interviews with the following individuals were conducted to obtain information about the properties' history, use and the surrounding area.

Mr. Butch Keahiolalo, Firefighter, Kauai Fire Department
KI personnel met with Mr. Butch Keahiolalo, a firefighter with the Kauai Fire Department (KFD), on October 13, 2011. Mr. Keahiolalo verified that all equipment present on TMK (4) 3-6-004: Parcel 009 belonged to the Lihue Fire Station located immediately across Malama Street. Mr. Keahiolalo conveyed to KI personnel that the Matson containers were being used for the storage of fire equipment, bags and hoses, and that they did not contain any chemicals. Mr. Keahiolalo also conveyed that the temporary shed housed trailers and additional fire equipment. Mr. Keahiolalo told KI personnel that no vehicle maintenance was performed on that property. All firefighter trucks and vehicles are maintained off site at the Department of Transportation. Mr. Keahiolalo was also able to convey to KI personnel that the foundation of the temporary shed was recycled asphalt and gravel. Mr. Keahiolalo was not sure where the small pile of dirt observed on the property originated from, but he was confident that it was not illegally dumped on the property, as the gates to the property are always locked when it is not being used by KFD.

Mr. Steve Smith, Owner Representative for Westridge Properties
Mr. Steve Smith is the owner representative for Westridge Properties, located in San Mateo, California. He has served in this capacity for the past 5 years. KI personnel provided Mr. Smith with a questionnaire (Appendix F) focusing on the environmental history of both parcels. Through this questionnaire, Mr. Smith conveyed the following information:

- Mr. Smith was not aware of any environmental cleanup liens being held against either property. He is also unaware of any Action Use Limitations (AULs) imposed upon the site.

- Mr. Smith does not believe that any chemicals or other hazardous materials are being stored on site, nor is he aware of any chemical or hazardous material releases or spills on either property.

- Mr. Smith does not believe that any environmental cleanups have taken place on either property.

- Mr. Smith is not aware of any aboveground or underground storage tanks (AST or USTs) cesspools or sumps on either property.

- Mr. Smith does not believe that either site have histories of flooding.

- Mr. Smith is unaware of any grading activities that have imported dirt to the properties, nor is he aware of any other environmental issues on neighboring properties.

8.0 CONCLUSIONS & RECOMMENDATIONS

Kimura International has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05 for TMKs (4) 3-6-004: Parcel 009 and (4) 3-6-009: Parcel 001 in Lihue on the island of Kauai. Kimura International did not find evidence of gross contamination or illegal dumping of hazardous materials, including suspect asbestos, lead, arsenic or PCB containing materials on either parcel. A historical records review did not identify any environmental threats to the property. A historical title search suggests that homes have been on TMK (4) 3-6-004: Parcel 009 since at least 1920.

In conclusion, Kimura International is confident that no recognized environmental conditions (RECs) presently exist on the property. Therefore, KI believes that no further action is necessary at this time.

However, if excavated and excess soil is generated during construction that must be disposed of at a local landfill, this Phase I ESA may not necessarily satisfy landfill requirements for quantitative analytical characterization of the soil. The owner may still be responsible for such soil characterization, if required by the landfill.

9.0 QUALIFICATIONS

Mr. Ueyama has a Bachelor of Science degree in Environmental Science from the University of Hawaii. He has 8 years experience in environmental consulting and industrial hygiene. He has been with Kimura International for 5 years and during that time has performed, prepared, and managed numerous Phase I and II ESAs, site investigations, and hazardous materials surveys.

10.0 REFERENCES

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- Environmental Protection Agency, "EPA Superfund Record of Decision, Schofield Barracks, EPA ID: HI7210090026, OU 04, Schofield, Hawaii." September 26, 1996.
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- Environmental Data Resources, Inc., "The EDR Radius Map with GeoCheck," Report Inquiry No. 2532274.2s, July 2, 2009.
- Macdonald, G.A., A.T. Abbot, and F.L. Peterson, "Volcanoes and the Sea." University of Hawai'i Press, 1983.
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- State of Hawai'i Department of Health, Solid and Hazardous Waste Branch, UST/LUST Records.
- State of Hawai'i Department of Health, Solid and Hazardous Waste Branch, RCRA Facility Records.
- State of Hawai'i Department of Health, Underground Storage Tank Program, "Technical Guidance Manual for Underground Storage Tank Closure & Release Response." March 2000.
- Tetra Tech, Inc. "Final Environmental Impact Statement, Transformation of the 2nd Brigade, 25th Infantry Division (L) to a Stryker Brigade Combat Team in Hawaii. Vol. 1" May 2004.
- U.S. Department of Agriculture Soil Conservation Service, "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawai'i." 1972.
- U.S. Department of Interior Geological Survey, "Honolulu Quadrangle, 7.5 Minute Series (Topographic Map)," 1998.

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Appendix A

FIGURES

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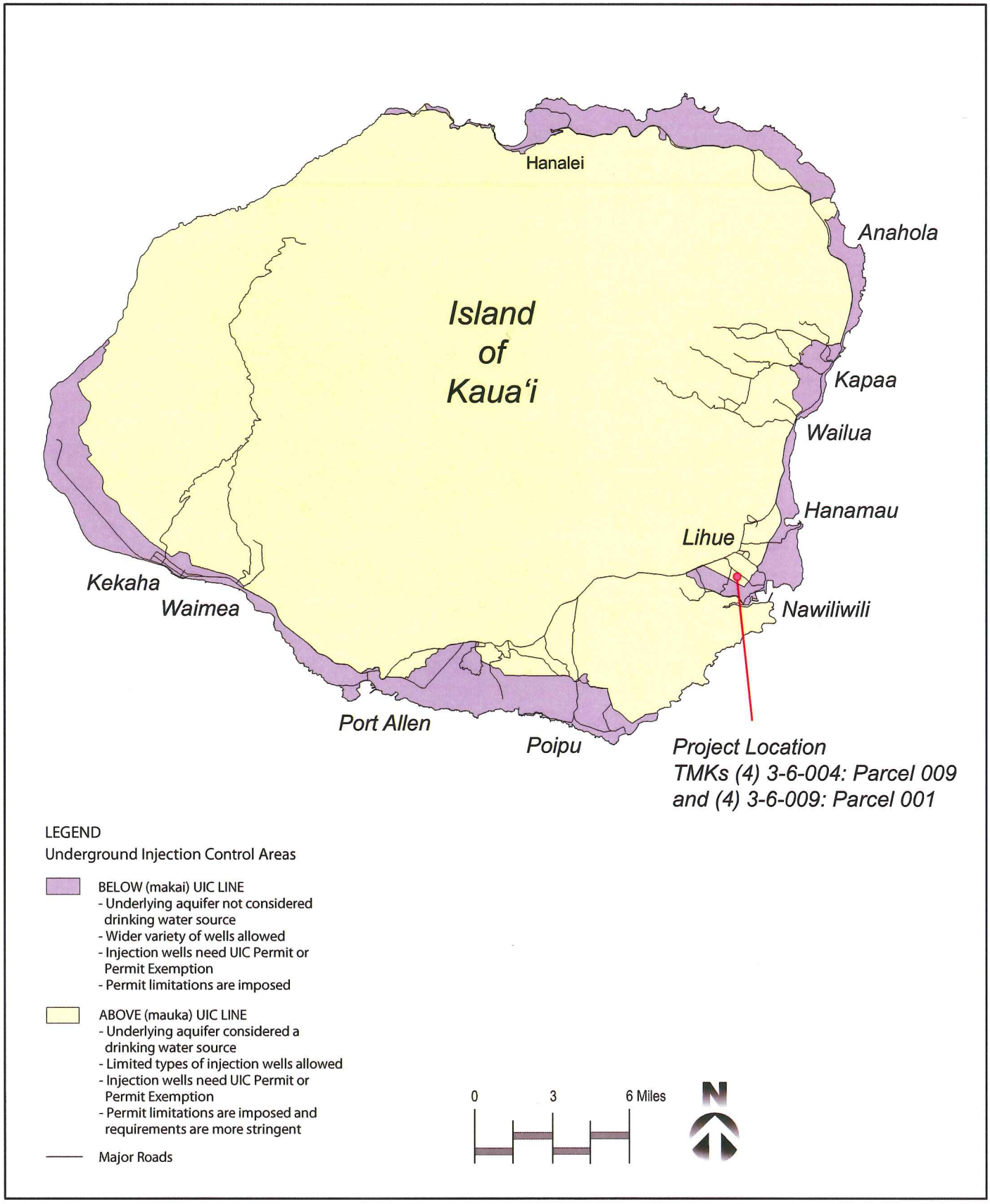
Figure 1
Project Site
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kaua'i, Hawai'i

KIMURA INTERNATIONAL



Source: Department of Health EGIS 9/99

Figure 2
UIC
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kaua'i, Hawai'i

KIMURA INTERNATIONAL

Appendix B

EDR RADIUS MAP W/ GEOCHECK

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KHAC Kalena Street
2914 Kalena Street
Lihue, HI 96766

Inquiry Number: 3169378.2s
September 20, 2011

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Entire report available upon request.

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Appendix C

PHOTOGRAPHIC DOCUMENTATION

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TMK (4) 3-6-004: Parcel 009

A: At the time of the site reconnaissance, KI personnel found this parcel to be vacant and devoid of permanent structures. **B:** An abandoned pipe, presumably for the old residences that were once on the property, was found on the southwest corner of the property. **C:** The remnants of asphalt paving were found in various locations on the property. **D:** A view of the property from the southwest, facing north, along the western border.

TMK (4) 3-6-009: Parcel 001

A: A view of TMK (4) 3-6-009: Parcel 001 facing east from Hoala Street. **B:** At the time of the survey, a temporary storage shelter had been constructed by the Kauai Fire Department to store equipment and vehicles. **C:** The area beneath the shelter had been graded and covered with gravel and recycled asphalt. **D:** Two 55-gallon drums were found north of the shelter. Both had contained motor oil, but were empty and the time of the survey. No staining of the ground beneath the drums was observed. **E:** Small pile of dirt was found to the northwest of the shelter. The dirt was consistent with the rest of the soil on the property, and appeared to be from the erection of the shelter.

Appendix D

BUREAU OF CONVEYANCES

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JHH	6/6/50	Kalapaki, Lihue Por LCAw 7713 Ap 2 Pt 1 & por Gr 250 Deed	67'50	3 6 04 9
1			8.61 ac	William Hyde Rice Ltd
2	to 3609-10 5488 Ø or 0.16 ac		8.45 ac	do
3	TMB 363'56(3604-rd),ryt, 8/28/56 D:Wm H Rice,Ltd to T.H. 5887 Ø-or 0.135 ac drpd into Kress St. Bk 3149 p 126, Cons$1. RS none, 7/25/56, 8/8/56. (des) F/D:3604-9, area & bdy, por gr 250 etc.		8.315 Ac	do
4	TMB 126'57(3604-13),ryt, 2/16/57 D:43,973 Ø or 1.009 ac to parcel 13(5) Bk 3260 p 460, F/D:3604-9, area & bdy, pors LCAw 7713:2 Part 2 & Gr 250.		7.306 Ac	do
5	~~TMB 1161'70-71(3604-9 & 13)WD/en 3/16/71~~ ~~To: 3604-13(6) (608ft or 0.014 Ac)~~ Exch/D: ~~Lihue Christian Church~~ ~~To: Wm Hyde Rice Ltd Bk 7411 p 271~~ SCT$00 ~~Cons: Exchange 2/11/71~~ 2/17/71 DES ~~F/D: 3604-9; Subarea & bdry;~~ ~~(608ft or 0.014 Ac) & (7.292 Ac)~~		do	do
5	TMB 1161'70-71(3604-9 & 13)WD/en 3/16/71 To: 3609-13(6) (608ft or 0.014 Ac) From 3604-13(6) (608ft or 0.014 Ac) Exch/D: Lihue Christian Church To: Wm Hyde Rice Ltd Bk 7411 p 271 SCT$00 Cons: Exchange 2/11/71 2/17/71 DES F/D: 3604-9; Subarea & bdry; (608ft or 0.014 Ac) & (7.292 Ac)		7.306 Ac (Cont)	do

12
13
14
18

STATE OF HAWAII — DEPARTMENT OF TAXATION
PROPERTY ASSESSMENT DIVISION
TAX MAPS BRANCH

FORM P-19 HISTORY SHEET

TAX MAPS BRANCH HISTORY SHEET

DATE: 11/1/72

LOCATION: Kalapaki, Lihue

TITLE:

Z	S	PLAT	PAR	DIV.
3	3	04	2	

NO.	GRANTOR, ETC.	AREA OF PARCEL	GRANTEE, ETC.
	Page 2		
5	As shown on tax map	7.305 Ac	William Ryde Rice Ltd
6	TMB M-58'72-73 MD/en 11/1/72		
	R/S: To 3607-22(2) 2.021 Ac	5.285 Ac	do
	F/D: Area & bdry		

NOTE: INFORMATION ON THIS SHEET IS SUBJECT TO CHANGE

2
3
4
7

SOURCE	LOCATION	ZONE	SEC	PLAT	PARCEL
BY JHH DATE 1/14/48		3	6	09	1

1096 / ROUTE SLIP 1047

NEW PLAT 09

TAX MAPS	
JHH	✓
TAX OFFICE	
	✓
TRACING	
	✓
ROUTE SLIP	
	✓
SKETCH	
	✓
ADJOINING PARCELS	
	✓
F.D.	LEDGER
RETURN	PLATE

This parcel was formerly 3-6-04-2.

Being lot 7 of File Plan 80 Block C.

FORMER KEY				CHANGE	FINAL DATA AS SHOWN ON TAX MAPS AS OF 1/14/48						
ZONE	SEC.	PLAT	PARCEL		ZONE	SEC.	PLAT	PARCEL	AREA	OWNER	INT.
3	6	04	2	new	3	6	09	1	8000 Ø	Wm. Hyde Rice Ltd	
3	6	04	2	Dropped	(See R/S TMB 1088 '47)						

0
2
3
2

SOURCE	LOCATION	ZONE	SEC	PLAT	PARCEL
BY AMY DATE 1/14/48		3	6	04	2

1088

ROUTE SLIP

TAX MAPS	
JHH	✓
TAX OFFICE	
	✓
TRACING	
	✓
ROUTE SLIP	
	✓
SKETCH	
	✓
ADJOINING PARCELS	
	✓
F.B.	LEDGER
RETURN	PLATE

3-6-04-2 is now dropped and carried on now plat 09 under parcel 1.

FORMER KEY				CHANGE	FINAL DATA AS SHOWN ON TAX MAPS AS OF 1/14/48						
ZONE	SEC	PLAT	PARCEL		ZONE	SEC	PLAT	PARCEL	AREA	OWNER	INT.
3	6	04	2	dropped	see	new	plat	09	parcel 1		

Appendix E

AERIAL PHOTOGRAPHS

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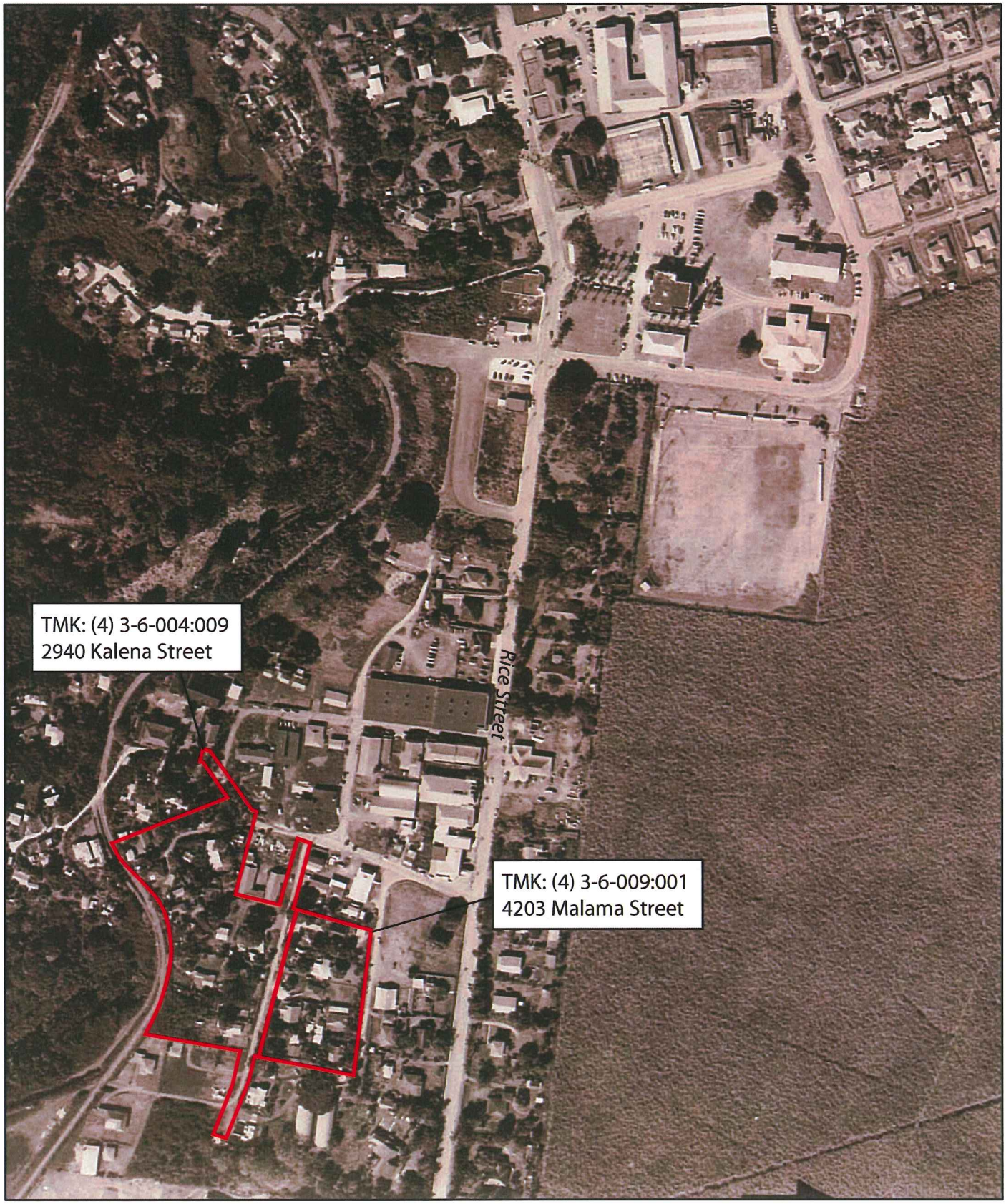

Image Date: January 19, 1951

KIMURA INTERNATIONAL

NORTH

Historic Aerial Photos
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kauai, Hawaii

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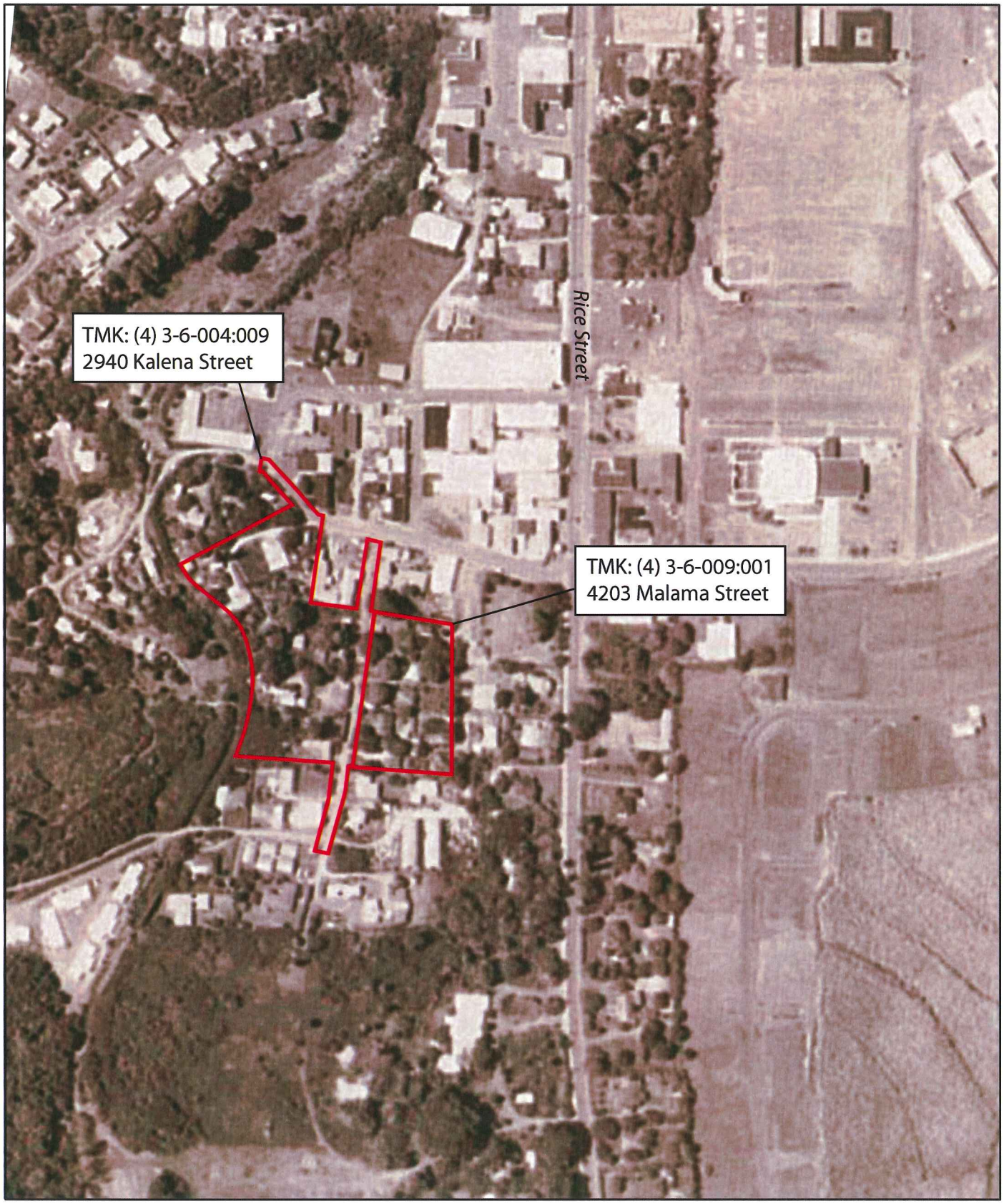

Image Date: November 2, 1969

KIMURA INTERNATIONAL

NORTH

Historic Aerial Photos
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kauai, Hawaii

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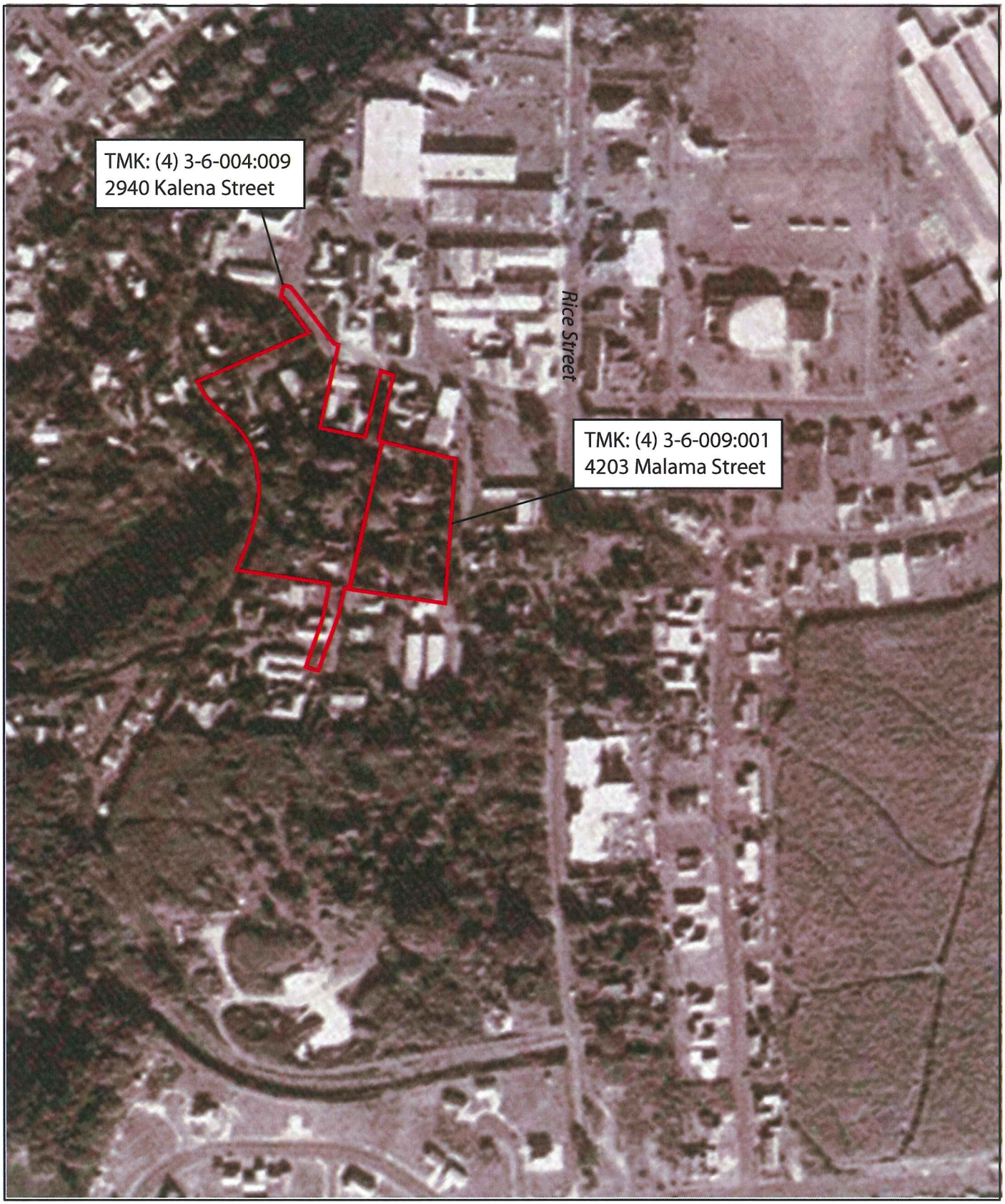

Image Date: October 5, 1976

KIMURA INTERNATIONAL

NORTH

Historic Aerial Photos
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kauai, Hawaii

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Image Date: October 19, 1992

KIMURA INTERNATIONAL

NORTH

Historic Aerial Photos
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kauai, Hawaii

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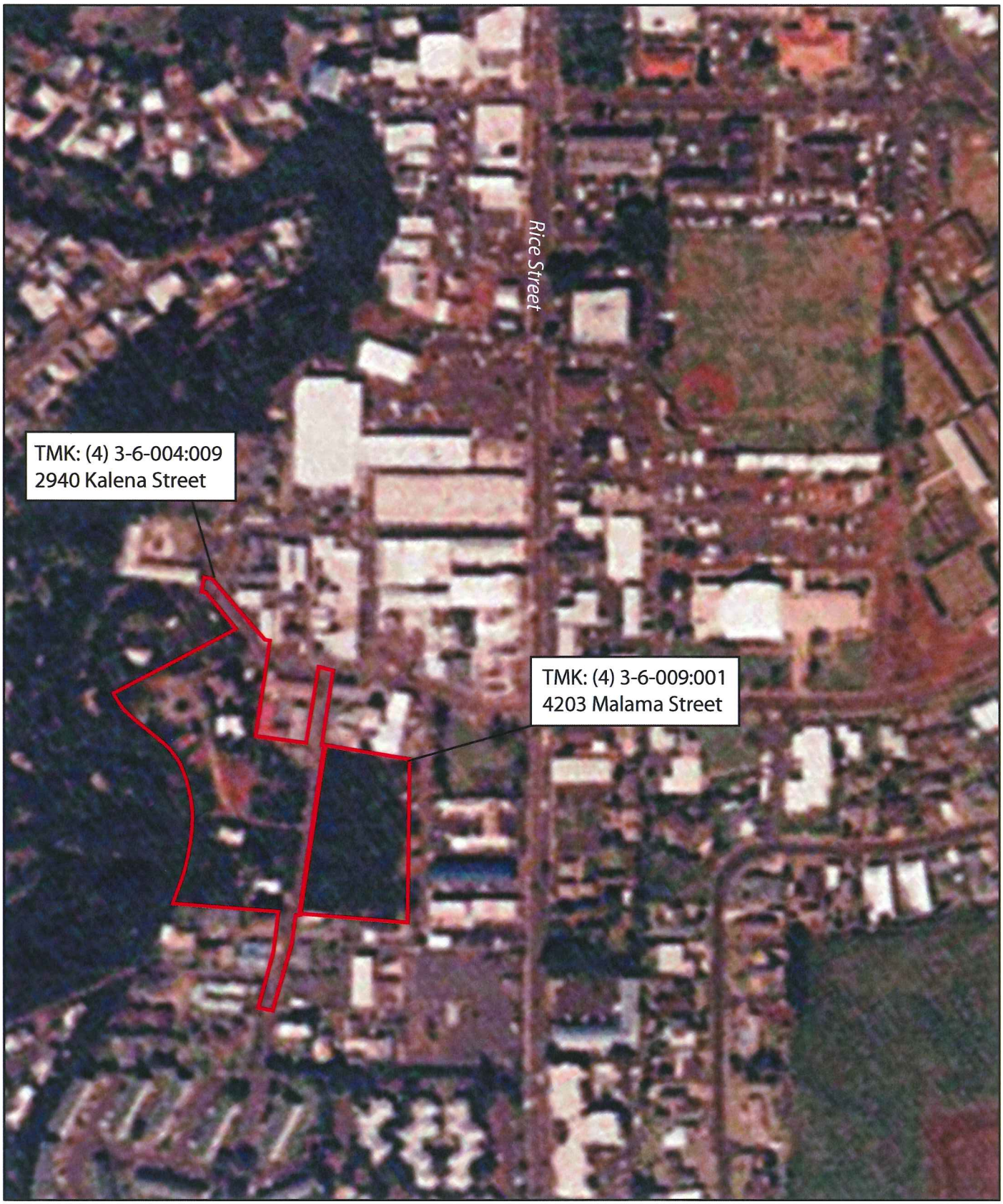

Image Date: March 14, 1995

KIMURA INTERNATIONAL

NORTH

Historic Aerial Photos
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kauai, Hawaii

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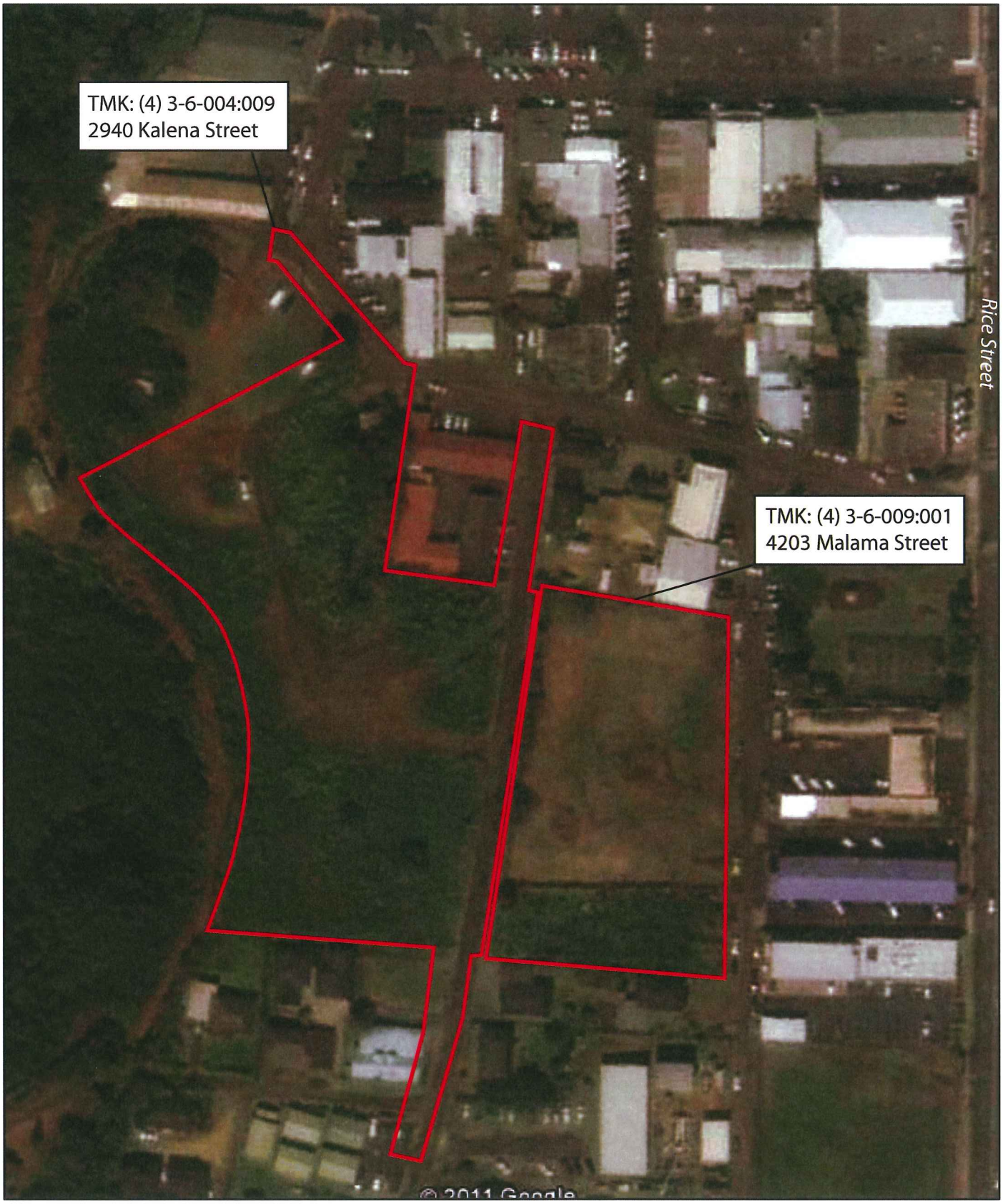

Image Source: Google Earth, 2005

KIMURA INTERNATIONAL

NORTH

Historic Aerial Photos
Phase I: Environmental Site Assessment
Westridge Properties, Lihue, Kauai, Hawaii

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Appendix F

QUESTIONNAIRE

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User Questionnaire

Property
4203 Malama Street
Lihue, Kauai, Hawaii 96766
TMK (4) 3-6-009:001

Property User Contact Information
Name: Shawn Smith for Westridge Properties
Address: 1875 S. Grant Suite 600, San Mateo, CA 94402

Email or Phone: Shawn@falkspartners.com
Relationship to the property (owner, tenant, employee, etc.): rep for owner

Over how many years? 5 years

Environmental History of the Property
(1.) Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? If yes, please describe. NTMK

(2.) Are you aware of any Activity and Use Limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law? If yes, please describe. NTMK

(3.) Are you aware of commonly known or reasonably ascertainable information about the property that would help Kimura International to identify conditions indicative of releases or threatened releases? For example:
(a.) Do you know of specific chemicals that are present or once were present at the property, including petroleum products? If yes, please describe. NTMK

(b.) Do you know of spills or other chemical releases that have taken place at the property? If yes, please describe. NTMK

(c.) Do you know of any environmental cleanups that have taken place on the property? If yes, please describe. NTMK

(d.) Do you know of any current or former aboveground or underground storage tanks (ASTs or USTs) on the property? If yes, please describe.

NTMK

(e.) Do you know of any sumps, septic tanks or cesspools on the property? If yes, please describe.

NTMK

(f.) Do you know if the site has a history of flooding? If yes, please describe how the water flows on to the property.

NTMK

(g.) Do you know of any grading activities that have occurred on the property, where soil was brought on to the property as fill material? If yes, please describe.

NTMK

(4.) Are you aware of any other environmental issues on the property or neighboring properties? If yes, please describe.

NTMK

I hereby certify that the provided information is, to the best of my knowledge, accurate and complete:

Signed

10/3/11
Date

Please return the completed form via USPS to:

Kimura International, Inc.
1600 Kapiolani Blvd., Suite 1610
Honolulu, Hawaii 96814

or via email to:

fkimura@kimurainternational.com

User Questionnaire

Property
2194 Kalena Street
Lihue, Kauai, Hawaii 96766
TMK (4) 3-6-004:009

Property User Contact Information
Name: Westridge Properties
Address: ~~2944 Kalena ST~~ 1875 S. Grant Suite 600, San Mateo, CA 94402

Email or Phone: shawn@falkopartners.com

Relationship to the property (owner, tenant, employee, etc.): rep for owner

Over how many years? 5 years

Environmental History of the Property
(1.) Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? If yes, please describe. NOT TO my Knowledge NTMK

(2.) Are you aware of any Activity and Use Limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law? If yes, please describe. NTMK

(3.) Are you aware of commonly known or reasonably ascertainable information about the property that would help Kimura International to identify conditions indicative of releases or threatened releases? For example:
(a.) Do you know of specific chemicals that are present or once were present at the property, including petroleum products? If yes, please describe. NTMK

(b.) Do you know of spills or other chemical releases that have taken place at the property? If yes, please describe. NTMK

(c.) Do you know of any environmental cleanups that have taken place on the property? If yes, please describe. NTMK

(d.) Do you know of any current or former aboveground or underground storage tanks (ASTs or USTs) on the property? If yes, please describe.

NO STORAGE TANKS - NTMK

(e.) Do you know of any sumps, septic tanks or cesspools on the property? If yes, please describe.

NTMK

(f.) Do you know if the site has a history of flooding? If yes, please describe how the water flows on to the property.

NTMK

(g.) Do you know of any grading activities that have occurred on the property, where soil was brought on to the property as fill material? If yes, please describe.

NTMK

(4.) Are you aware of any other environmental issues on the property or neighboring properties? If yes, please describe.

NTMK

I hereby certify that the provided information is, to the best of my knowledge, accurate and complete:

Shawn M. Smith — 10/3/11

Signed — Date

Please return the completed form via USPS to:

Kimura International, Inc.
1600 Kapiolani Blvd., Suite 1610
Honolulu, Hawaii 96814

or via email to:

fkimura@kimurainternational.com

Appendix G

USER QUESTIONNAIRE
APPENDIX X3

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X3. USER QUESTIONNAIRE

INTRODUCTION

In order to qualify for one of the *Landowner Liability Protections (LLPs)*[35] offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"),[36] the *user* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

(1.) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).
Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law? NO

(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).
Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? NO

(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).
As the *user* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business? NO

(4.) Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).
Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*? YES

(5.) Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30).
Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*,
(a.) Do you know the past uses of the *property*? NO
(b.) Do you know of specific chemicals that are present or once were present at the *property*? NO
(c.) Do you know of spills or other chemical releases that have taken place at the *property*? NO
(d.) Do you know of any environmental cleanups that have taken place at the *property*? NO

(6.) The degree of obviousness of the presence of likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).
As the *user* of this *ESA*, based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*? NO

---

[35] *Landowner Liability Protections*, or *LLPs*, is the term used to describe the three types of potential defenses to Superfund liability in EPA's *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability* ("*Common Elements*" Guide) issued on March 6, 2003.
[36] P.L. 107-118.

X3.1 In addition, certain information should be collected, if available, and provided to the *environmental professional* selected to conduct the Phase I. This information is intended to assist the *environmental professional* but is not necessarily required to qualify for one of the *LLPs*. The information includes:

(a) the reason why the Phase I is required,

(b) the type of *property* and type of *property* transaction, for example, sale, purchase, exchange, etc.,

(c) the complete and correct address for the *property* (a map or other documentation showing *property* location and boundaries is helpful),

(d) the scope of services desired for the Phase I (including whether any parties to the *property* transaction may have a required standard scope of services on whether any considerations beyond the requirements of Practice E1527 are to be considered),

(e) identification of all parties who will rely on the Phase I *report*,

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APPENDIX C

ARCHAEOLOGICAL INVENTORY SURVEY

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SCS Project Number 1350-4

ARCHAEOLOGICAL INVENTORY SURVEY OF TWO PARCELS IN KALAPAKI AHUPUA`A, LIHUE DISTRICT, ISLAND OF KAUA`I, HAWAI`I [TMK: (4) 3-6-004:009 & 3-6-009:001]

Prepared by:
Jim Powell, B.A.,
and
Michael Dega, Ph.D.

March 2013
DRAFT

Prepared for:
Environet, Inc.
1286 Queen Emma Street
Honolulu, HI 96813

ABSTRACT

Scientific Consultant Services, Inc. (SCS) conducted Archaeological Inventory Survey of two currently undeveloped parcels totaling 5.05-acres in Kalapaki Ahupua`a, Lihue District, Island of Kaua`i, Hawai`i [TMK: (4) 3-6-004:009 & 3-6-009:001]. The project area is being slated for construction of Senior affordable housing in Lihue. Both pedestrian survey and subsurface testing were completed for this project.

Two archaeological sites were identified during this project. However, neither was empirically confirmed during the current fieldwork. Site 50-30-11-2194 consists of an historic-era irrigation tunnel, a variable 9.5-13.2 feet deep, that courses beneath both parcels in a north-south fashion, and out falls into Nawiliwili Stream Valley to the south of Parcel 009. The presence of the tunnel was confirmed by ground penetrating radar during a geophysical investigation of the parcels in 2012. Site 50-30-11-2195 consists of at least four infants, and possibly up to fourteen infants, who were buried on the parcel by the Hookano family. This area occurs within a protected zone along the northern portion of Parcel 009. Overall, subsurface testing predominantly revealed homogenous natural silty clay strata. The parcels are the former location of Rice Camp, predominantly occupied by migrant workers in the early 1900s. Given the vast amount of clearing and grading on the parcels, it is presumed that signatures of the camp were removed and simply bulldozed into an adjacent gulch in the c. 1950s- 1960s.

Although two sites of note occur on the parcels, given the lack of significant findings overall during the survey and testing program, only one task is recommended for the parcels. An existing Burial Treatment Plan for the known burial site should be followed accordingly, as per the wishes of the descendents and the Kaua`i/Ni`ihau Islands Burial Council. Monitoring is not recommended during ground altering work on either parcel.

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INTRODUCTION

At the request of Environet, Inc., Scientific Consultant Services, Inc. (SCS) conducted an Archaeological Inventory Survey of two parcels composing 5.05-acres of currently undeveloped land in Kalapaki Ahupua`a, Lihue District, Island of Kaua`i, Hawai`i [TMK: (4) 3-6-004:009 & 3-6-009:001] (Figures 1 and 2). The project area is being slated for construction of Senior affordable housing in Lihue. Both pedestrian survey and subsurface testing were conducted.

Archaeological Inventory Survey was conducted to assess the presence/absence of significant sites in surface and/or subsurface contexts of the project area. Given former use of the land as Rice Camp, there were some expectations for identifying significant historic properties or, at the least, artifacts associated with camp use. Historic-Modern land alterations have effectively erased most traces of the camp from the heavily graded parcels. However, two sites, not confirmed during the current study, occur on parcel 009. These include Site 50-30-11-2194, an historic-era irrigation tunnel and Site 50-30-11-2195, an historic burial area in the central, northern flank of parcel.

Fieldwork was conducted on February 12, 2013 by SCS archaeologists Jim Powell, B.A., Milton Ching, B.A., and Michael F. Dega, Ph.D., Principal Investigator. The purpose of the archaeological investigation was to identify and document all archaeological historic properties within the project area and to gather sufficient information to evaluate the significance of each historic property in accordance with criteria established for the Hawai`i State Register of Historic Places (HAR§13-275-6).

PROJECT BACKGROUND AND PROPOSED CONSTRUCTION

The project area, currently a majority of which is undeveloped, encompasses 5.05-acres on two parcels. TMK Parcel 3-6-004:009 measures 3.4 acres while TMK Parcel 3-6-009:001 measures 1.65 acres (see Figure 2). Both parcels are owned by the County of Kaua`i and are intended to be developed for Senior affordable housing units. A total of 84 units are proposed to be built on the two parcel, mostly one-bedroom/one-bath units with some two-bedroom units.

ENVIRONMENTAL SETTING

The project area is located at c. 200 feet above mean sea level in the mostly built environment of Lihue, Kalapaki Ahupua`a, Lihue District, Kaua`i. Parcel 009 is bounded on the north by Kalena Street and a grassy field, Hoala Street to the east, Pala Street and an existing residence to the south, and Nawiliwili Stream gulch to the west. Parcel 001 is bounded by an

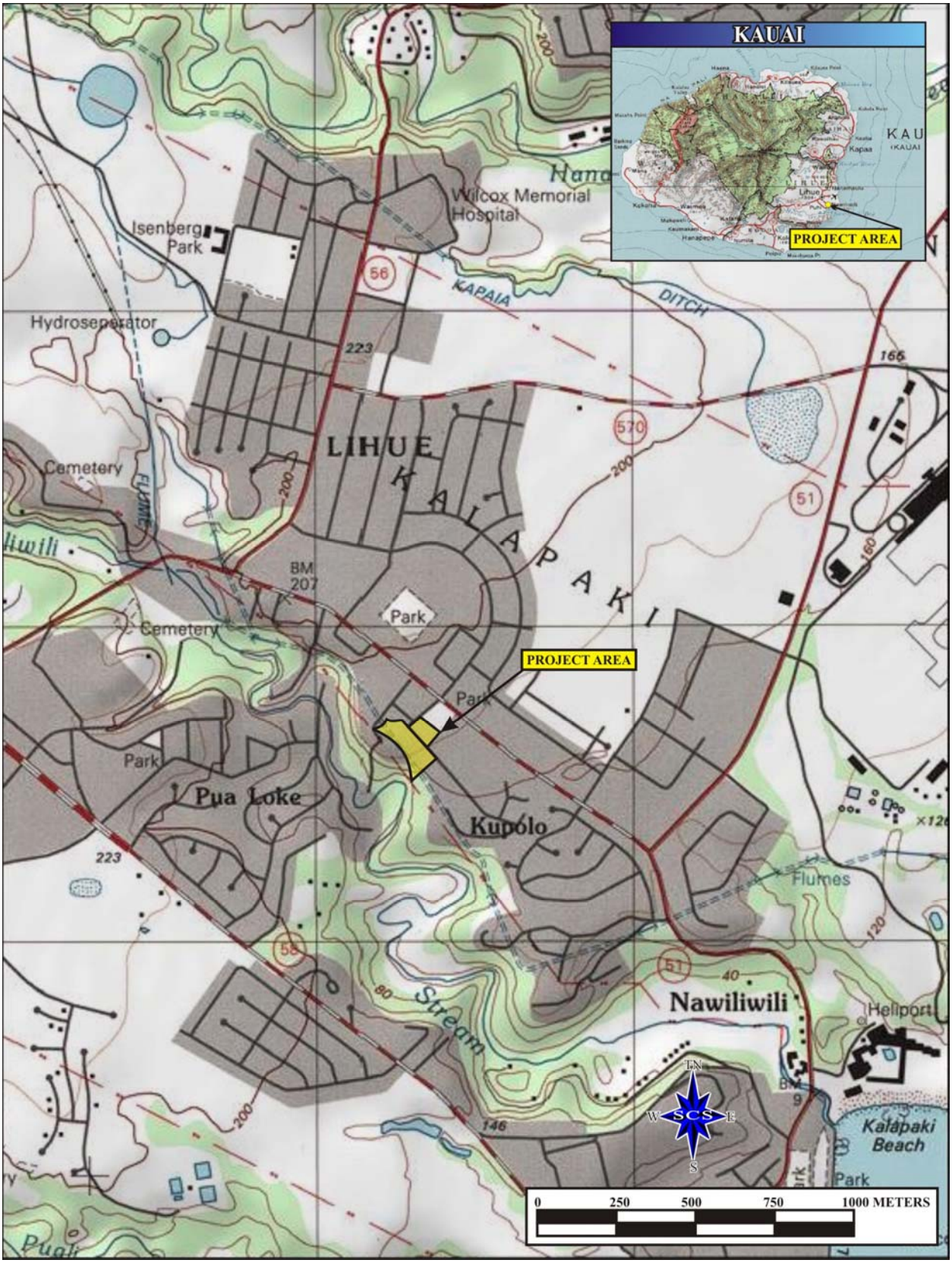

Figure 1: USGS Quadrangle Map (Lihue, 1983) Showing Project Area Location.

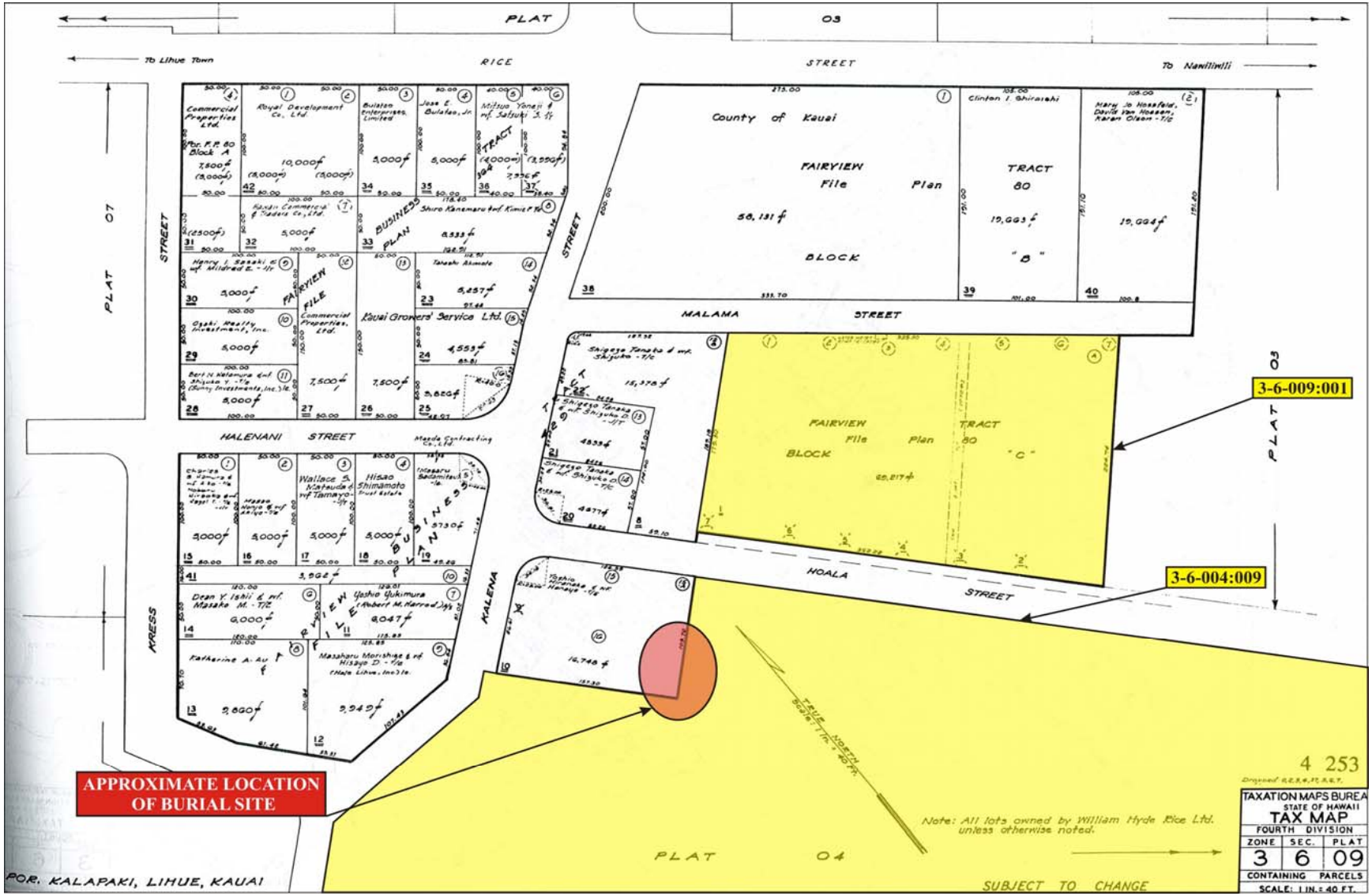

Figure 2: Tax Map Key Showing Project Area Location.

existing business structure to the north, Malama Street to the east, residences to the south, and Hoala Street to the west. Both parcels have very little topography, this likely being the result of massive mechanical grading of the area.

RAINFALL, SOILS, AND VEGETATION

Annual rainfall in the Lihue area is c. 40 inches, somewhat average between the wetter mountainous terrain to the west and the drier terrain to the south/southeast (Armstrong 1983:56). Soils in the general project area fall into the Lihue Series, consisting of well-drained soils on uplands (Foote *et al*. 1972:82). The soils have developed in material weathered from igneous rock and are gentle sloping to steep. Overall, these soils are associated with irrigated sugar cane, pineapple, pasture, truck crops, orchards, and home sites, among other uses (*Ibid*.). Three series are present in the project area. The dominant is Lihue silty clay (LhD; Foote *et al*. 1972:82), This sediment is dusky-red silty clay, with subsoil that dark-red to dark reddish brown compactly silty clay that has a subangular, blocky structure. The second is also Lihue silty clay (LhA) which carries the same soil and subsoil profile but occurs on slightly steeper slopes (15%-20%). Finally, rough broken land (rRR; Foote *et al*. 1972:119) is present to the south and west bordering the project area. This series consists of very steep land divided by multiple intermittent drainage channels. The drainages contain colluvial and alluvial soils while the slopes contain silty clays over weather rock fragments, and rock outcrops.

As discussed below, soils in the project area generally conformed to the Lihue series: reddish brown silty clays underlying a thin, upper humic layer of grasses and soil. Bedrock was only reached in one trench, along the northern flank of Parcel 009 (see below). Sediments across the parcels were homogenous, with little variation in texture, coloration, and plasticity.

Vegetation in the project area primarily consists of feral grasses. Parcel 001 wholly consists of low cut grass, with no trees or other arboreal elements. Parcel 009 also contains several mango trees (*Mangifera indica L.*), African tulip (*Spathodea campanulata*), several sun flowers (*Helianthus annuus*), palm trees (*Archontophoenix alexandrae*), and ferns (*Lycopodiaceae*).

CURRENT BUILT ENVIRONMENT STRUCTURES ON PARCELS

The current project area consists of two land parcels. Parcel 009, the 3.40 acre parcel, does not contain any existing structures (Figure 3). There is a burial area along the northern portion of the parcel (see below). Parcel 001 currently contains a large "tent" storing machinery, as well as several fire trucks and cars parked on the lot. The fire station is across the street and

due north, of Parcel 001, the latter being used as over-flow parking. No other structures occur on the parcel.

Figure 3: Photograph of Parcel 009 Project Area, Location of ST-1 and ST-2. View to South.

TRADITIONAL AND HISTORICAL BACKGROUND

Lihue, the current central seat of the County's government and commercial center, is translated as "cold chill" (Pukui *et al.* 1974). The settlement was established in 1824 by High Chief Kaikioewa, who was appointed governor of Kaua`i by King Kamehameha III (Kikuchi 2004). The governor named the place "Lihue" after his previous home in Wahiawa, O`ahu. As Kikuchi (2004) notes, the date 1824 is important as it marked the death of Kaumuali`i, Ruling Chief of Kaua`i, who bestowed the island to Kamehameha, thus unifying all the islands under one ruling chief.

Kalapaki Ahupua`a, where the current project area is located, is not translated directly by Pukui *et al*. (1974) but is simply listed as a “beach” in Līhu‘e district (Monahan and Hammett 2008). Wichman (1998) defines "*kalapakī*" as “double-yolked egg." Kalapakī Ahupua`a may be

best known during Traditional times (pre-1778) for the presence of several *heiau*: Ninini Heiau and Kuhiau Heiau. Both *heiau* were noted by Bennett (1931) during his island-wide survey of Kaua`i (see below).

References have also been made to Kalapaki Ahupua`a in Fornander (1918-1919 Vol 2:96-97) where he refers to "*He waikai ko Kalapaki*" or the "salty, fresh water of Kalapaki." Hammatt (2005:7) also notes that the proper name "Lihue" appears in the "Legend of Uweuwelekehau" where the protagonist and his wife, Luukia, are punished and stripped of clothing and sent to Mana, on the western side of the island. When they reach the Lihue plains, Luukia complains of having no clothes and Uweuwelekehau tells her that they can procure *kapa* from a small hill nearby (Fornander 1918-1919 Vol 2:96-97).

Prior to Western Contact, Kalapaki Ahupua`a and most especially Nāwiliwili Ahupua`a was heavily cultivated with a full range of Hawaiian crops. Remnants of past cultivation litter the valley from mountain to sea. In his historic observation of Nāwiliwili Valley, Handy (1940) describes inland Nāwiliwili as “formerly all in terraces” while nearer to the sea, “three Hawaiian taro planters cultivate wet taro in a few small terraces” (Handy 1940:67). Handy and Handy (1972) further describe the valleys as hosting stands of breadfruit trees and bananas, remnants of past arboriculture, while the upper portion of flat lands was once densely terraced. Arboriculture must have played a large role in the society at Kalapaki and Nāwiliwili in old days.

HISTORIC LAND USE

In her short paper in *The Kaua`i Papers,* Mary Girven Rice enumerates the early history of Līhu`e. In summary of Rice’s description, Līhu`e was a sleepy town in the early 1850s. While there were dense villages of natives, including the village of Pualoki, relatively few westerners had settled the region by this time. The landscape was quite untouched by invasive species, being vegetated densely in native species of *koa* (*Acacia koa*), sandalwood (*Santalum* spp.), *hau* (*Hibiscus* spp.). Native subsistence practices, particularly fishing and cultivation of taro (*Colocasia esculenta*), drove the economy (Kaua`i Historical Society 1991).

During the early years of Līhu`e, several European settlers attempted to start farm industries in the area. A meager coffee farm was attempted by Mr. Godfrey Rhodes in 1830. Following the failure of this endeavor, Hoffchlaeger & Company began cattle ranching and supplying dairy products, beef, and hide to whalers in the area. While this endeavor was marginally successful, with as many as 700 head at one time, ranching did not become a major industry in this area (Kaua`i Historical Society 1991).

In 1849, the first sugar plantation in Līhu`e was formed as a partnership between Charles Reed Bishop, Judge William L. Lee, and Henry A. Pierce of Boston (Hawaiian Sugar Planter's Association, Plantation Archives 2013). General J.F.B Marshall was the first plantation manager of record and started on 2,000 acres of land from the estate of Governor Kekuanaoa. Over the coming four decades, this small business grew to over 30,000 acres. Corresponding with the growth of this plantation, reservoirs, ditches and tunnels were engineered to feed water to the growing fields, and plantation workers were imported from China, Japan, the Philippines, and Portugal (Note: from 1853-1859+, the laborers in the fields were exclusively Hawaiians while Chinese workers operated the mill; *Ibid*.). After 1900, c. 1,600 workers were employed by the plantation, including Japanese, Portugese, Hawaiian, Korean, and Puerto Rican workers. The economy produced by the Lihue Plantation at last propelled Līhu`e Town into a major population center in Kaua`i (Kaua`i Historical Society 1991), all on the richly arable soils of Lihue and Nāwiliwili. The current project area parcel was included as part of the Lihue Plantation land, with an irrigation tunnel (Site -2194) running beneath both parcels.

The current parcel was also the location of Rice Camp, one of three named "Rice Camp" locations on Kauai. Harry Yamanaka grew up in Rice Camp in the 1930s and 1940s and describes life in the camp (Kauaistories.net). He describes the housing, his neighbors, animals roaming around the camp, and daily life in and near the camp.

THE MĀHELE

In the 1840s, traditional land tenure shifted drastically with the introduction of private land ownership based on western law. While it is a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kauikeaouli (Kamehameha III) was forced to establish laws changing the traditional Hawaiian economy to that of a market economy (Kame`eleihiwa 1992:169-70, 176; Kelly 1983:45, 1998:4; Daws 1968:111; Kuykendall 1938 Vol. I:145). The Great Māhele of 1848 divided Hawaiian lands between the king, the chiefs, the government, and began the process of private ownership of lands. The subsequently awarded parcels were called Land Commission Awards (LCAs). Once lands were thus made available and private ownership was instituted, the *maka`āinana* (commoners), if they had been made aware of the procedures, were able to claim the plots on which they had been cultivating and living.

According to Mahele records, the governor of Kaua`i (Paulo Kanoa) in the mid-1840s claimed Kalapaki Ahupua`a and Hanama`ulu Ahupua`a but was not awarded either land area. Both *ahupua`a* were actually awarded to Victoria Kamamalu (LCA 7713:2) and included the

project area parcel in Lihue. Kamamalu died on May 29, 1866. By a series of deeds, William Hyde Rice acquired the land, including the current parcel. Upon his death in 1924, the Rice family continued to own the parcel. According to Hammatt (2005:9), overall land claims by commoners (*maka`ainana*) in Kalapaki Ahupua`a occurred from the shore line to the flood plains the valleys, such as Nawiliwili Valley, occurring just to the south of the current project area. There were 13 claims (12 awarded) in Kalapaki Ahupua`a, with all the house lots being near the coastline and taro cultivation lands in the valley floodplains. N. McMahon is currently conducting a Cultural Impact Assessment (CIA) for the client on this project and will provide more background and historical information. The reader is also referred to Monahan and Hammatt (2008) for in-depth historical research of Kalapaki Ahupua`a.

PREVIOUS ARCHAEOLOGICAL RESEARCH

The current project area has not previously been subject to archaeological research. However, there have been c. 12+ projects over the past few decades in Kalapaki Ahupua`a, with several projects having been conducted in Lihue proper (Figure 4). More archaeological work has also been completed in the adjacent Nawiliwili area. Both areas are discussed below.

Archaeological assessments of the Lihue-Wiliwili area have been based on the earliest work in conducted by W.C. Bennett in 1931. Bennett (1931) identified three archaeological sites in the general vicinity of the current project parcel. Site -98 was identified as Niamalu Fishpond, a freshwater pond located on the north bank of the Hulē`ia River. Handy and Handy (1972:426) identify Bennett's Site -98 as properly named Alakoko, saying this was "presumably an error owing to the proximity of the *ahupua`a* named Niumalu, adjacent to the Halē`ia River". Handy and Handy (1972:426) go on to describe this fishpond as having been built by *menehune,* who "left a gap in the seaward end unfinished because dawn came before they had completed their work". Site -99, Kuhiau Heiau, was located near the current site of the courthouse and had been destroyed prior to Bennett's 1931 assessment. Thrum documented this site as being "A large paved heiau, whose enclosure covered an area of about four acres…" (quoted in Bennett 1931). F. Wichman (1998:59) further identifies Bennett's Site -99, Kuhiau Heiau as "one of the oldest *heiau* on the island". This *heiau*, long-since destroyed, was located on what is now Kaua`i High School property. Finally, Site -100 is a second *heiau*, also destroyed prior to Bennett's work. This *heiau*, known as Ninini Heiau, was located near the site of the Nāwiliwili Light House.

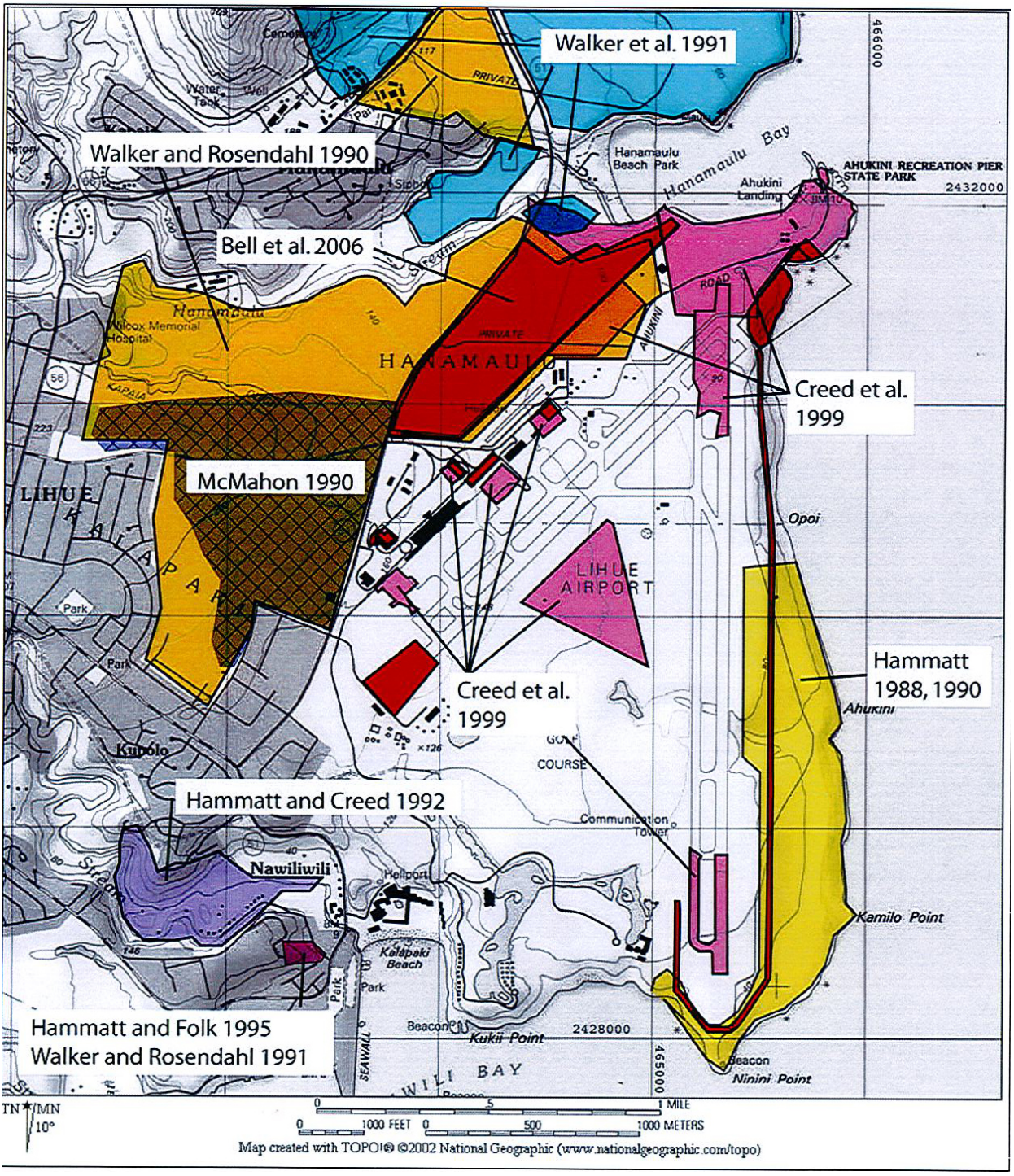

Figure 4: Portion of USGS Topographic Map Showing Locations of Previous Archaeological Research (From Monahan and Hammatt 2008).

While many of the projects in Kalapaki Ahupua`a have been conducted nearer the coast *(i.e.*, Hammatt 1988, 1990, 2005; Creed *et al.* 1999), several occur more inland as well. A majority of the work has occurred near the Lihue airport area, with some projects extending inland toward the city. The shoreline projects have yielded more archaeological sites, however. Given the more intensive sugar cane work inland from the coast, this is not unexpected. Of relevance for the current project area three projects conducted within Lihue itself and one just to the east in Nawiliwili.

Walker and Rosendahl (1990) conducted Inventory Survey-level investigations on a parcel [TMK: (4) 3-7-003: portion 020] to the north and east of the current project area. No surface architecture was noted and only several small, isolated coral fragments were identified during the excavation of nine backhoe trenches. The researchers recommended no further work as the area as suggested to have disturbed during sugar cane cultivation. McMahon (1990) conducted a Field Inspection of three parcels adjacent to the airport and extending into Lihue proper. Three previously identified historic-period residences were identified (SIHP Nos. 50-30-9390, -9401 and -9402) but no other cultural resources were noted. In 1993, Cultural Surveys Hawaii conducted Burial Treatment for a Historic cemetery, Nāwiliwili Cemetery (Hammatt and Folk 1995). Forty-eight intact and partially intact burials were disinterred and moved to a 0.06 acre area designated for a private memorial park. Prior to the application of archaeology on this lot, the old Nāwiliwili Cemetery was severely disturbed during modern construction activities in which the headstones and grave markers in this area were cumulatively removed from the area. Several lineal descendant families came forward in response to the relocation of these remains.

Three previously identified sites occur closest to the current project area, both to the north/northwest and to the south, all sites occurring within a kilometer of the project area (Figure 5). The sites were all recorded by Kikuchi and Remoaldo (1992). Site 11-B001 is an historic site: the Lihu`e Lutheran Church Cemetery. Site 11-B002 is a Japanese Cemetery (but may have been re-located). Site 11-B003 is the Lihu`e Lutheran Church Cemetery/Lihu` Public Cemetery. No sites of an earlier time period, such as pre-Contact architecture or cultural deposits or historic-period habitation/activity areas, have been documented near the project area. A majority of these site types have been documented nearer the coast, near the current Lihue Airport, Ahukini Landing area, and the Nawiliwili light house area.

METHODOLOGY

Archaeological Inventory Survey was conducted on two parcels composing the project area. Both field and laboratory research were conducted during this project. Fieldwork was conducted on February 12, 2013 by SCS archaeologists Jim Powell, B.A., Milton Ching, B.A., and Michael F. Dega, Ph.D., Principal Investigator.

FIELD METHODS

The primary purpose of the archaeological fieldwork was to identify and document all historic properties in the project area and to gather sufficient information to evaluate the significance of each historic property in accordance criteria established for the Hawai`i State Register of Historic Places (HAR§13-275-6). As the results of the survey were negative for archaeological sites, the results are being presented in this report as an Archaeological Assessment.

Prior to testing, pedestrian survey of the project area was conducted by the field crew. Surface visibility on Parcel 009 was fair-excellent and excellent on Parcel 001. The crew walked east-west transects on both parcels. The crew also searched for the documented burial site, along the eastern flank of Parcel 009, but found no evidence for its location. While no surface sites, artifacts, or midden scatters were identified, survey allowed for marking representative testing locations across both parcels.

A total of nineteen (19) stratigraphic trenches of variable length and depth were excavated on the parcels, thirteen (13) trenches on the larger Parcel 009 and six (6) on the smaller Parcel 001 (Figure 6). A small excavator with 24" bucket was utilized to mechanically excavate all nineteen trenches. All sediments were documented with photographs, stratigraphic profiles, and Munsell soil descriptions. Standard excavation and recording procedures were used during the project. As no cultural deposits or subsurface features were identified, excavated matrices were not screened. Table 1 below provides descriptive information on the nineteen trenches.

LABORATORY METHODOLOGY

Laboratory work primarily involved classifying and creating a database for all field notes, digital photographs, and soil samples collected during the project. Work outside the field also included archival research and interviews with local residents (by Milton Ching, SCS) to ascertain the location of the burial site. One historic artifact (ink bottle) was identified in the

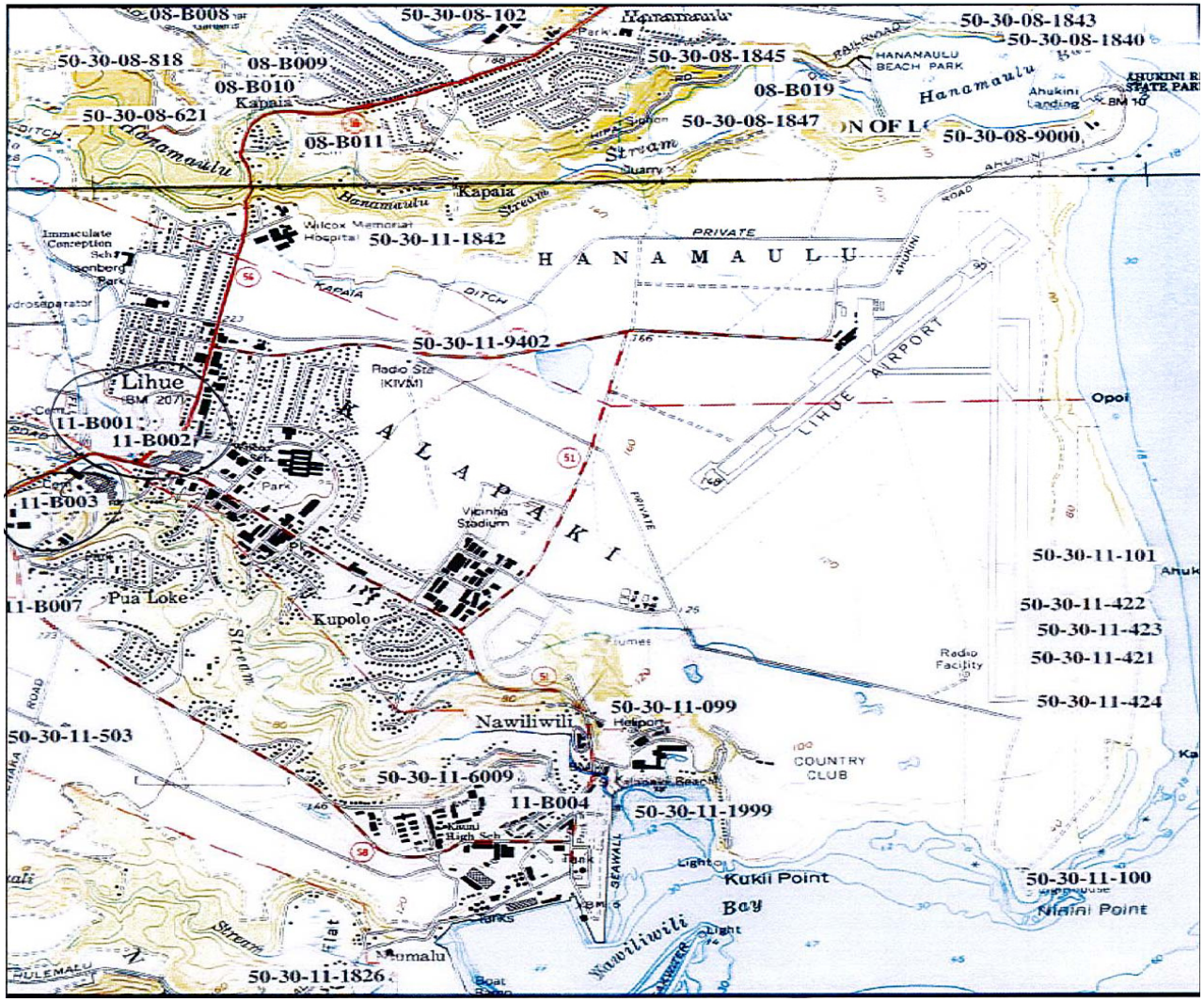

Figure 5: Portion of USGS Topographic Map Showing Location of Sites 11-B001, 11-B002, and 11-B-003 Near Project Area (From Spearing et al. 2008).

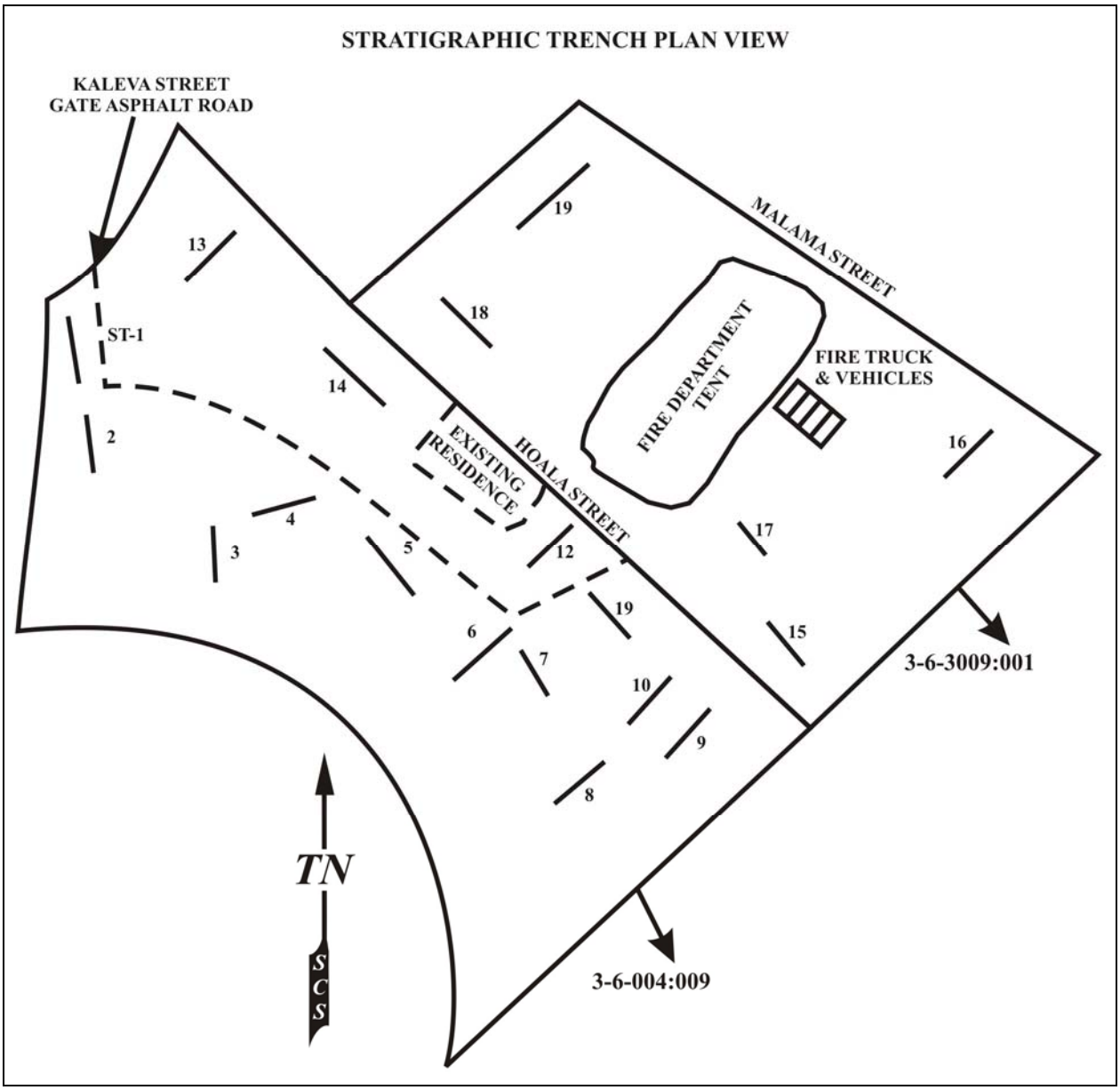

Figure 6: Map Depicting Location of Stratigraphic Trenches.

matrix and was examined, classified, and catalogued. Representative stratigraphic profiles of all excavated trenches have been drafted for presentation within this report. The final steps of laboratory work consisted of digitizing photographs, reporting, and curation.

All materials gathered during this project (including documentation) are ultimately the property of the client, the County of Kaua`i. These materials are currently being curated at the SCS laboratory in Honolulu.

FIELDWORK RESULTS

Pedestrian survey and the excavation of nineteen trenches across both parcels was conducted for the Inventory Survey research. Two archaeological sites were identified during this project. However, neither was empirically confirmed during our fieldwork.

Site -2194 consists of an historic-era irrigation tunnel that courses beneath both parcels in a north-south fashion (Hamili 2012; Figure 7). The presence of the tunnel was confirmed by GPR during a geophysical investigation of the parcels by Hamili in September, 2012. According to Hamili (2012), the Rice Camp Drainage Tunnel, as it has been classified, begins at Rice Street (several blocks to the north) and runs in a southwest direction across both project area parcels, terminating at a steel pipeline out fall into Nawiliwili Stream Valley, just to the south of Parcel 009. The tunnel is a variable 9.5-13.2 feet below ground surface and is cylindrical, with natural soil forming its perimeter walls. The tunnel diameter was estimated at 50 inches to 60 inches.

The tunnel was built for irrigation by the Lihue Plantation Company, originating in 1849 but formally using the name in 1859. The tunnel was likely constructed sometime before 1910, when "the irrigation system of Lihue Plantation Company had grown to contain 33 miles of ditches, four miles of tunnels, and 9,900 feet of water gearing flumes" (Hawaiian Sugar Planter's Association, Plantation Archives 2013).

Site -2195 consists of at least four infants who were buried on the parcel by the Hookano family. The number and presence of the burials was noted in a 2004 letter authored by the late LaFrance Kapaka-Arboleda (Appendix A). This area occurs within a protected zone along the northern portion of Parcel 009 (Figure 8). The infants were the product of William Iwiula and his wife Maraea Opunui Hookano. Maraea Hookano was the eldest sister of LaFrance Kapaka-Arboleda's grandmother. Based on the death certificate of William Iwiula, who passed away in 1920, he had fathered 21 children, of which 14 are listed in the obituary. Death records from the County of Kauai state that 14 children of the Hookano family had passed away by 1910. There is the distinct possibility, then, that the burial site may contain 14 child burials, as well as that of William Iwiula. This is the same burial plot noted by descendent LaFrance Kapaka-Arboleda.

Table 1 presents descriptive data of the nineteen excavation units. Please note that ST-1 through ST-13 were placed across Parcel 009 and ST-14 through ST-19 were placed across Parcel 001 (see Figure 6).

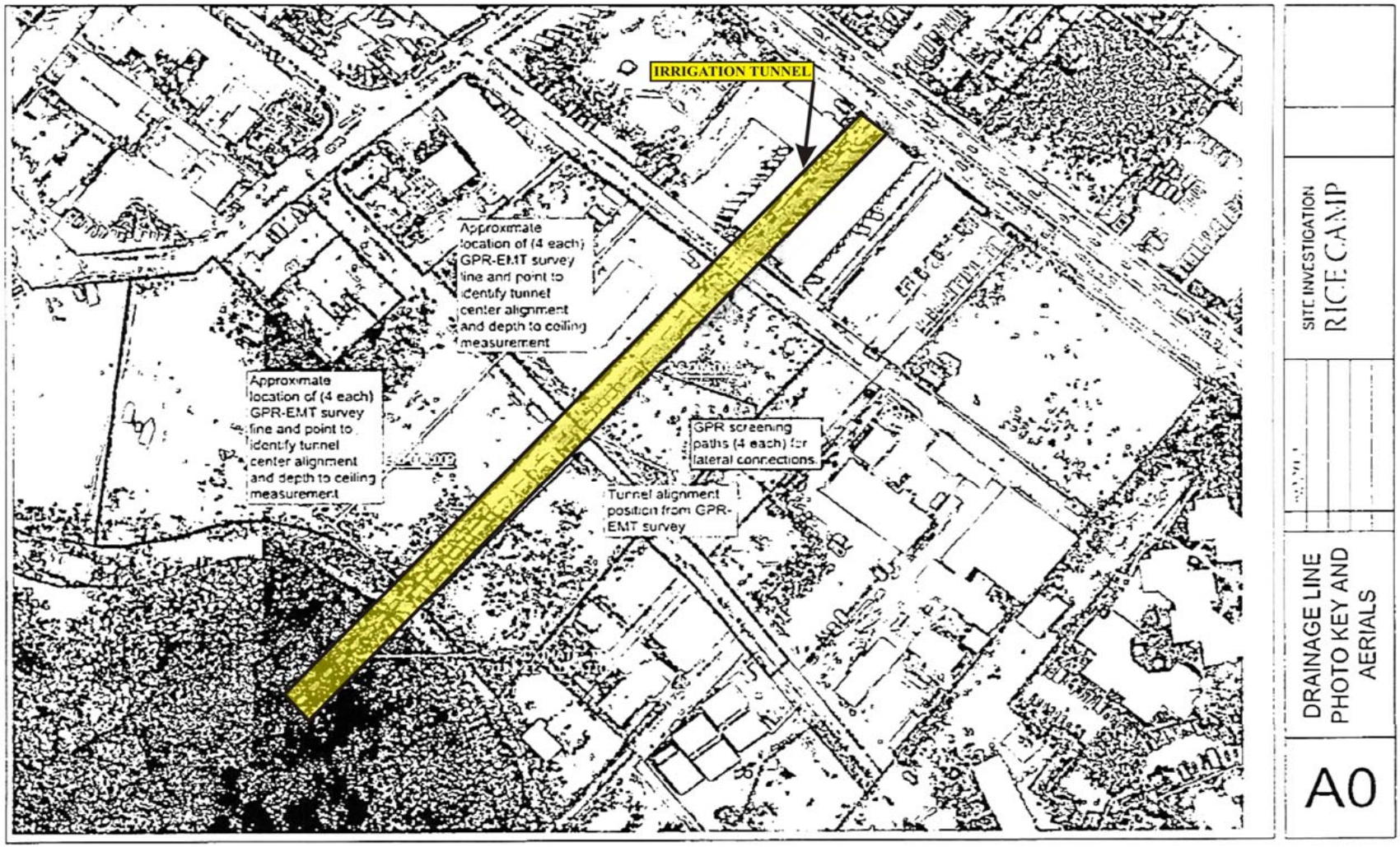

Figure 7: Map Depicting Location of Site TS-1, Irrigation Channel (from Hamili 2012).

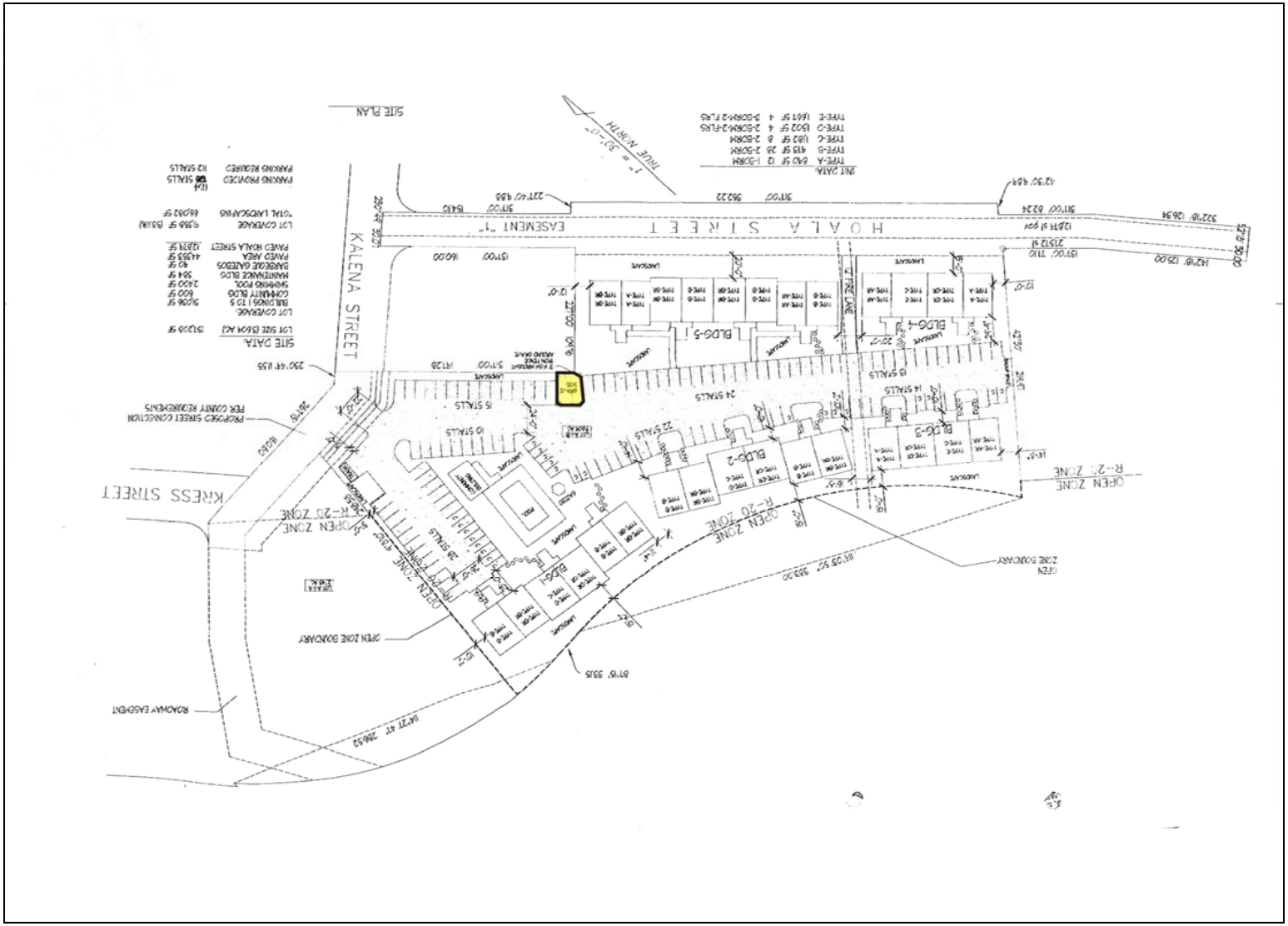

Figure 8: Proposed Senior Housing Project with Location of Burial Site Area (Parcel 009).

Table 1: Trench Excavation Descriptive Data

Trench Number	Length (m)	Width (m)	Depth (m) below surface	Orientation
ST-1	4.00	0.61	1.80	10º/90º
ST-2	3.80	0.61	1.60	5º/185º
ST-3	3.80	0.61	1.40	10º/190º
ST-4	4.30	0.61	1.70	120º/300º
ST-5	3.60	0.61	1.40	115º/295º
ST-6	3.90	0.61	1.55	20º/200º
ST-7	4.10	0.61	1.40	140º/320º
ST-8	4.10	0.61	1.50	30º/210º
ST-9	2.50	0.61	1.40	55º/235º
ST-10	2.90	0.61	1.30	50º/230º
ST-11	3.90	0.61	1.55	135º/315º
ST-12	3.40	0.61	1.40	45º/225º
ST-13	3.90	0.61	1.37	50º/230º
ST-14	6.30	0.61	1.10	115º/305º
ST-15	3.30	0.61	1.45	135º/315º
ST-16	6.60	0.61	1.28	30º/210º
ST-17	3.80	0.61	1.35	120º/300º
ST-18	3.67	0.61	1.30	60º/240º
ST-19	7.90	0.61	1.45	98º/278º

Overall, subsurface testing predominantly revealed homogenous natural silty clay strata. The parcels are the former location of Rice Camp, predominantly occupied by migrant workers in the early 1900s. There were three locations named "Rice Camp" on Kauai in the early 1900s: one in Kipu, one in Haena, and one being the current parcel in Lihue. Given the vast amount of clearing and grading on the parcels, it is presumed that signatures of the camp were removed and simply bulldozed into an adjacent gulch in the 1960s or so. Only two historic artifacts were identified in isolation during the excavation work. Project area stratigraphy was very homogenous and consisted of silty clay underlying a modest O-horizon. While two irrigation channels purported occur some 20 feet below the surface of Parcel 009, excavations did not extend to that depth to empirically verify their presence. In addition, re-location of an historic-recent grave site housing no less than four infants, was not successful to date.

A total of nineteen stratigraphic trenches were excavated during this project on two parcels. The total trenching effort is summarized as 79.77 m (261.64 feet) length, 11.59 m (38.01 feet) wide, and 27.30 m (89.54 feet) in depth. The total area excavated equated to 924.53 m or 3,032 sq. ft. Thus, a fairly representative sample of subsurface contexts was obtained.

One artifact was recovered in subsurface contexts during the project: ST-1 yielded an ink bottle in Layer I (0.80 m below surface). The artifact is a complete, clear glass inkwell bottle with 3-piece mold (base and two flanks). The bottle has an applied ring finish, cylindrical neck, rounded shoulders, cylindrical body, and embossed base. The base embossment reads "Technical Supply Company", "TESCO", and SCRANTON, PA". The inkwell bottle manufacturer is unknown but dates post-1919. This could be an artifact of Camp Rice occupation.

STRATIGRAPHY DISCUSSION

Stratigraphic sequencing within the nineteen trenches consisted of one or two layers, both underlying a very modest (0.05 m) O-horizon of grasses and roots (Figures 9, 10, 11, & 12). One stratum was documented in eleven of the nineteen trenches, while two strata were documented in eight trenches. The only real differences between a Layer I and Layer II were in coloration, not necessarily in texture or sediment composition. In general, Layer I was variable from near surface to 1.20-1.80 meters below the surface and consisted of dark red (7.5R 3/6) to dark reddish brown (2.5YR 3/4) silty clay. The layer was virtually void of clastics and had only modest root and rootlet concentrations. Layer II extended from 1.20+ to the base of excavation (see Table 1 above) and was composed of yellowish red (5YR 6/8) silty clay, with few/none clastics and few roots. Only ST-14 contained an anomaly: a small shelf of bedrock was exposed at 0.40 mbs in the central portion of the trench.

While the trenches were cultural sterile, modern infrastructure was discerned in several trenches, particularly those on Parcel 001. ST-12 (Parcel 009) contained roof tiles (0.20 mbs) and an abandoned, plastic waterline (0.30 mbs). ST-15, ST-16, and ST-17 on Parcel 001 contained concrete (0.20 mbs), a concrete jacket and pipes (0.58 mbs), and base course and water pipes (0.40 mbs), respectively.

The overall soil homogeneity was high throughout the project area. As noted above, the soils identified during excavations were comparable to the sediments described by Foote *et al*. (1972): dusky-red silty clay, with subsoil that dark-red to dark reddish brown compactly silty clay that has a subangular, blocky structure. Variation in project area soils was only discerned by soil coloration, not texture or natural inclusions. Another similarity in the soils was that all

were culturally sterile. Excavations ceased at an average 1.43 mbs due to the lack of cultural materials and continuation of the same, sterile soils.

DISCUSSION AND SUMMARY

Scientific Consultant Services, Inc. conducted an Archaeological Inventory Survey of two currently undeveloped parcels totaling 5.05-acres in Kalapaki Ahupua`a, Lihue District, Island of Kaua`i, Hawai`i [TMK: (4) 3-6-004:009 & 3-6-009:001]. The project area is being slated for construction of Senior affordable housing in Lihue. Both pedestrian survey and subsurface testing were conducted.

Two archaeological sites were identified during this project. However, neither was empirically confirmed during the current fieldwork. Site -2194 consists of an historic-era irrigation tunnel, a variable 9.5-13.2 feet deep, that courses beneath both parcels in a north-south fashion, and out falls into Nawiliwili Stream Valley to the south of Parcel 009. The presence of the tunnel was confirmed by ground penetrating radar during a geophysical investigation of the parcels in 2012. The tunnel most likely pre-dates 1910. Site -2195 consists of at least four infants, and likely 14 infants, who were buried on the parcel by the Hookano family. This area occurs within a protected zone along the northern portion of Parcel 009.

Overall, subsurface testing predominantly revealed homogenous natural silty clay strata. Parcel 009, the larger of the two studied herein, is the former location of Rice Camp, predominantly occupied by migrant workers in the early to mid-1900s. Prior to fieldwork, there was some expectation that artifacts and such related to camp use would be identified in subsurface deposits. The ground surface had obviously been graded, so cultural materials would be most likely below the surface. However, as noted above, only one historic element was

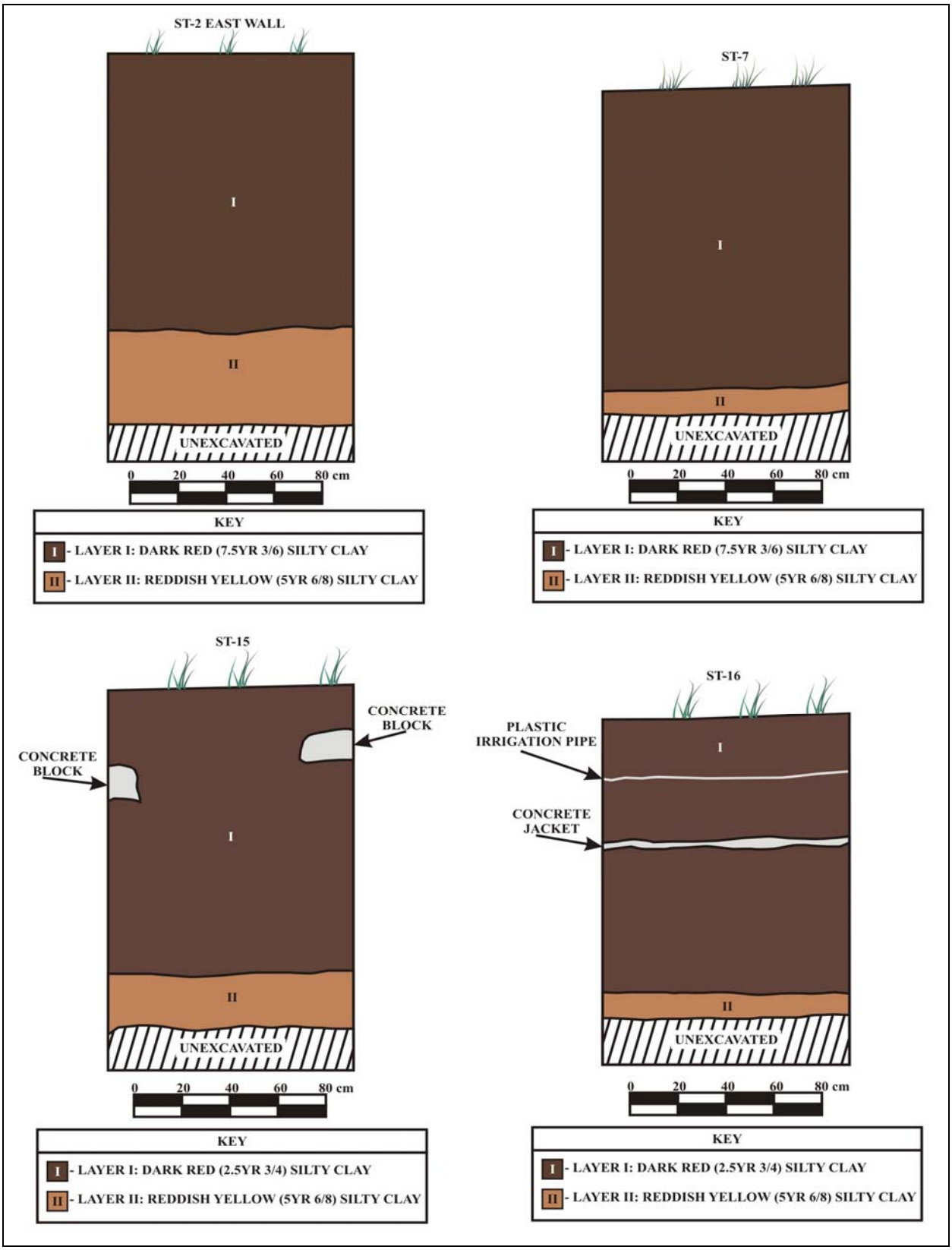

Figure 9: Stratigraphic Profiles of ST-2, ST-7 ST-15, & ST-16.

Figure 10: Photograph of ST-1 Overview at Base of Excavation. View to Northwest.

Figure 11: Photograph of ST-6 Overview at Base of Excavation. View to North.

Figure 12: Photograph of ST-17 Overview at Base of Excavation. View to North.

identified (ink bottle). Apparently, grubbing and grading of the parcel following camp occupation has removed almost all traces of the camp. It is presumed that when the parcel was cleared, surface and upper subsurface soils were bulldozed to the south, over a small adjacent slope that leads down to Nawiliwili Stream (Figures 13, 14, & 15). A brief reconnaissance of the slope, outside the current project area, did indeed indicate soil build-up, as though a bulldozer had pushed soils from the project area over the edge onto a small slope. Modern garbage and possible historic materials were mixed into the large silty clay matrix along the slope. This would at least partially explain the absence of historic cultural materials in the project area. That these lands were utilized for a lengthy duration for sugar cane (Lihue Plantation Co.) also reflects the lack of cultural materials.

RECOMMENDATIONS

While two historic properties have been "identified" on Parcel 009 during the current research, there were not empirically verified during current work. The GPR work did confirm the presence of the Rice Camp Drainage Tunnel while a letter from the former KNIBC chair confirms the presence of burials on the parcel. Given the lack of cultural deposits and the noticeable clearing and grading that have occurred on the parcels however, Archaeological Monitoring is not recommended.

While the documentation is limited, the presumed presence of "not less than 4 infants of William Iwiula and his wife Maraea Opunui Hookano" must be taken into account during construction. County of Kauai records show that there is the possibility that 14 infants may be buried in the grave site (by c. 1910). Per LaFrance Kapaka-Arboleda's letter (November 23, 2004), when the site is identified, prior to construction, it should receive formal preservation, as outlined in her letter. The document discusses "avoidance" of the site, with a wrought-iron fence being erected around the site for preservation. This should be completed prior to any construction on the parcel.

Figure 13: : Photograph of Soil-Piled Berm, Beyond Southern Boundary of Project Area. View to Northeast.

Figure 14: Photograph of Soil-Piled Berm, Beyond Southern Boundary of Project Area. View to Northwest.

Figure 15: Photograph of Debris Near Soil-Piled Berm. View to Southwest.

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APPENDIX A: BURIAL TREATMENT LETTER FROM LAFRANCE KAPAKA-ARBOLEDA

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EXHIBIT '2.1'

November 23, 2004

RE: Class IV Zoning application by "Lihue 56",
TMK: 4-3-06:04 Parcel 9, Lot A-1-B

To Whom It May Concern:

Please be noticed that the above referenced property owners are currently requesting a Class IV zoning change. The property includes the human remains of not less than 4 infants of William Iwiula and his wife Maraea Opunui Hookano. Maraea Hookano was the eldest sister of my maternal grandmother Helena Wahinealiiokalani Opunui Kapaka. As a child and during my teenage years I accompanied my grandmother to the home site. Our visits to the site were to counsel with Iwiula Hookano, a son of Maraea residing in the original family home built by the Rice family. At was during these visits that the history of the land and the burial area were made known to me.

A couple of years ago I mention to Nancy McMahan, State archaeologist-Kauai about my concerns to the area when a former tenant (Kaluahine) had heavy equipment parked within the area. To my knowledge nothing formal was done to give the site a number within the State Preservation System.

Recently I met with Mr. Callijo, regarding his development plans for the parcel. It is my understanding that the plans to develop will not be in the vicinity of the burials. In the interest of time and due to non-response from State Historic Preservation to be placed on the December agenda of the Kauai/Niihau Island Burial Council and receipt of a site registration number, please consider the following: As lineal descendant to the burials on the lot, please accept their application for processing with the understanding that they will be coming before the burial council for confirmation of my stated interest and above declarations.

Sincerely yours,

La France Kapaka-Arboleda

La France Kapaka-Arboleda
P.O. Box 585
Anahola, HI 96703
(808) 651-2527

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APPENDIX D

LETTER FROM KALANI IWIULA, DATED APRIL 3, 2013

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April 3, 2013

Ms. Caroline J. Levenda
Environet, Inc.
1286 Queen Emma Street
Honolulu, Hawaii 96813

Mr. Michael F. Dega
Scientific Consultant Services
711 Kapiolani Blvd, Suite 975
Honolulu, Hawaii 96813

RE: Hookano Iwiula Burials, Lihue, Kauai

Dear Ms. Levenda and Mr. Dega:

Aloha mai kakou, my name is Kalani Iwiula, I am presently residing in California. I am the great grandson of Pauli Kaoleiokukaiailani Hosea Iwiula a.k.a Hosea Iwiula. On January 25, 1912, my great grandfather Hosea Iwiula, visited Kauai, during his stay he visited the homes of Samuel Kanohou Kaeo, the Kauai County Attorney, his brother in law and younger brother, William Hookano Iwiula. My great grandfather, died April 29, 1912 and was brought back to Oahu for burial.

Therefore my late grandmother, Lily Hosea, was first cousin to those infant Hookano Iwiula burials and others.

I respectfully asked that those Native Hawaiian burials and others be protected in accordance with the Hawaii State Constitution, **Article XIII-Section 7 <u>Traditional and Customary Rights</u>** and in accordance with **Chapter 6E, Hawaii Revised Statutes.**

I urged strongly that my "kupunas" burials, not be removed and be left in place, I ask the County of Kauai, now owners of this parcel and the State of Hawaii, Division of Historic Preservation, who is entrusted by law to provide the necessary protection of this historical burial.

Mahalo Nui Loa,

Kalani Iwiula
P.O. Box 13070
Oakland, CA 94661

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APPENDIX E

CULTURAL IMPACT ASSESSMENT

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Cultural Impact Assessment for
Rice Camp Affordable Senior Housing Project
Kalapakī Ahupuaʻa
Līhuʻe District (Puna Moku), Island of Kauaʻi
TMK: [4] 3-6-04: 009 and 3-6-09: 001

Prepared for

Environet Inc.

Prepared by

Nancy McMahon
McMahon Consulting
Līhuʻe , Kauaʻi

March 2013

Management Summary

The project requires compliance with the State of Hawai‘i environmental review process [Hawai‘i Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project’s effect on cultural practices and resources. At the request of Environet Inc., McMahon Consulting undertook this cultural impact assessment (CIA). Through document research and cultural consultation efforts this document provides information pertinent to the assessment of the proposed project’s impacts to cultural practices and resources (per the OEQC’s Guidelines for Assessing Cultural Impacts). The document is intended to support the project’s environmental review and may also serve to support the project’s historic preservation review under HRS Chapter 6E-8 and Hawai‘i Administrative Rules (HAR) Chapter 13275.

Hawaiian organizations, agencies and community members were contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the project area and the vicinity. This effort was made by e-mail, telephone, and in person contact.

The Area of Potential Effect for this project includes 3.609 acres which is the property boundaries in the context of the *ahupua‘a* of Kalapakī. One historic unmarked family (Hookano-Panui) burial site [SIHP 50-30-11-2195] exists on the property with at least 4 to 14 burials, located between the two existing mango trees. One historic drainage tunnel [SIHP 50-30-11-2194] from the sugar plantation also exists 8 feet under the property. It is reasonable to conclude after conducting this Assessment that, pursuant to Act 50, the exercise of native Hawaiian rights, or any ethnic group, related to gathering, access or other customary activities will not be affected by the Rice Camp Affordable Senior Housing Project.

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Project Background

At the request of Environet Inc., McMahon Consulting conducted this Cultural Impact Assessment (CIA) in support of the Rice Camp Affordable Senior Housing Project, located in the Līhuʻe District, located at, along Kalena and Malama Street, Līhuʻe , Kauaʻi, TMK parcels: (4) 3-6-04: 009 and 3-6-09: 001 (Figures 1 and 2).

The proposed project consists of an affordable senior housing project. The improvements include single story and two story buildings with garden and parking areas.

The footprint of the proposed ground disturbance measures approximately 3.609 acres. The Area of Potential Effect (APE) for this project includes the property boundaries of the project in the context of the *ahupuaʻa* of Kalapakī.

The proposed project requires: 1) a Class III Zoning permit; 2) a Use permit; 3) an NPDES permit; and 4) an environmental assessment. The 84-unit affordable senior housing project allows the residential use and needed density. Federal funds will be used for this project. A separate National Historic Preservation Act, Section 106 Compliance and consultation will be conducted.

Document Purpose

The project requires compliance with the State of Hawaiʻi environmental review process [Hawaiʻi Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project's effect on cultural practices. McMahon Consulting is conducting this CIA at the request of Environet Inc. The document is intended to support the project's environmental review and may also serve to support the project's historic preservation review under HRS Chapter 6E-8 and Hawaiʻi Administrative Rules Chapter 13-275.

Scope of Work

McMahon Consulting's scope of work and methods for cultural impact evaluation studies includes consultation with knowledgeable individuals and groups regarding current cultural practices, but does not include formal ethnographic interviews and oral histories, as described in the Office of Environmental Quality Control (OEQC)'s "Guidelines for Assessing Cultural Impacts" (OEQC, 2004). Cultural impact evaluation studies are intended as a more time and cost effective means of addressing potential impacts to cultural practices within project areas that have been fully developed for a long time and where, accordingly, there is less likelihood of ongoing cultural practices.

The scope of work for this CIA includes:

1. Preparation of a report summarizing the results of these research activities. Historical, cultural and previous archaeological background research, including study of archival sources, historic maps, Land Commission Awards, and previous archaeological reports, to construct a history of land use and to determine if archaeological sites or other cultural properties have been recorded on or near this property with the specific purpose of identifying traditional Hawaiian activities

including gathering of plant, animal, and other resources or agricultural pursuits as may be indicated in the historic record;

2. A field inspection of the project area to identify any cultural impact issues;
3. Consultation and interviews with knowledgeable parties regarding traditional cultural practices at or near the parcel; present uses of the parcel; and/or other (non-Hawaiian) practices, uses, or traditions associated with the parcel. Limited consultation primarily by written and/or telephone requests;
4. Preparation of this report that assesses the likelihood that the proposed project will impact cultural practices. This assessment is based on the background research, the review of land use within the vicinity of the project area, and the results of consultation. As indicated above, no formal interviews were undertaken.

Methods

Historical documents, maps, and photographs were researched at: the Kaua`i Historical Society; the Hawai`i State Archives; the Survey Office of the Department of Accounting and General Services; the Hawai`i State Library; the Bernice Pauahi Bishop Museum archives and library; Hamilton Library at the University of Hawaii Manoa; the Kaua‘i Museum Library; and the State Historic Preservation Division (SHPD) library.

A field inspection of the project area by McMahon Consulting was accomplished on February 12, 2013 by Nancy McMahon, M.A.

Hawaiian organizations, government agencies, and community members were contacted to: (1) identify potentially knowledgeable individuals with cultural expertise and knowledge of the project area and the surrounding vicinity, and (2) identify cultural concerns and potential impacts within the project area. The names of potential community contacts were also provided by colleagues and from the authors' familiarity with people who live in or around the project area. The research on this assessment employed snowball and judgment sampling methods, an informed consent process and informal interviews according to standard ethnographic methods (as suggested by Bernard 2005). Some of the prospective community contacts were not available to be interviewed as part of this project. Results of the community contact process are presented later in this document. Nancy McMahon, M.A. conducted the consultation effort.

Environmental Setting

Natural Environment

The project area is located on the windward (east) coast of Kaua‘i, and the general surrounding area receives approximately 50 inches of precipitation annually (Juvik and Juvik 1998). Much greater quantities of rainfall occur inland and west of the project area, and traditional settlements in this area made use of this abundant through-flowing fresh water that drained the uplands of Kilohana Crater and beyond to Wai‘ale‘ale. The terrain in the project area is relatively flat, owing both to its natural physiography and to its more-or-less complete modification by historic and modern building. Elevation in the project area is approximately 10 feet above mean annual sea level.

In pre-Contact times, vegetation in the project area consisted of lowland mesic (relatively moist) forest, woodland and shrubland (Juvik and Juvik 1998). Most of this native ecosystem was disturbed and severely diminished by early historic activities, including commercial agriculture and ranching; today, few, if any, native plants can be found in the project area.

According to Hammatt and Creed (1993), Land Commission documents describing middle 19th century Kalapakī Ahupuaʻa describe native vegetation of *hau* (*Hibiscus tiliaceus*) and *wauke* (Paper Mulberry, *Broussonetia papyrifera*).

Built Environment

The project area was known as Līhuʻe Ranch which started around 1879. There was a dairy near here prior to a plantation camp. Shortly thereafter, stables and a coral existed on the parcel. Some refer to this project area as Rice Camp but many know it Stable Camp (see Figure 15). The housing for the camp started with the need to have help near the dairy and the stables. It is unclear when the first plantation housing built by William H. Rice started in this camp. The last plantation home was demolished in 2004. At one time there were at least 10 plantation homes in this Camp (see Figure 14).

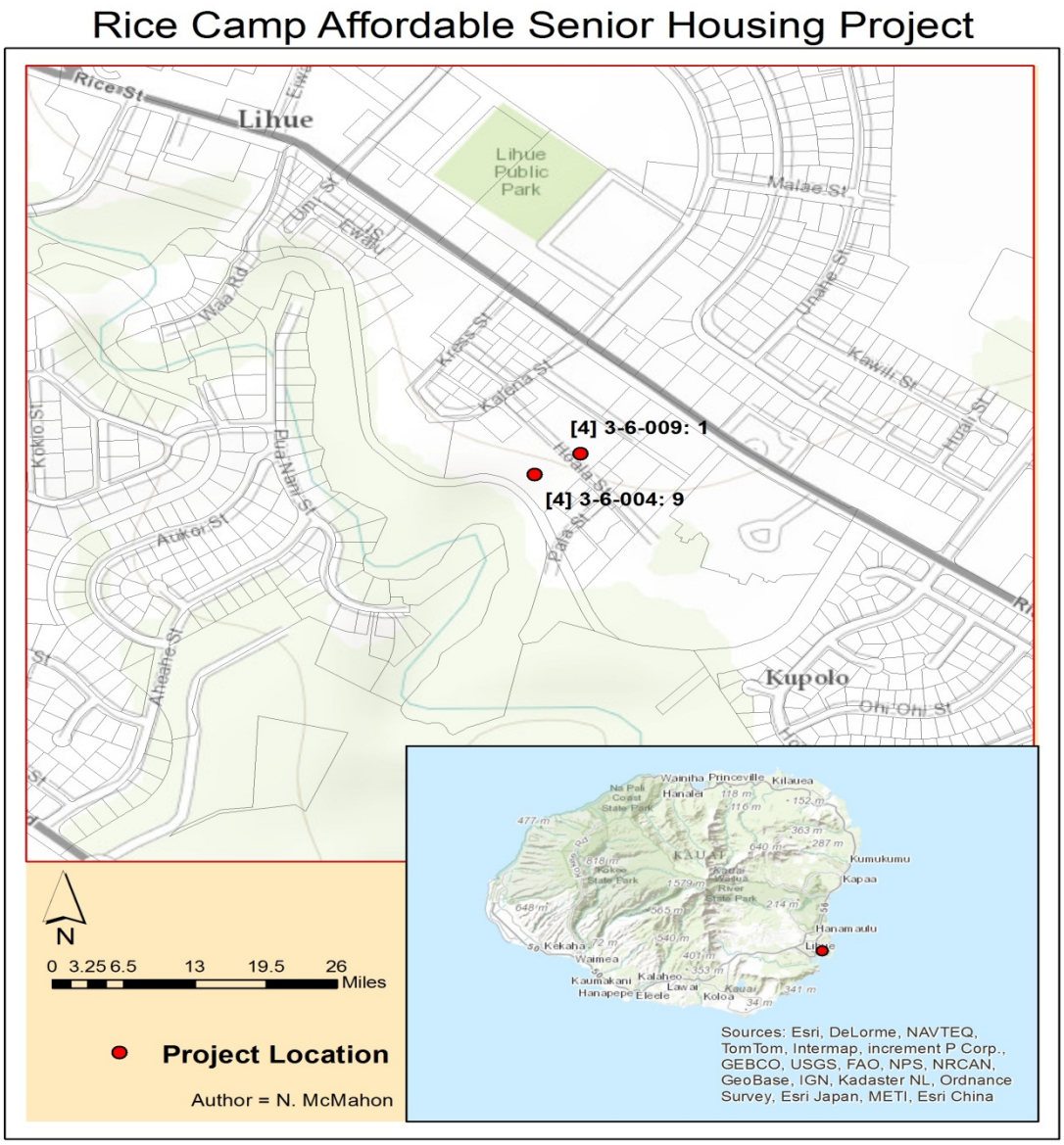


Figure 1. The project area location depicted on the 1996 USGS Līhu‘e Quadrangle 7.5. minute series topographic.

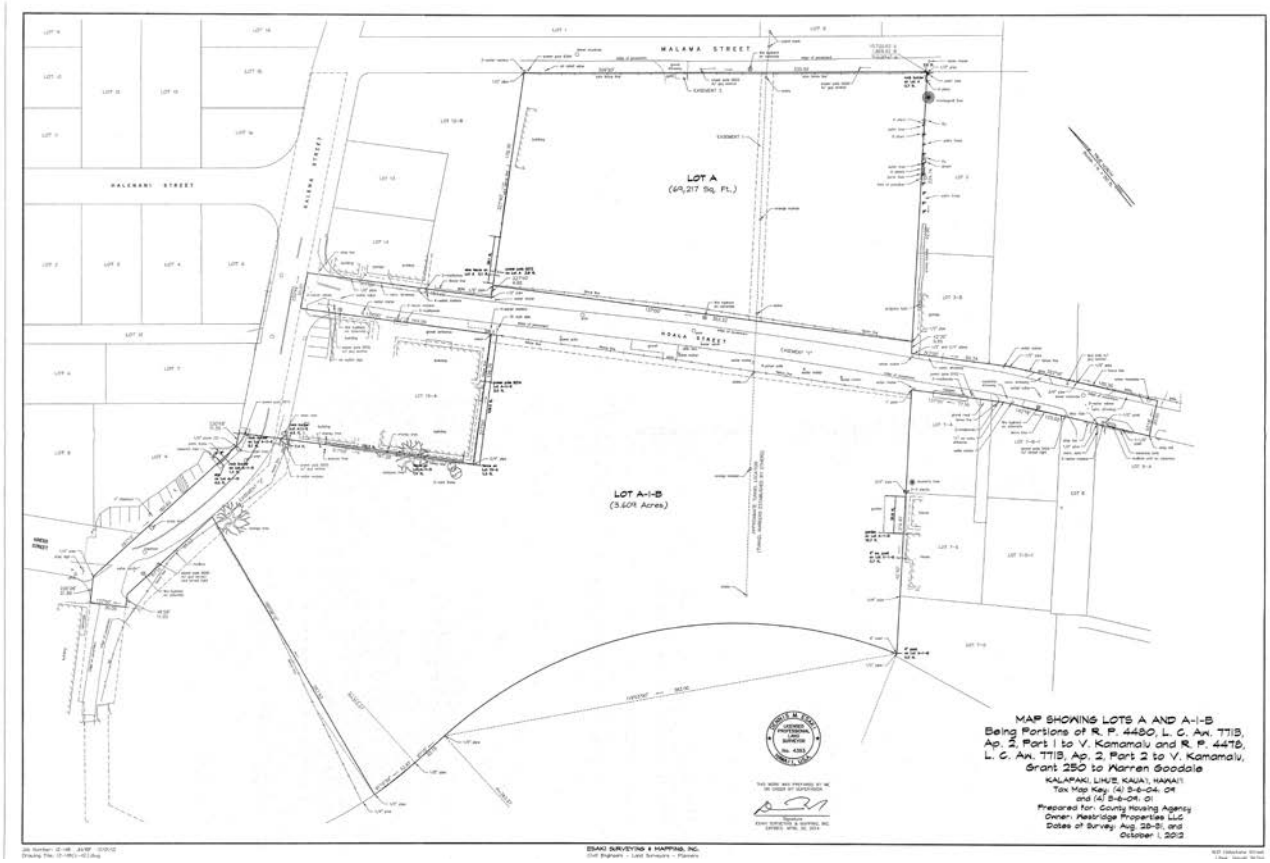


Figure 2. TMK Parcels of the Project Location.

Traditional Background

This section focuses on the traditional background of coastal and near-coastal portions of three *ahupuaʻa* in the *moku* (traditional district) of Puna: Kalapakī, Nāwiliwili and Niumalu; and also includes the adjacent *ahupuaʻa* of Hanamāʻulu (north of Kalapakī) and Haʻikū, Kīpū / Kīpū Kai (west and south of Niumalu) (Figure 3). For the purposes of this background section, the subject project area is defined as the lands forming Nāwiliwili Bay as well as the offshore waters extending out from the bay. Because the proposed project involves multiple *mokupuni* (islands) and because inter-island *pili* (relationships) are a fundamental part of all Hawaiian traditions, more distant connections with other islands are also documented and assessed.

Two major streams, Nāwiliwili and Hulēʻia, drain into the bay. Nāwiliwili stream and its tributaries drain the eastern slopes of Kilohana Crater (1143 feet elevation), which is the *maka* (source) of its *wai* (fresh water). Upland tributaries of the larger Hulēʻia stream drain both Kilohana and Waiʻaleʻale (5080 feet elevation), the latter being the wettest known place on earth with mean annual rainfall of nearly 500 inches; thus, the *maka* of Hulēʻia is both Kilohana and Waiʻaleʻale. The lower portions of these two stream valleys, just inland of Nāwiliwili Bay, were once home to thousands of native Hawaiians living a traditional subsistence lifestyle.

Handy (1940:67) describes Nāwiliwili Valley in his chapter on the main *kalo* (taro) growing locations in Puna, Kauaʻi:

> [Nāwiliwili] For 3 miles inland from the sea the Nāwiliwili River twists (*wiliwili*) through a flat valley bottom which was formerly all in terraces. Inland, just above the bay, three Hawaiian taro planters cultivate wet taro in a few small terraces. Most of the land is [now] in pasture.

Hulēʻia Valley, which is defined by Kīpū Ahupuaʻa (south bank) and Haʻikū Ahupuaʻa (north bank), is also described:

> [Haʻikū] contains the broad delta plain of the Hulēʻia River, 1.5 miles long and about a half wide at its widest point. This area was all in terraces. One large section is now in rice, and four small terraces belonging to four Hawaiian taro planters are in wet taro... Small terrace areas existed along the course of the Hulēʻia for at least 2.5 miles above the delta area... Where the highway crossed the Hulēʻia River at Halfway Bridge, there are groups of old terraces, old breadfruit, and mango trees, indicating that here was a group of *kuleana* something over 6 miles inland form the mouth of the river. (Handy 1940:66)

Traditional fishing villages were once located near the seashore at the north side of the Nāwiliwili Stream mouth—within the footprint of ground disturbance for the subject proposed project; and at Kalapakī, east and north (around and up the coast) of Kalapakī Beach. Loko (fishponds) and small drainages were inland of these settlement areas. The most famous *loko*, known to modern *kamaʻāina* (natives) as the Menehune Fishpond (also Alekoko or Alakoko), is located within the marshy delta (north or Haʻikū side) near the mouth of the Hulēʻia Stream.

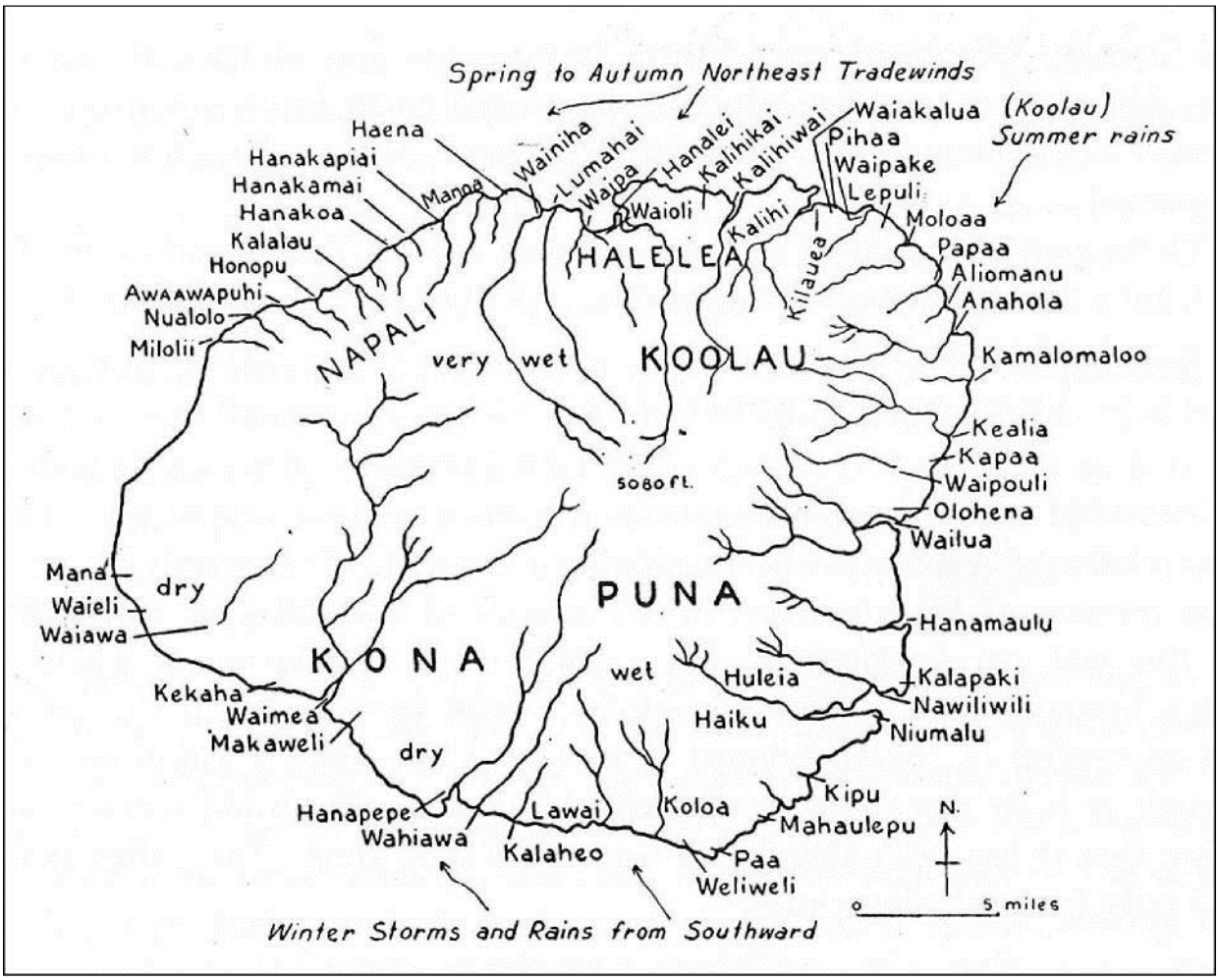


Figure 3. Moku (traditional districts) and ahupuaʻa of Kauaʻi; note the location of "Hanamāʻulu," "Kalapakī," and "Nāwiliwili" (Handy 1940).

Some unique aspects of traditional land use and settlement near the subject project area are discussed below.

Nāwiliwili is well-known for its *heiau* at Kuhiau, reportedly at least four acres in size, and its associated *pōhaku* (rock) called Paukini located in the bay. Kalapakī, famous for its strong trade winds and well-known for its several *heiau*, appears to have had close traditional ties with Nāwiliwili. Hanamāʻulu, directly north of Kalapakī, is probably best known as the birth place of Kawelo, the famous hero and *Mōʻī* (king) of Kauaʻi in the late 17th to early 18th century. Niumalu Ahupuaʻa is probably best known in a traditional sense for the aforementioned Menehune Fishpond, and several other *loko* once located around the mouth of the Hulēʻia Stream. Niumalu is also known for its *puʻu* (hills or mountains) along the high ridge forming Nāwiliwili Bay's south side (e.g., see *moʻolelo* associated with Kalanipuʻu).

Mythological and Traditional Accounts

In Hawaiian Antiquities and Folklore (Fomander, 1918-1919), a pioneering collection of Hawaiian lore, references are made to Kalapakī Ahupua`a, and to Līhu‘e . One of the named Kaual winds, "He waikai ko Kalapakī" refers to the salty fresh water of Kalapakī (vol. 2: 96-97). The place name Lihu`e appears in the "Legend of Uweuwelekehau." Uweuwelekehau and his wife Luukia are being punished: they are stripped of their clothing and sent to Mana [at the west end of the island]. When they reach the plains of Līhu‘e , Luukia complains of her nakedness. Uweuwelekehau tells her that they will find on a nearby hill a pa'u and all manner of kapa, which they do (vol. 2:196-197).

During the 1920s, William Hyde Rice, a life-long resident of Kaua‘i, recorded and collected Hawaiian lore of the island in Hawaiian Legends (1977). In that volume two place names in the vicinity of the present project area--Ninini and Ahukini--are mentioned once each. In "The Goddess Pele":

> Two brothers of Pele who had come from foreign lands, saw Lohiau's body lying as a stone where the lava flow had overtaken him. Pity welled up . . . and they brought Lohiau to life again. One of these brothers made his own body into a canoe and carried the unfortunate Lohiau to Kaua‘i, where he was put ashore at Ahukini. (Rice 1977: 14)

Ahukini in the above quote probably refers to the heiau, which formerly stood in Kalapakī near Ahukini Point on the bluff overlooking the sea, since the name "Ahukini" means "altar of many blessings

In "The Menehunes," a favorite place for their sport of jumping off cliffs into the sea is Ninini: A...little beach surrounded by cliffs, just inside the point where the larger Nāwiliwili lighthouse now stands"; the tale also mentions that part of a large rock from Kīpū Kai is at Ninini (Rice 1977:44).

Place Names

Translations presented without attribution in this subsection are from Pukui et al. (1974), unless indicated otherwise.

Many sources suggest **Nāwiliwili** takes its name from the *wiliwili* tree (*nā* is the plural article, as in “the *wiliwili* trees” or “place of the *wiliwili* trees”). According to Pukui and Elbert (1986), the *wiliwili* (*Erythrina sandwicensis*) is a native leguminous tree whose flowers and pods are used for *lei*, and whose light wood was once used for surfboards, outriggers, and net floats. Handy (1940:67) suggests a *kaona* (hidden meaning) for the name Nāwiliwili based on a reduplication of the word *wili*, which means “twisted,” as in the meandering Nāwiliwili Stream.

According to Hammatt and Creed (1993:22), Land Commission documents indicate the shoreline location of several house lots in Nāwiliwili Ahupua‘a was known as **Papalinahoa.** Kikuchi (1973) states this was the name of “an early chief (*mo‘o*),” but Hammatt and Creed (1993) suggests it may also have been an *‘ili* or the *konohiki.* Papalinahoa was also the name of an *‘auwai* (irrigation ditch)

on the south side of Nāwiliwili Stream, associated with Land Commission Award (LCA) 3566 (Hammatt and Creed 1993).

Pukui et al. (1974) list but do not translate **Kalapakī**, defined simply as a "beach" in Līhuʻe district. Pukui and Elbert (1986) define the word Kalapakī (with a small "k") as "double-yoked egg, *Kauaʻi.*" Aside from its beach and landing, Kalapakī is probably best known in a traditional sense for its *heiau* of **Ahukini** and **Ninini** (and possibly another at Kukiʻi). Ahukini has been translated as "altar [for] many [blessings]" (brackets inserted by Pukui et al. 1974), and this was also the name of a *heiau* in Kaneʻohe, Oʻahu. Ninini has been translated as "pour," as in *ninini wai* (to pour water), Kalapakī was also the name of a village located along the coast. According to Hammatt and Creed (1993:22), Land Commission documents demonstrate that the "village of Kalapakī" was synonymous with the "*ʻili* of Kuuhai."

Niumalu literally translates as "shade [of] coconut trees," but the word *malu* can also refer to "protection" or "shelter." Niumalu's famous fishpond (also called erroneously Niamalu in some older publications) is traditionally known as either **Alekoko** (or ʻAlekoko) or Alakoko depending on the source. According to Kikuchi (1973), **Pepeʻawa** is yet another name for this *loko.* Pukui et al. (1974) do not include either of these names for the *loko* at Niumalu, but there are well known *moʻolelo* references to a pair of brother and sister shark guardian spirits named **Alekoko** and **Kahalalehue** (see below).

Niumalu is known for a series of *puʻu* along the high ridge forming the south side of Nāwiliwili Bay and stretching back to **Haʻupu**. **Kalanipuʻu** (779 ft. elevation), located right above the entrance to the harbor, translates literally as "the royal hill." Traditionally, it is known as a *puʻu kāhea* ("calling hill") from which the locations and movements of fish were monitored. Further *mauka* (up the ridge) is **Kepaweo** (1167 ft. elevation) and **Hokunui** (1608 ft. elevation). Pukui et al. (1974) translated the latter literally as "large star," but *nui* can also mean "supreme" or "greatest."

Pukui et al.'s (1974) entry for **Hulēʻia** refers the reader to **Hulaʻia,** described as an old name for Hulēʻia Stream, which drains into Nāwiliwili Bay.

Hanamāʻulu has been translated as "tired (as from walking) bay," which may be related to *moʻolelo* (oral history) and *ʻōlelo noʻeau* (poetical sayings) about the stingy people of this place (see below).

Līhuʻe (literally translated as "cold chill") became the modern political name for the traditional *moku* (district) of Puna. It is clear that Līhuʻe is a traditional place name, but less certain that the subject project area was specifically called this name prior to the historic era. Historical documents suggest the name Līhuʻe was first applied to this area by Kaikioʻewa (Governor of Kauaʻi) in the 1830s, perhaps after Kaikioʻewa's upcountry residence on the island. On the other hand, Nathaniel Emerson's translation of the famous *oli* (chant) cycle of Hiʻiaka and Pele (see below) mentions Līhuʻe with the other main places names of this area.

It is also well known that Līhuʻe was a traditional settlement area near the current Schofield Barracks on Oʻahu.

Kilohana, source of Nāwiliwili and Hulēʻia Streams, is associated with *moʻolelo* of a boy named Lahi and his uncle (see below); there are multiple possible meanings of the name Kilohana (Pukui et al. 1974 list three: "lookout point," "outer tapa," or "best, superior."

Hāʻupu peak and ridge, located approximately four miles southwest of the project area, is associated with several well-known *ʻōlelo noʻeau* (proverbs and poetical sayings) about observing and predicting weather phenomena in and around Nāwiliwili (see below). Hāʻupu translates literally as "recollection," and Pukui et al. (1974) also suggest it may be named for a demi-god named Pōhaku-o-Kauaʻi, also known as Hoary Head. The great native Hawaiian historian Samuel Kamakau (1961) identified Hāʻupu as a Kauaʻi chief sent by Kaʻumualiʻi to placate Kamehameha I on Oʻahu.

Moʻolelo Associated with Specific Place Names

Several relevant place names are mentioned in *moʻolelo* about the naming of *makani* (winds). For example, Hiʻiaka, a sister of the Hawaiian volcano goddess Pele, chanted a list of winds from Nāwiliwili, Kalapakī, Ahukini, Līhuʻe, Kapaia, and Hanamāʻulu (Emerson 1993, originally 1915):

> He Heone ka makani o Nāwiliwili,
> He Waimua ka makani o Kalapakī,
> He Ehukai ka makani o Ahukini,
> He Pahola ke kiu ho o kii makani lele kula o Līhuʻe ,
> He Kuliahiu ka makani o Kapaia,
> He Hooluakainehe ka makani o Hanamāʻulu.

Kalapakī

According to a collection of Kauaʻi place names by Kelsey (n.d.), Kalapakī has also been known in traditional times as "Ahukini," as in the following *ʻōlelo noʻeau*:

> *Ahukini, oia ka inoa nui o kaʻ aina a hiki Hanamaʻulu.*
> Ahukini is the overall name of the land next to Hanamaʻulu.

Ahukini and Ninini

According to Wichman (1998), Ahukini Heiau was named for Ahukini-a-laʻa (who lived about A.D. 1250), one of three sons of Laʻa-mai-kahiki. An ancestor of the Kauaʻi chiefly lines, with a close relationship to Oʻahu, Ahukini was also *aliʻi nui* (supreme chief) of the Puna district (Wichman 2003).

In the 1920s, the Hawaiian legend chronicler Rice (1974), a life-long resident of Kauaʻi, published this *moʻolelo* about Ahukini in the story of "The Goddess Pele":

> Two brothers of Pele, who had come from foreign lands, saw Lohiau's body lying as a stone where the lava flow had overtaken him. Pity welled up in their heart and they brought Lohiau to life again. One of these brothers made his own body into a canoe and carried the unfortunate Lohiau to Kauaʻi, where he was put ashore at Ahukini. (Rice 1974: 14)

Nāwiliwili

The *menehune* were known to live in the Nāwiliwili area:

> It was one of the favorite playgrounds of the tribe of Menehune, the little brown work-people who played as hard as they worked. And again it is William Hyde Rice, who, more than any other teller of stories, has kept for us old tales of this happy playground...(Damon 1931:395-396)

Niumalu and Hulēʻia

Ching et al. (1973:28) recount, without attribution, the following *moʻolelo* about the origins of Alekoko Fishpond in Niumalu Ahupuaʻa:

> Living in the valley between the Kīpū River [Hulēʻia] and Niumalu resided Ale-koko, the brother, and Ka-lala-lehua, the sister, young chiefs of handsome countenance, who agreed together to construct a fishpond each for themselves. The work on these fishponds was done by the menehunes, it was done in one night (during the night of akua, on which there was a full moon). Stones for the walls were gathered from as far away as the sea beach of Makalii.
>
> (The pond of the brother was built on one side of the river, while the pond of the sister was built in the opposite bend in the river below Kalaeakapapa Point. The menehune women built the sister's pond, and the menehune men built the brother's pond.) As dawn approached the menehunes fled to the mountains. (The sister's pond was never completed.)
>
> The sister, seeing her fishpond was incomplete, was grieved and wept at its unfinished state, while the brother rejoiced at the completion of his. The stones gathered for the sister's pond still remain in the stream to this day.

Ching et al. (1974) describe *moʻolelo* associated with Hulēʻia (originally published in Fornander 1880:227), suggesting its close *pili* with Oʻahu:

> The earliest mention of the [Niumalu] area is legendary dating to 1785. After Kahekili defeated Oahu a number of chiefesses of highest rank were killed. Kekelaokalani made her escape to Kauaʻi bringing with her some Oahu soil, part of which she deposited at Hulaia [Hulēʻia].

Kalanipuʻu

This *puʻu kāhea* directly above Nāwiliwili Bay is associated with *moʻolelo* about Pele's older sister Nã-maka-o-Kahaʻi, who planted *ʻawa* (kava) and *maiʻa* (bananas) upon it (Pukui et al. 1974).

Kuhiau and Paukini

Several historic documents talk about the close connection between Kuhiau Heiau and the *pōhaku* known as Paukini, which marks the *ahupuaʻa* boundary between Nāwiliwili and Kalapakī. Damon (1931:393) writes:

> [Kuhiau Heiau] ... was in its day the largest and most far-famed temple on the island. Below it, in the bay, is still the rock called Paukini, which was said to be its companion or sister heiau, and was probably also the home of the kahuna, or priest, of Kuhiau. In ancient times this rock was connected with the shore near the site of the former boat landing.

Hanamāʻulu

The *moʻolelo* of Kawelo includes many references to Hanamāʻulu. Kawelo-lei-makua was born at Hanamāʻulu. After having become the paramount chief of Kaua'i, he returned to Hanamāʻulu, where he lived with his parents and his wife, Kanewahineikiaoha (Fornander 1918, Rice 1974). The hero of this legend lived in the last half of the seventeenth and early decades of the eighteenth century (Hommon 1976:135).

Rice (1974) recorded this *moʻolelo* about Hanamāʻulu:

> Coming to Hanamāʻulu, Lohiau found all the houses but one closed. In that one were two old men, one of whom recognized him and asked him to enter. The men were making tapa, which they expected to carry soon to Kapaʻa, where games were being held in honor of Kaleiapaoa and his bride, Hiʻiaka. (Rice 1974:14)

The suggestion of inhospitality at Hanamāʻulu recorded by Rice ("Lohiau found all the houses but one closed") is reminiscent of the Hawaiian proverb *No Hanamāʻulu ka ipu puehu,* or "the quickly emptied container belongs to Hanamāʻulu" (Pukui 1983:252). This implies the food containers of Hanamāʻulu were often bare, a plausible reason for the local residents to be stingy; or it may have other political *kaona* (connotations or layers of meaning).

Kalauokamanu Heiau, which means the "tip of the endpiece of the canoe," was described at Hanamāʻulu near the sugar cane mill. According to Wichman (1998), human sacrifice was conducted at this *heiau*, and travelers would pass by the temple quickly, holding their noses to avoid the great stench coming from the dead bodies. According to a study by Lahainaluna School students:

> Kalauokamani [*sic*] was another heiau. It was named for a real woman and this is a little story pertaining to it:
>
> Two men came from Kauaʻi, Uukanipo and Kaipoleimanu. While they lived at Kahikimaiaea, they heard of the beauty of Kalauokamani and went in search of her until they arrived in the upland of Wailua. Kalauokamani was dead but her spirit saw the men, followed after them and asked, "Where are you going?' they answered, "To see Kalauokamani to be our wife." The spirit said, "There is no woman, for she is dead." The spirit again warned them, "Do not go up this way but go down below. There is the woman for you, Moeapakii. Do not go up this way lest you smell the stench of the body of the woman [you seek] for she lies unburied.
>
> The men insisted on going up on the upper side of Wailua and they did smell the stench of the woman and both died. They stand at Kaohokaualu to this day. Both had turned to stone. (Lahainaluna Students 1885, HEN I:218)

Kilohana

Damon (1931) described Kilohana as a famous nesting place of *ʻuwaʻu* (*Pterodroma phaeopygia sandwicensis*), the dark-rumped petrel, a chiefly delicacy. The top of Mauna Kahili, the peak to the west of Kilohana, was a sacred burial place of Hawaiian chiefs. Kilohana is also associated with the *menehune*:

> One of their favorite play places was the little hill of Po-po-pii, Rounded-for climbing-up. This they had themselves built on the top of Kilohana and never were they more delighted than when they could climb it over and over again for the sheer fun of rolling down its sides, frolicking and laughing as they rolled. It was such a sport that their gleeful shouts carried clear across the Kauaʻi channel to the southeast and startled birds at Kahuku on the island of Oahu. (Damon 1931:395-396)
>
> Once, a Menehune called Ka-uki-uki, The-man-of-wrath, boasted that he could climb to the top of this hill at Kilohana and snare the legs of the moon. Ridiculed by his fellow tribesmen, he valiantly attempted to make good his boast, and was turned into a stone when he failed of achievement. For many years this stone was recognized by Hawaiians as a kupua, or demigod, and offerings of lehua-blossoms and fragrant maile leaves were laid upon it in passing, that rain and fog might not hinder the errand which carried the people into the mountains. (Damon 1931:395-396)

Beckwith (1970:331) *Hawaiian Mythology* recounts Rice's (1923) telling of the "Wainiha Story," a *moʻolelo* about bird hunters who lure a giant to his death; and *koa* (warriors) who come to avenge the giant's murder only to be thrown to their deaths by the young bird hunter Lahi:

> Lahi and his uncle Kane-alohi live in the Wainiha valley and go up to Kilohana to catch uwaʻu birds for food, a kind of bird that seeks its nest in the cliffs by day, blinded by the light. Their first enemy is a "giant" whom they lure into a hole and kill. Their next is the chief with "four hundred" soldiers who objects to the depredations among the birds. They sit on a rock eating birds and watching the rippling of the water below for men approaching... They boy hides at the pass and throws all four hundred men over the cliff. The chief comes last and, recognizing Lahi as his own son invites him to the village. He prepares a trap, but this boy discovers and, burning down the house with his treacherous father and followers within, takes over the rule of the land.

Subsistence and Settlement

The *ahupuaʻa* of Nāwiliwili, Niumalu, and Kalapakī were permanently inhabited and intensively used in pre-Contact and early historic times, based on a large amount of archaeological, historical, and oral-history documentation. The coastal areas were the concentration of permanent house sites and temporary shelters, *heiau*, including *koʻa* and *kūʻula* (both types of relatively small shrines dedicated to fishing gods), and numerous trails. There were fishponds at Kalapakī and Nāwiliwili. Further from the current project area, there were numerous house sites and intensive cultivation areas within the valley bottoms of Nāwiliwili and Hulēʻia Streams.

Before the historic era, there was a village at Kalapakī (probably between Kalapakī Beach and Ahukini), and another, likely larger, at Nāwiliwili to the southwest. Another village was located near the mouth of the Hanamāʻulu Stream.

The dryland areas (*kula*) of these *ahupuaʻa* contained native forests and were cultivated with crops of *wauke* (paper mulberry, *Broussonetia papyrifera*), *ʻuala* (sweet potatoes, *Ipomoea batatas*), and *ipu* (bottle gourd). Legends and historic documentation (especially Land Commission records) elaborate on many of these important natural resources.

The archaeological record of early Hawaiian occupation in this area indicates a date range of c. A.D. 1100 to 1650 for pre-Contact Hawaiian habitations (Walker et al. 1991). A radiocarbon date of A.D. 1170-1400 was obtained from excavated sediments near the mouth of Hanamāʻulu Stream.

Land Commission documents indicate a land use pattern that may be unique to this part of the island, or to Kauaʻi, in general, in which *loʻi* (irrigated terraced gardens) and *kula* lands are described in the same *ʻāpana* (portion of land), with houselots in a separate portion. In most places, *kula* lands are defined as drier landscapes and they do not typically occur next to, and among, wetter *loʻi* lands. Also, according to Hammatt and Creed (1993:23), "there are several [LCA] references to other *loʻi* next to the beach which indicate wetland cultivation extending right to the shoreline." This is another type of land use that seems to be fairly unique to Kauaʻi.

Ching et al. (1973: Appendix 6) list some *kapu* (prohibited) resources for the *ahupuaʻa* at Kalapakī (Table 1). These were gleaned from Land Commission documents describing these areas.

Table 1. Kapu resources mentioned in Land Commission documents from the *ahupuaʻa* of Kalapakī, Nāwiliwili, Niumalu, Haʻikū and Kīpū (source: Ching et al. 1973).

Ahupuaʻa	Kapu fish	Kapu wood
Kalapakī	*Akule* (Big-eyed or goggle-eyed scad, *Trachurops crumenophthalmus*)	--
Nāwiliwili	*Akule*	*Koa* (*Acacia koa*)
Niumalu	*Akule*	*ʻŌhia ho*
Haʻikū	*ʻOpihi* (limpets, *Cellana* spp.)	--
Kīpū	*Heʻe* (octopus, *Polypus* spp.)	*Koa*

Heiau

There are several historic map sources showing multiple *heiau* along the seashore and stream mouths in and around the general footprint area of the proposed project (Figures 6 and 7). For the most part, all physical evidence of these *heiau* has been obliterated by historic activities and more recent development. Despite this, however, many people still appreciate the sacred nature of the landscape areas in and around these *heiau* (e.g., the rocky points at Ninini, Ahukini, and Kukiʻi). These differences between western and indigenous ideas about value and significance are rarely

mentioned in cultural impact studies, but they are fundamental to understanding traditional resources.

Lt. George G. Jackson's 1881 map of Nāwiliwili Harbor shows there were major *heiau* on both sides of the mouth of Nāwiliwili Stream (see Figure 4). On the east side, in Kalapakī Ahupuaʻa, Jackson's map depicts "remnants of ancient heiau" near Kukiʻi Point. On the west side of the bay, in Nāwiliwili Ahupuaʻa, there is an area labeled "Kuhiau" near the court house; this was the previous location of Kuhiau Heiau.

In addition to the *heiau* at Kukiʻi and Kuhiau, Damon's (1931) map shows two additional sites located in coastal Kalapakī Ahupuaʻa: Ninini Heiau at the point of the same name, located east of Kukiʻi, and Ahukini Heiau, located about halfway to Hanamāʻulu Ahupuaʻa (see Figure 5).

Bennett's (1931) archaeological survey of the late 1920s documented three *heiau* within the general footprint area of the proposed project (Archaeological Research for Bennett's map). Kuhiau Heiau, SIHP No. 99, located at Nāwiliwili near the site of the old courthouse. By Thrum's time, approximately two decades before Bennett's work, this *heiau* was already described as "long since destroyed" (Bennett 1931:124). Thrum described it as,

> [a] large paved heiau, whose enclosure covered an area of about four acres...The rock Paukini, now separated from but formerly connected with the shore, was where the kahuna lived. This is said to have been the largest and most famous on Kauaʻi in its day. (Bennett 1931:124)

Ninini Heiau (SIHP No. 100) and Ahukini Heiau (SIHP No. 101) were both described by Bennett as totally destroyed. According to Thrum (Bennett 1931:125), Ahukini was "[a] heiau of medium size; foundations only now remain." Thrum's (1907) island-wide listing of *heiau* on Kauaʻi includes another "destroyed" *heiau* called Pohakoelele.

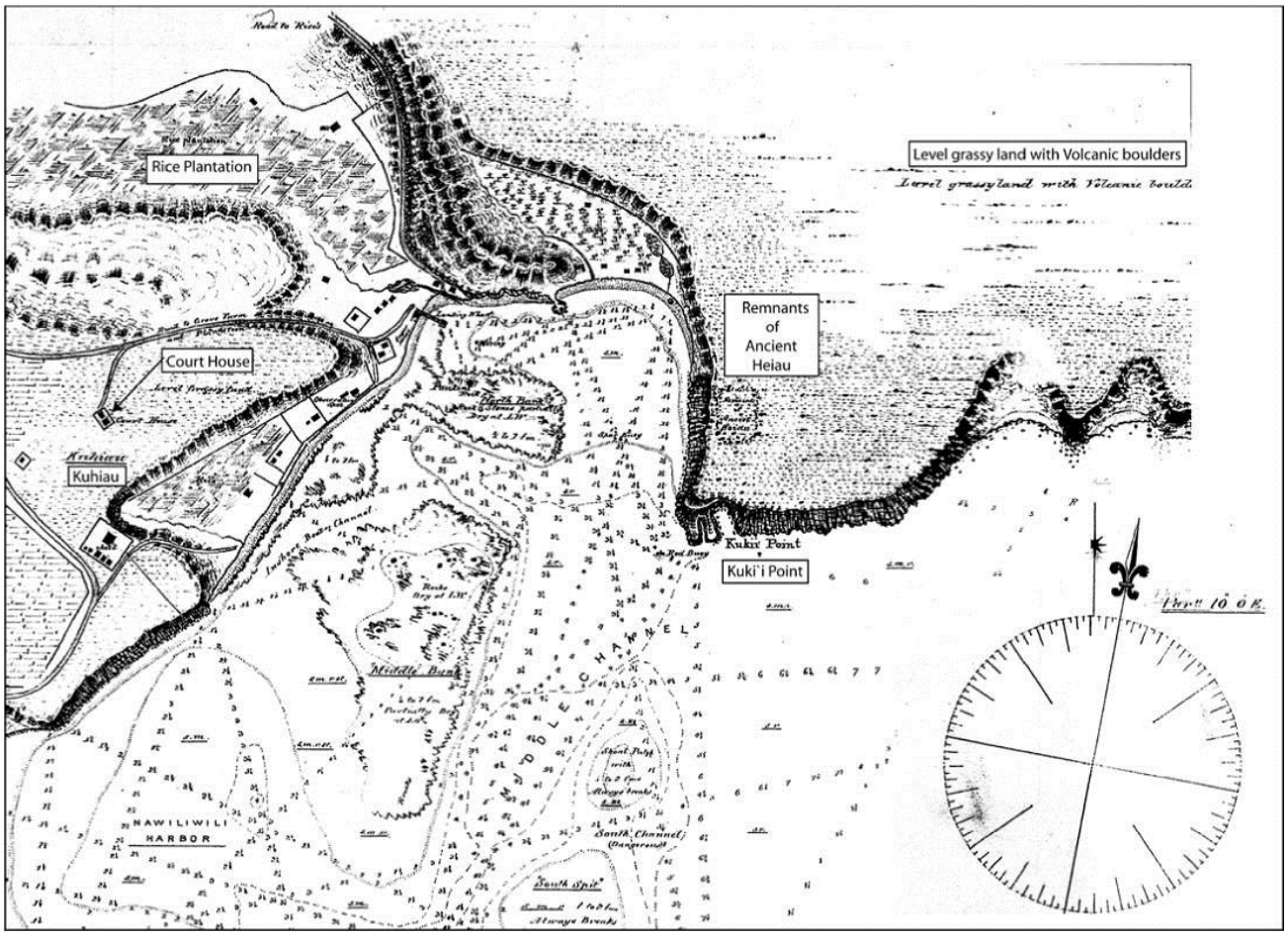


Figure 4. Detail of 1881 map of Nāwiliwili Harbor by Lt. George G. Jackson, showing remnant of ancient heiau near Kūkiʻi Point; also note the area called "Kuhiau" near the court house (left-hand side), previous location of Kuhiau Heiau.

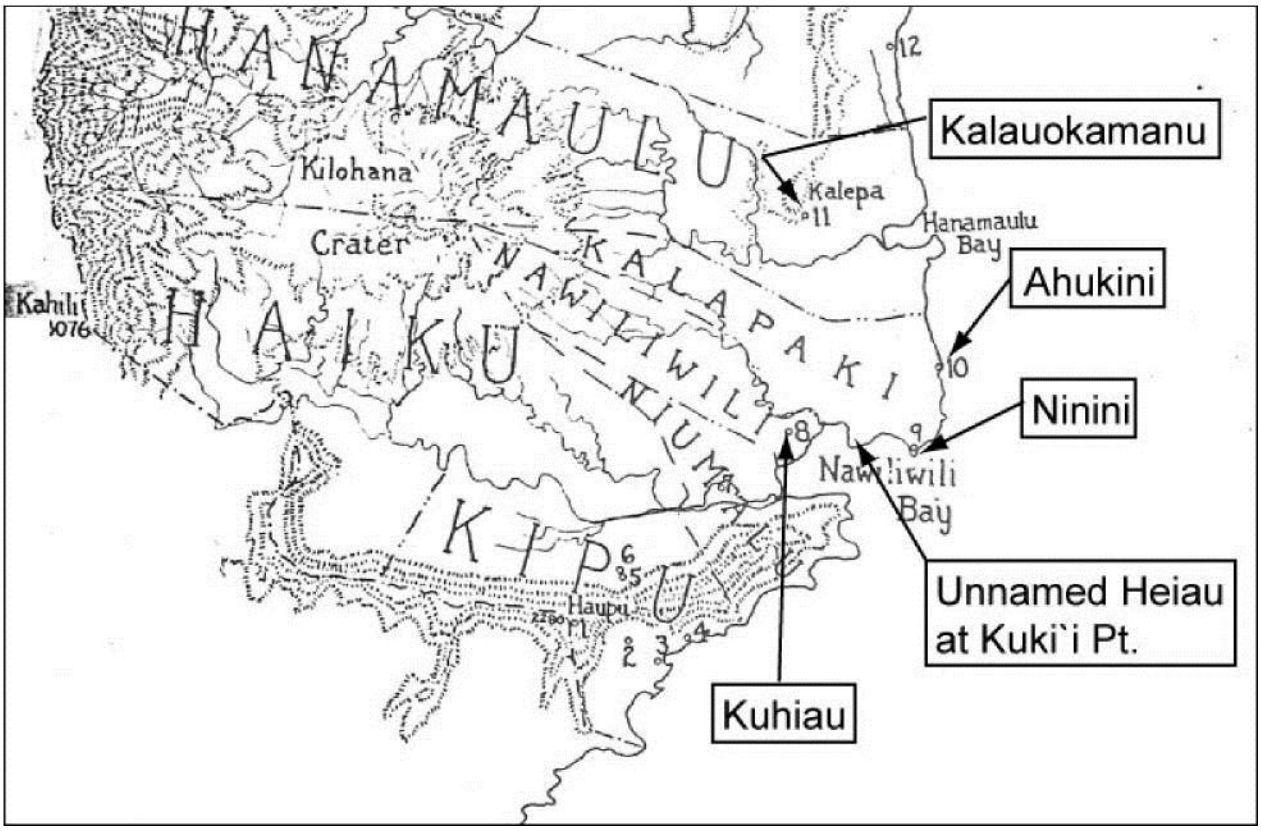


Figure 5. Damon's (1931) map showing heiau along the coastal sections of Puna Moku.

Historical Background

This section is based on prior works by Damon (1931), Hammatt and Creed (1993), Creed et al. (1999), and Ching et al. (1973). Damon's *Koamalu* (a history of the Rice Family) contains excerpts from a large number of 19th century primary sources, including first-hand observations of life and times in and around Līhuʻe / Nāwiliwili. Creed's work, in particular, contains extensive documentation and interpretation of Land Commission documents. Ching et al. (1973) focuses on Niumalu and the lower Hulēʻia Stream. Dorrance and Morgan (2000), Donohugh (2001), Wilcox (1996) and Condé and Best (1973) all document historical aspects of commercial sugar cane, railroads, irrigation, plantations, and other 19th and 20th century changes.

Early Historic Period

The first written accounts of Kauaʻi are from travelers, missionaries, and surveying expeditions. Missionary accounts of first half of the nineteenth century provide the majority of the early written records for this particular part of Kauaʻi. Hiram Bingham's 1820s map of the island (Figure 9) identifies the place names Hulaia [Hulēʻia], Niumaru [Niumalu], Haitu [Haʻikū], and Tipu [Kīpū].

Damon (1931:401) wrote about Bingham's 1824 observations from his memoir, *A Residence of Twenty-One Years in the Sandwich Islands*, published in 1847:

> In 1824, when walking around the island from Waimea to counsel the people after the wreck of *The Cleopatra's Barge*, Rev. Hiram Bingham crossed from Hanapepe,

> as has been seen, over the old upland trail back of Kilohana, and wrote of it as ‘a country of good land, mostly open, unoccupied and covered with grass, sprinkled with trees, and watered with lively streams that descend from the forest-covered mountains and wind their way along ravines to the sea, - a much finer country than the western part of the island.’

In the 1830’s, another missionary, Rev. Peter Gulick, was living on Kaua‘i at Waimea and Kōloa. He made the following observation about the kind of provisions one could find in Hanamā‘ulu at the time:

> ...The governor [Kaikio‘ewa] reached Hanamā‘ulu in his canoe just as we entered on horseback... This is the governor’s custom, when he travels. A man is sent before to give notice that provision may be made, at the different stopping places, for him and his train: which frequently amounts to two hundred [people]... I with a few natives had a comfortable house at Hanamā‘ulu. The inhabitants brought us fish fresh from the ocean, fowls, taro, potatoes, and a pig, all except the fish roasted or baked in the ground... A youth who went with me for the purpose prepared my food. My bed, which was made with mats, was covered with ten tapas; these were the bed clothes which according to custom were presented to the guest for whom they were spread. (Damon 1931:360)

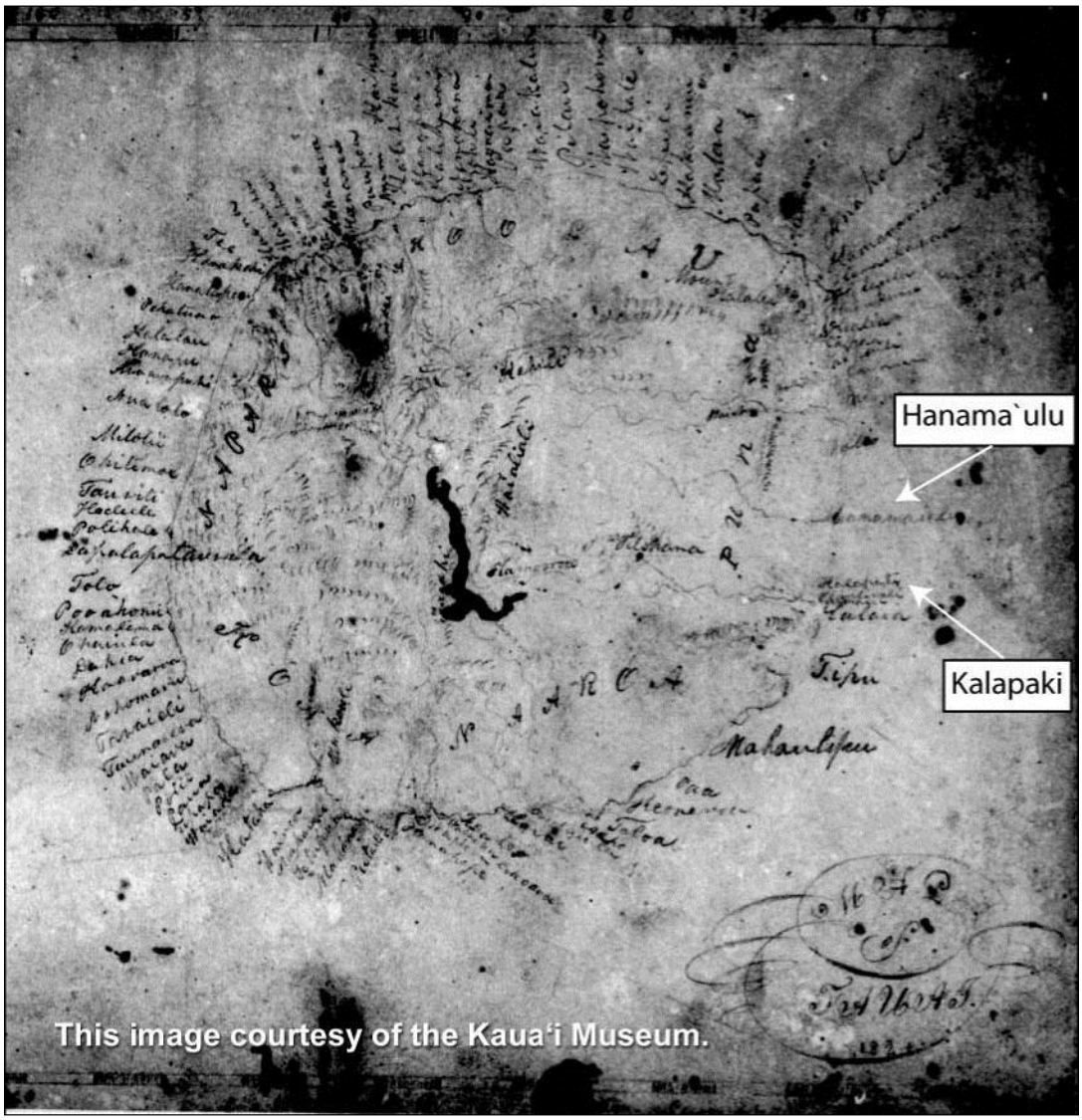


Figure 6. 1820s map of Kaua‘i made by Hiram Bingham showing some place names discussed in the text (source: Kaua‘i Museum).

At this same time, in the 1830s, the Governor (Kaikio‘ewa) founded a village at Nāwiliwili that eventually developed into Līhu‘e. According to Hammatt and Creed (1993), the name Līhu‘e was not consistently used until the establishment of commercial sugar cane agriculture in the middle 19th century; and from the 1830s to the Māhele, the names Nāwiliwili and Līhu‘e were used interchangeably to some extent to refer to a settlement along Nāwiliwili Bay. Some sources attribute the decision to call this area Līhu‘e (literally translated as “cold chill”) to Kaikio‘ewa, who apparently named it after his nearby upcountry home. Waimea and Kōloa were preferred anchorages compared with Nāwiliwili, which opens directly east to the trade winds. Gales were known to blow ships onto the rocks. During the whaling era, Kōloa, which was home to the, earliest major commercial operations in the Hawaiian Islands, was the preferred anchorage because of the ready supply of nearby food stuffs for resupply of the ships.

By 1830, the sandalwood trade had waned and the whaling industry was just beginning. At the same time, commercial agriculture was being established on Kaua‘i. When the first crop of sugar cane was harvested at Kōloa, the king himself commanded that portions of his private land be planted in cane. The Governor of Kaua‘i Kaikio‘ewa in 1839 began farming the slopes of Nāwiliwili Bay where there was more rain than at Kōloa (Dorrance and Morgan 2000). He also built a house and church in Nāwiliwili Ahupua‘a.

Donohugh (2001:94) describes Governor Kaikio‘ewa’s attempt to establish the first commercial sugar mill and plantation in Līhu‘e in 1839:

> During the early decades of Kōloa Plantation, other sugar plantations had started up on the island. One was to result in the ascendancy of Līhu‘e to the principal town and seat of government on Kaua‘i, replacing Wailua. When Kaikio‘ewa was appointed governor, he located his home in what is now the Līhu‘e District. He planned to grow sugar cane but died in 1839 before his plans could be realized. Kaikio‘ewa was responsible for the name [Līhu‘e], which means “cold chill,” the name of his previous home at a higher and chillier altitude on O‘ahu.

Donohugh (2001:94) describes observations by James Jarves, who passed through Līhu‘e in 1838:

> ... [He] found only a church built by Kaikio‘ewa and a few grass houses. He commented the governor had selected Hanamā‘ulu Bay as the harbor, “entirely overlooking the fact that it opened directly to the windward.”

Kaikio‘ewa died in 1839 soon after the start of the sugar plantation, which lasted only one year and closed down in 1840 (Dorrance and Morgan 2000).

Around this time, perhaps as late as 1842, the first missionaries settled in the Līhu‘e area led by Dr. and Mrs. Thomas Lafon, and assisted by Rev. and Mrs. Peter Gulick from Kōloa. Schools were opened, and some missionaries attempted to grow cotton as the first intensive cash crop, but were unsuccessful (Damon 1931).

An account of the United States Exploring Expedition, which passed through Līhu`e in 1840, talks about the area, but also mentions the forced removal of *kama‘āina* from the coastal areas:

> At noon they reached Lihui, a settlement lately undertaken by the Rev. Mr. Lafon, for the purpose of inducing the natives to remove from the sea-coast, thus abandoning their poor lands to cultivate the rich plains above. Mr. Lafon has the charge of the mission district lying between those of Kōloa and Waioli. This district [Līhu‘e] was a short time ago formed out of the other two.
>
> The principal village is Nāwiliwili, ten miles east of Kōloa. This district contains about forty square miles, being twenty miles long by two broad. The soil is rich: it produces sugar-cane, taro, sweet-potatoes, beans, etc. The only market is that of Kōloa. The cane suffers somewhat from the high winds on the plains.
>
> The temperature of Lihui has much the same range as that of Kōloa, and the climate is pleasant: the trade-winds sweep over it uninterruptedly, and sufficient rain falls to

> keep the vegetation green throughout the year. No cattle are to be seen, although the pasturage is good. (Wilkes 1845:67-68)

With the death of Kaikioʻewa, governorship of Kauaʻi was transferred for a brief period to his widow Keaweamahi. Then followed the brief tenure of Chiefess Kekauonohi and her husband Kealiiahonui (son of King Kaʻumualiʻi) after which the governorship passed to Paulo Kanoa in 1848. Kanoa had two houses overlooking Nāwiliwili Bay: one on the bluff south of Nāwiliwili Stream (the present site of Kauaʻi High School) and another at Papalinahoa, north of the bay (Damon 1931).

William DeWitt Alexander, son of Waioli missionary William P. Alexander, traveling from Kōloa to the north shore of Kauaʻi in 1849 recorded some descriptive notes of Hanamāʻulu :

> A few miles further on we crossed the picturesque valley of Hanamāʻulu. This valley is prettily bordered by groves of *Kuku*i, *koa*, & *hala* trees, and is well cultivated with taro. A fine stream flows through the midst of it, which makes a remarkable bend at this place like a horse shoe. We then traveled along the seashore at the foot of a range of hills through groves of *hau*, & among hills of sand. It was now after dark, but the moon shone brightly, and there was no difficulty in finding our way. About eight o-clock we arrived at the banks of the Wailua river. (Kauaʻi Historical Society 1991:121)

One of the last vestiges of the pre-cash crop landscape is depicted in the diary entry for the Rice family's arrival on Kauaʻi in 1854. During the second half of the nineteenth century, western settlers and entrepreneurs set their sights on southeast Kauaʻi. Damon describes the Līhuʻe landscape at the time of the family's arrival at Nāwiliwili Bay:

> From the deck of their river craft in 1854 Mrs. Rice and the children could plainly see above the rocky shore and ruins of Kuhiau, the old heiau, or temple, and nearby on the bluff the flaming blossoms of a great *wili-wili* tree among *koa* trees which ten grew almost down to the water's edge. (Damon 1931:17-18).

Middle to Late 19th Century

The middle 19th century brought great changes to Līhu'e, including private and public land ownership laws known as the Māhele (literally, 'to divide' or 'to section'), ranching, and commercial sugar cane agriculture, which firmly established Līhuʻe's place in state and global economic markets. Coulter's (1931) population density estimates for 1853 (Figure 7) show a relatively large settlement around Nāwiliwili Bay. Each of Coulter's symbols represents 50 people; the map shows approximately 35 symbols, or 1,050 people, in the greater Nāwiliwili Bay area.

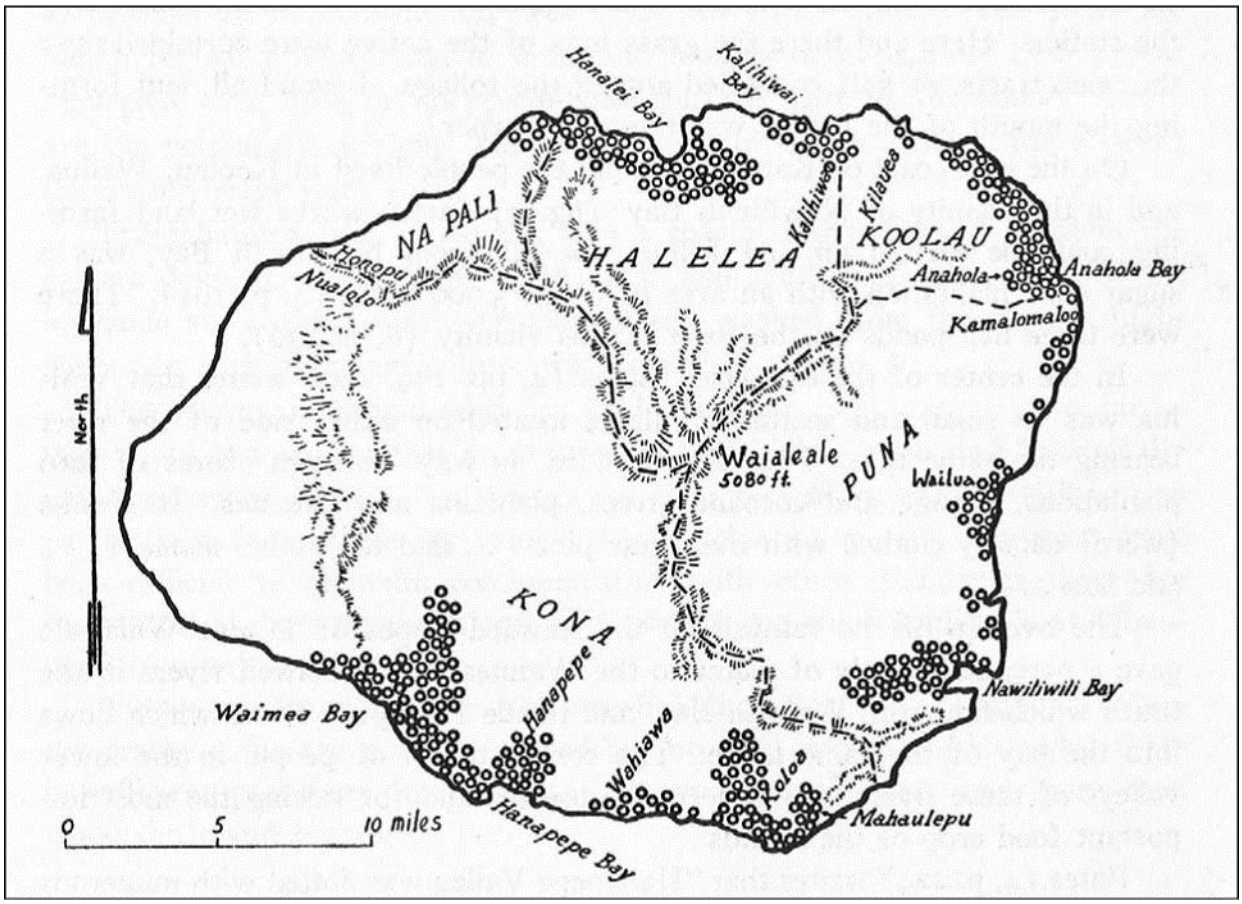


Figure 7. Population estimates for Kaua‘i generated by Coulter (1931), each symbol represents 50 people; with a modest population (150 people) are the coastal boundary between Hanamā‘ulu and Kalapakī.

One of the major changes that negatively impacted the *maka‘āinana* was the introduction of cattle and horses that destroyed vegetation and encouraged soil erosion. According to Ching et al. (1973:25), “[LCA] Testimonies state that some of the lo‘i s in this area were not cultivated due to depredation by cattle before and around 1850.” The authors describe the evolution and impact of the introduction of large ungulates in Kaua‘i and including Hulē‘ia:

> Kaumualii had received cattle and horses from early visitors. These had been allowed to run wild and increased to such an extant that one of the terms of the 1810 settlement had been that Kaumualii was to send some from his stock to Oahu where there was a scarcity. The wild herds gathered in areas of good grazing particularly Wailua and Hulē‘ia, although there were at least 217 government cattle in Kōloa when G.P. Judd sold his private herd in 1847 ... The total of the Hulē‘ia herd in 1846 was 265 ... In 1847 George Charman was hired to take care of the Hulē‘ia herd ... In December of 1850 Miguel (Miela) agreed to take care of the government cattle and horses at Hulē‘ia and Wailua, not allowing them to stray or damage the crops of the foreigners or those of the native Hawaiians. (Ching et al. 1973:25)

The Māhele

In the middle 19th century, during the time of Kamehameha III, a series of legal and legislative changes were brought about in the name of 'land reform' (see Jon Chinen 1958, 1971 for details). Previous to the, all land belonged to the *akua* (gods), held in trust for them by the paramount chief, and managed by subordinate chiefs. Following the enactment of a series of new laws from the middle 1840s to middle 1850s, all land in the Hawaiian Kingdom was divided into three main types: government (or Crown) land; *ali'i* (chiefly) lands; and commoner lands, which *maka'āinana* could in principle obtain in fee simple, following passage of the Kuleana Act in 1850. This act allowed *maka'āinana* (in principle) to own land parcels at which they were currently and actively cultivating and / or residing. In theory, this 'set aside' of hundreds of thousands of acres as potential *kuleana* parcels ultimately led to about 10,000 claimants obtaining approximately 30,000 acres, while 252 chiefs, for example, divided up about a million acres. Many or most Hawaiians were simply disenfranchised by these acts.

Kalapakī

The locations of *kuleana* or commoner land claims of the Māhele (1848-1853) in Kalapakī Ahupua'a are from the shore back into and along the floodplains of the valley land. There were 13 claims in Kalapakī, of which 12 were awarded. The cultivation of "taro" (kalo), the major staple, was along the river flood plains. All the house lots in Kalapakī were at the shore. There were small kula listed for the ahupua'a where presumably sweet potatoes and other produce were grown. The only crop other than "*kalo*" mentioned specifically is *wauke* in Kalapakī. Additionally, more than one claim in Kalapakī mentions the fishponds of Koena'awa.

In Kalapakī Ahupua'a, *kalo* (taro) *lo'i* claims were on the north side of Nāwiliwili River (the *wauke* land in Claim 3907 on the south side of the river being the sole exception) and along the smaller drainages of Kalapakī and Koena'awa, where there were also reportedly springs. Two streams, Koena'awa-nui and Koena'awa-iki, were also identified in the claims, but neither is named on current maps.

Most Kalapakī claimants lived at the shore in the *kulana kauhale*, or, village of Kalapakī, located on Nāwiliwili Bay. Several claimants describe their village house lots in relation to the fishponds of Koena'awa (Koena'awai-nui & Koena'awa-iki). There is also a description of the *muliwai*, or estuary, of Koena'awa-nui. Several other *loko* are mentioned at Kalapakī.

Claim 3640 mentions a footpath for the '*ili* of Limawela near the shore at the boundary between Hanamā'ulu and Kalapakī. These documents therefore indicate a north/south path along the shoreline, and other paths going inland from the shore, which is a traditional transit pattern for Kaua'i *ahupua'a*.

Paulo Kanoa, Governor of Kaua'i at the time of the Māhele, claimed both the *ahupua'a* of Hanamā'ulu and Kalapakī but was awarded neither. Instead, Victoria Kamāmalu was awarded both *ahupua'a* under LCA 7713:2. A portion of this award (7713:2 part 7) includes land within the present project area. Following the death of Victoria Kamāmalu in 1866, Princess Ruth Ke'elikōlani inherited her lands. In 1870, Ke'elikōlani sold large portions of her Kalapakī and Līhu'e lands to William Hyde Rice of Līhu'e Plantation. In addition, in 1870, Paul Isenberg purchased the *ahupua'a* of Hanamā'ulu from J.O. Dominis, which includes the land of the

present airport area. William Hyde Rice made subsequent land purchases from Princess Ruth in 1879:

> William Hyde Rice, who already had his own home on the hill east of the mill, bought a large makai section of the ahupuaʻa of Kalapakī from Princess Ruth in 1879 and there conducted the Līhuʻe Ranch. In later years he sold most of this land to the plantation. (Damon 1931:747)

The large tracts of inland areas (*kula*), not in the river valleys or at the shore, are not described in the claims but were probably in use. This *kula* land at the time of the Māhele belonged to Victoria Kamāmalu. Land use is not elaborated in her claims for Hanamāʻulu or Kalapakī. Traditional *kula* resources for all claimants would have been medicines, herbs, construction materials such as *pili* grass and trees for building houses, canoes, and perhaps lithic materials for tools. Sweet potatoes and other dryland crops, such as *wauke*, probably were cultivated in patches throughout the area at one time or another.

Additional details for Kalapakī LCAs can be gleaned from Native Testimony (erroneously entered as "Foreign Testimony," a common error) and Native Register documents compiled by Hammatt and Creed (1993) (see Appendix A).

Cattle, introduced by Vancouver, had at first been under a royal *kapu* and were allowed to roam freely and reproduce. Within a few decades cattle had begun to wreak havoc on village gardens and taro lands and homes. Residents either abandoned the land destroyed by roaming cattle or else started building walls to keep the cattle out of their homes and gardens. Hulēʻia, an *ahupuaʻa* to the south of the project area, was claimed by Victoria Kamāmalu during the Māhele, as a preserve for cattle (Māhele information). Apparently, as the report by Wilkes suggests, the people of Līhuʻe had so far been safe from such depredation (ca. 1840s).

From early maps, it appears Rice Camp was actually called Stable Camp. Various maps at the Kauai Historic Society show no Rice Camp name but say to the Stables or Stable Camp. It appears it became known as Rice Camp in honor or William Rice. Conducting research for the name Rice Camp, two other locations on the island are found, one in Kealia and one in Hanalei. There are a few stories and a website from former residents who talk about their life growing up in this Rice Camp/Stable Camp.

Other Sources

In William Hyde Rice's Hawaiian Legends (discussed above), Rice's granddaughter Edith Rice Pleus notes that Kalapakī in the 1920s comprised fertile lands. She probably referred to the extensive plains or *kula* lands existing prior to use for commercial sugar cane. The cultivation of sweet potatoes, gourds and *wauke*, and other dryland crops would have dominated land use in these *kula* lands.

A document listed only as Land Matters, Document 11 with no date in the State Archives refers to *konohiki* rights (either prior to or contemporary with Land Commission claims since the *konohiki* received their claims after the ali'i and before the *kuleana* awards). The konohiki had proprietary rights to fish caught in the bay fishing. Document No. 11 lists *ana'e* as the protected fish of Hanamāʻulu, and *uhu* for Kalapakī. These protected fish are part of the konohiki resources, which he or she would use to meet his/her obligations to superior chiefs,

governors/governesses and the King or Queen. Wikolia is listed as the *konohiki* for Wailua, Hanamāʻulu, Kalapakī, Nāwiliwili, Niumalu, Haiku, Kīpū, and a few other places. The proper procedure for fishing in the bay would be when:

> the proper fishing season arrives all the people may take fish, and when the fish are collected, they shall be divided - one third to the fishermen, and two thirds to the landlord (Kosaki, 1954:14).

And the protected fish might all be for the *konohiki*.

One of the last vestiges of the pre-cash crop landscape is depicted in the diary entry for the Rice family's arrival on Kauaʻi in 1854. During the second half of the 19th century, western settlers and entrepreneurs set their sights on southeast Kauaʻi. Ethel Damon, in Koamalu, her history of the Rice family of Kauaʻi, describes the Līhuʻe landscape at the time of the family's arrival at Nāwiliwili Bay:

From the deck of their river craft in 1854 Mrs. Rice and the children could plainly see above the rocky shore and ruins of *Kuhiau*, the old *heiau*, or temple, and nearby on the bluff the flaming blossoms of a great will-will tree among *koa* trees which ten grew almost down to the water's edge (Damon 1931:17-18).

These early written documents describe a good land with a nice climate and plentiful provisions for the traveler. Residents of the land live near the ocean and fishing villages are scattered along the shore; and at that time at Kalapakī many trees grew right down to the water's edge (e.g. *koa* and *wiliwili*).

While foreigners may have seen the shoreline as unproductive, Hawaiians would have disagreed. The indigenous settlement pattern indicates that the shoreline was the locus for villages like Kalapakī at the mouth of Nāwiliwili River and "Hanawale" perhaps a village near Hanamrulu Bay. Shoreline areas were certainly favored for fishing, swimming, surfing and residence. Depending on the distances, they may have had temporary residences among their agricultural lands and even in the uplands while gathering materials for house or canoe building. Others resided inland near their fields, but would have traveled around to acquire needed or desirable resources.

Commercial Sugar Cane Agriculture

As a direct result of the availability of large tracts of land for sale during the Māhele, in 1849, Līhuʻe Plantation "was established on the site Kaikioʻewa had chosen, and the cluster of homes and stores around it was the start of the town of Līhuʻe." (Donohugh 2001:94). The plantation was started by Henry A. Pierce, Judge Wm. Little Lee, chairman of the Land Commission, and Charles Reed Bishop, doing business as Henry A Pierce and Company (Damon 1931). The first 3,000 acres were purchased in Nāwiliwili and an additional 300 acres were purchased in Ahukini in 1866. The Līhuʻe Plantation became the most modern plantation at that time in all Hawaiʻi. It featured a steam-powered mill built in 1853, the first use of steam power on a Hawaiian sugar plantation, and the ten-mile-long Hanamāʻulu Ditch built in 1856 by plantation manager William H. Rice, the first large-scale irrigation project for any of the sugar plantations (Moffatt and Fitzpatrick 1995:103). Dorrance and Morgan (2000:28) provide a slightly different list of

achievements for Līhuʻe Plantation: "The first irrigation ditch in Hawaiʻi was dug in 1857 [at Līhuʻe], and in 1859 the first steam engine in a Hawaiʻi mill was installed at Līhuʻe Plantation."

The residential and administrative heart of Līhuʻe Plantation was located in the western portion of the subject project area, now downtown Līhuʻe, Kauaʻi's political center and most developed area. There are many documentary resources about the history of commercial sugar cane in Līhuʻe (see, e.g., the Kauaʻi Museum's website, http://www.Kauaimuseum.org and Kauaʻi_Historical Society's website, http://www.khs.org). Dorrance and Morgan (2000) have summarize highlights of the history of both the Līhuʻe and Hanamāʻulu Plantations (see pp. 28-29), and there are other, more detailed histories of these operations (e.g., Condé and Best 1973; Wilcox 1996; Donohugh 2001).

The success of the Līhuʻe Plantation allowed it to continue to expand. When the owner of Hanamā'ulu Ahupuaʻa, Victoria Kamãmalu, died in 1870, all 9,177 acres in the *ahupuaʻa* were purchased by Paul Isenberg, the manager of Līhuʻe Plantation from 1862-1878 (Damon 1931:742-747). By 1870, the plantation owned 17,000 acres in Hanamāʻulu. A total of 30,000 leased acres in Wailua were later added in 1878. Līhuʻe Plantation built a second mill in 1877, north and west of the present airport, recorded in an 1885 map of Hanamāʻulu Bay by Lt. George G. Jackson. This mill operated until 1920, when it was converted into housing for laborers.

Changing District Names

The traditional districts, or *moku*, of Kauaʻi were replaced in the middle to latter part of the 19th century by modern political-district names (Figure 8). Given its economic importance to the island, Līhuʻe became the modern district name, as described by Rice:

> The name, Līhuʻe , applied in a larger sense, included the districts of what are now Kawaihau and Līhuʻe , reaching from Anahola to the Gap, being made so by law in about the year 1861, according to early court records, but some years later divided into the present two districts. The large district was also known as the Puna district, and is found on early maps as such. It was August thirteenth, 1880, that the district was divided into two, by act of Legislature with King Kalãkaua's signature. . . . Līhuʻe , in a local sense, and from which the name of the district was derived meant only that little portion of land upon which the present village, as consisting of bank, post office and store, now stands (Rice 1914:46).

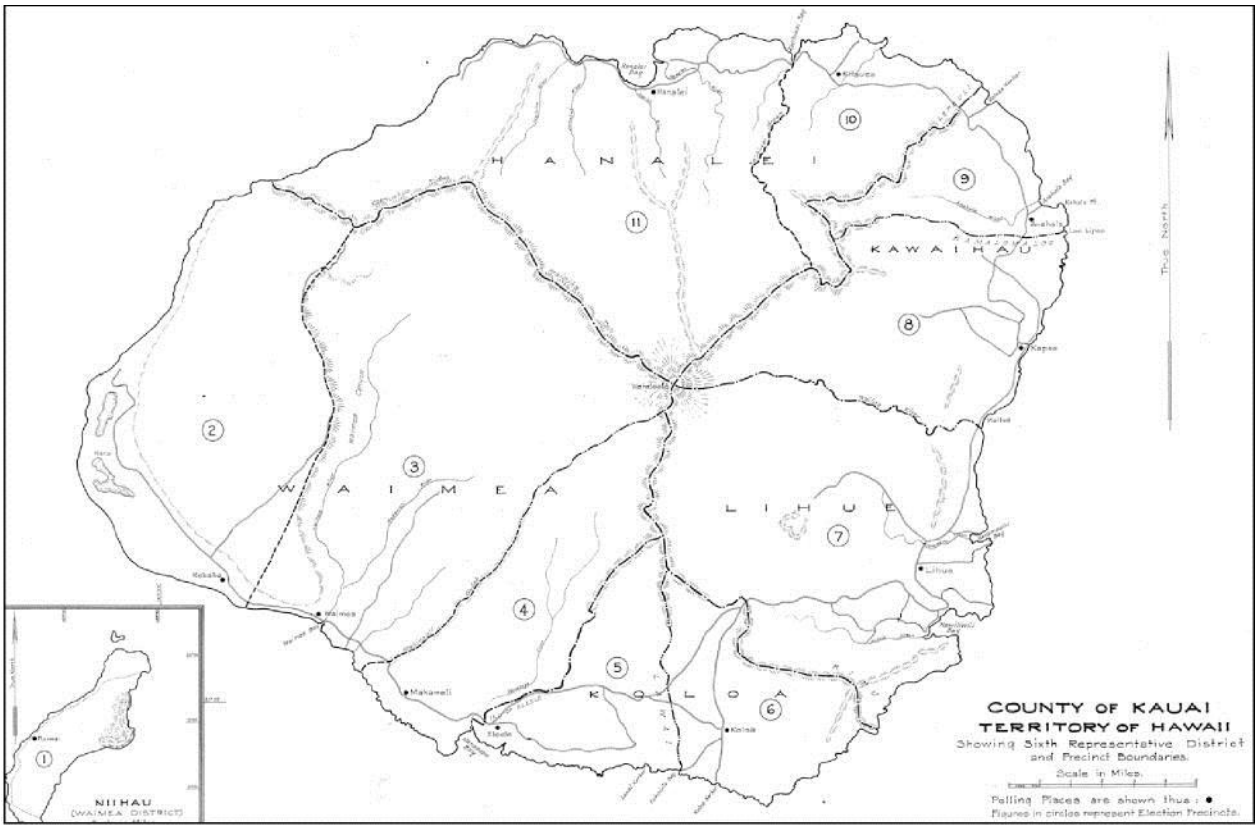


Figure 8. 1936 map of the political districts of the County of Kaua‘i, Territory of Hawai‘i.

Later 19th century

Māhele records indicate that taro continued to be cultivated in Nāwiliwili Valley through the middle 19th century. However, later in the century, much of the *kalo* land in Nāwiliwili was converted to rice cultivation. This shift was dictated by changes in the ethnic make-up of the islands’ population and economic demands. Little is known of the rice industry in Nāwiliwili; however, an 1881 map of Nāwiliwili Bay shows the entire *makai* portion of Nāwiliwili Valley under rice cultivation. Early 20th century photographs in the Bishop Museum Archives show large rice terraces within the valley. Rice was also grown in the flatlands *makai* of the *pali* of Kuhiau.

Historic maps show most of the area near the project, was in commercial sugar cane agriculture by the late 19th century (Figure 9), but this would change by the early 20th century when nearly the entire subject project area was plowed under for cane. Sugar cane cultivation transformed the traditional landscape of Kalapakī into plantation landscape. By 1931, Līhu‘e Plantation had 6,712 acres in cane. The plantation's field map of 1941 (Figure 10) shows sugarcane covering the entire coast and the present project area. Līhu‘e Plantation "developed a water collection system second only to East Maui Irrigation Company ... Altogether there are 51 miles of ditch and eighteen intakes" (C. Wilcox 1996:68). Railroads extended across the plantation to and from the shipping facilities and beyond the plantation itself to other plantations.

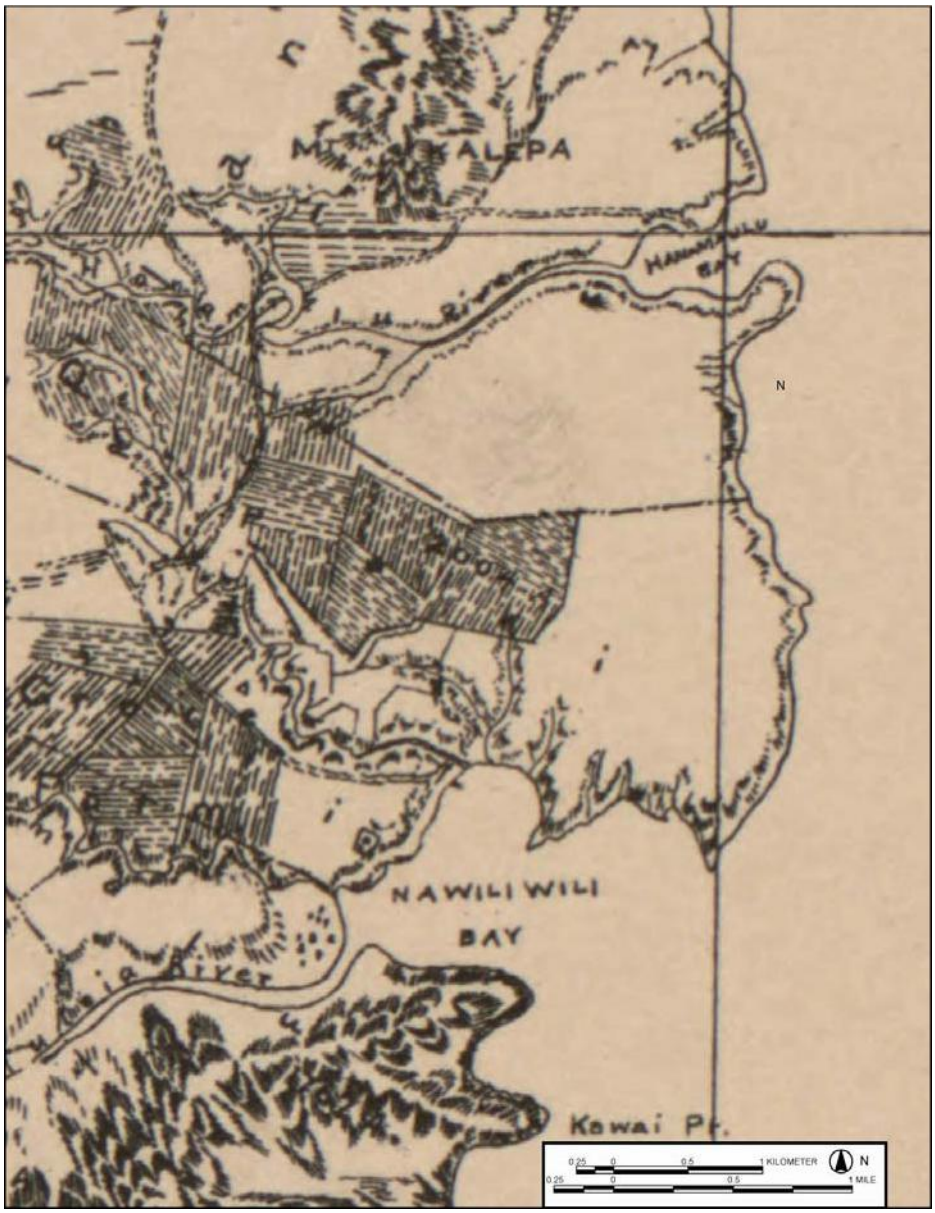


Figure 9. 19th Century Land Use of Līhu‘e

According to Dorrance and Morgan (2000:24-25), there were at least four different major sugar cane operations (i.e., mills and / or plantations) in the near vicinity of the subject project area during the later 19th century, including the Līhu‘e and Hanamā‘ulu Plantations (founded 1870, closed 1898) as well as the Hanamā‘ulu Mill Company (founded 1870, closed 1880) and Charles L. L’Orange (founded 1882, closed 1888).

In 1870, the Līhu‘e Plantation Company bought up approximately 17,000 acres of undeveloped land in Hanamā‘ulu, which were then used to grow sugar cane and to capture and deliver water to both plantations. Later, in 1870, George N. Wilcox started the first sugar cane plantation in Hanamā‘ulu, the Hanamā‘ulu Plantation (Dorrance and Morgan 2000). In 1898, Hanamā‘ulu Plantation was merged into Līhu‘e Plantation.

Līhuʻe Plantation

Commercial sugar cane agriculture continued in Līhuʻe until 2000, when it and the Kekaha Sugar Co. finally shut down and terminated approximately 400 workers. The nearby Kīpū Plantation, founded in 1907, operated until 1942 (Dorrance and Morgan 2000).

Līhuʻe Plantation remained a vibrant and successful commercial operation throughout most of the 20th century, in part, because of a continued interest in technological innovation (Figure 16). For example, in 1912, Līhuʻe Plantation installed two 240-kilowatt generators above the cane fields on the slopes of Kilohana Crater, becoming one of the first hydroelectric power producers (along with Kekaha, Kauaʻi) in the Hawaiian Islands (Dorrance and Morgan 2000).

There are many first-hand recollections about life in the early 20th century plantation days of Līhuʻe, including extensive documentary archives maintained by the historical museum at Grove Farm Homestead.

The following example, which appeared in the *Honolulu Advertiser* (24 April 2000), and was written by Jan TenBruggencate, describes the struggles of 78-year-old Tadeo Suemori to keep his house at the so-called Rice Camp. Suemori was born and lived his whole life at this house, which was previously one of a total of 18 plantation cottages on a 14-acre parcel owned by Wm. Hyde Rice, Ltd. When the landowner began moving people out in 1989 to sell the property to the museum, Suemori refused to vacate: "They never evicted me. I said, "I ain't moving out.'" (TenBruggencate 2000:B-1). He was eventually allowed to rent the place for the remainder of his life, but had wished to restore and rehabilitate the old Rice Camp. The article continues:

> He is concerned about the environment, and particularly about pollution in Nāwiliwili Stream, which runs below his house. It was clean when he and his childhood friends' skinny dipped there while the U.S. stock market was crashing in 1929. It was the place where they caught prawns and *ʻoʻopu* and frogs...Today the stream runs brown and smells bad. Only a few frogs and mosquito fish live there. That angers Suemori. He wants someone to clean it up. (TenBruggencate 2000:B2)

According to the article, the Grove Farm Homestead Museum director hoped to document Suemori's oral history, which includes knowledge of many Hawaiian-Portuguese, Chinese-Hawaiian, Japanese, and Spanish-Filipino families that used to live nearby.

Another story has been published on the web (2013) [www.kauaistories.net/growing_up_on_kauai]. The story is about Henry Yamanaka who grew up in the 1930s and 40s in Rice Camp. Henry was a teacher and administrator for the Department of Education. It is unclear if this Rice Camp is the same as the project location. He states this was housing for Kīpū Sugar Plantation workers. He remembers Hamano Store which no longer exists. He went to Hulēʻia School. They use to fish for black bass called Charlie Fish in one of the plantation reservoirs called Turning, along with *papio*, mullet, gobi, and *holiholi* in Hulēʻia River and catching Samoan crabs and frogs. But his best description is of the plantation house he lived in: wooden, four bedrooms, and one living room, the kitchen being separate adjoined by a walkway. He also noted that the milk wagon came every morning delivered by the Clydesdales.

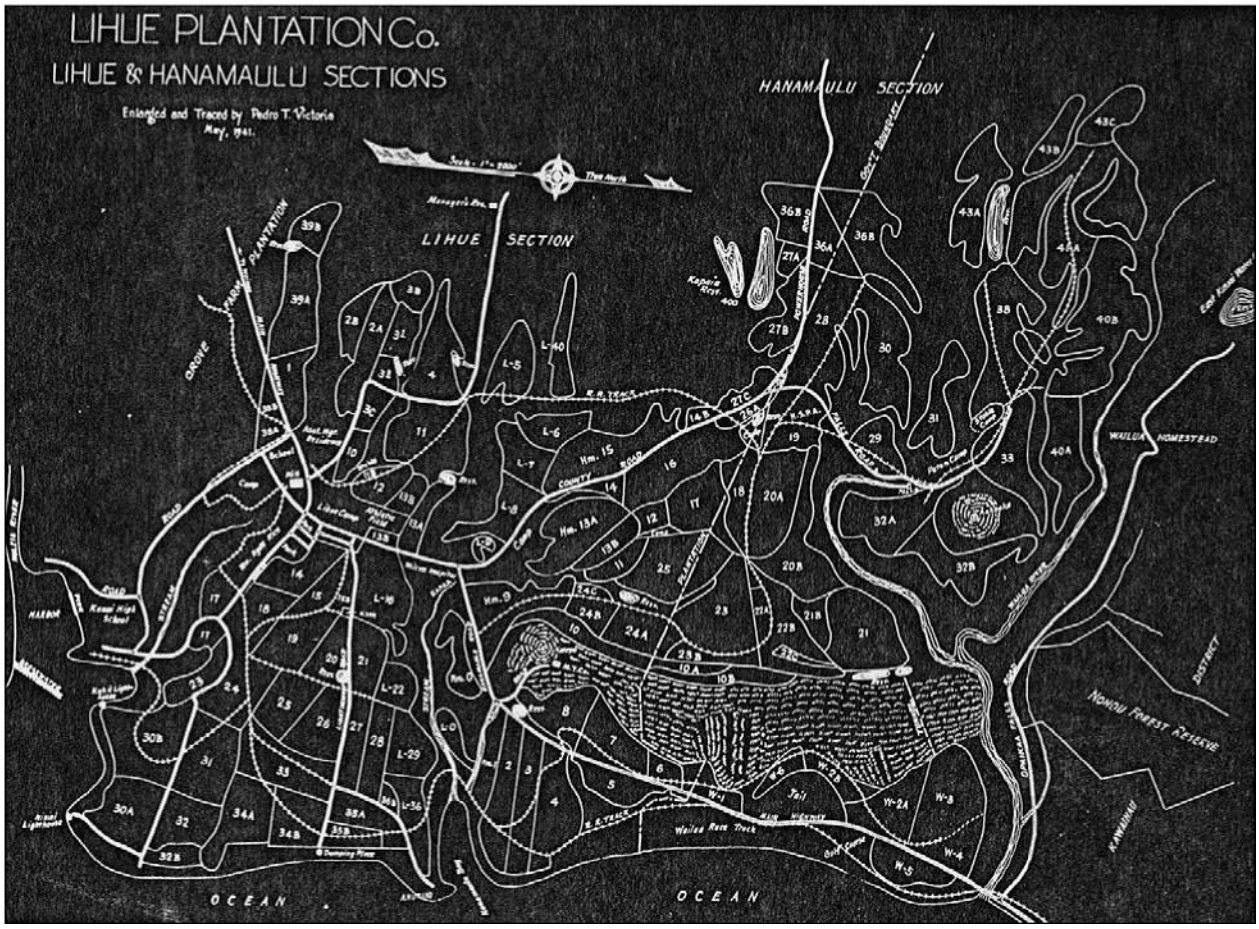


Figure 10. Līhu‘e Plantation Co. in 1941 with subject project area left-hand portion of the image with the name Wm Hyde Rice and rail lines (source: Condé and Best 1973:168)

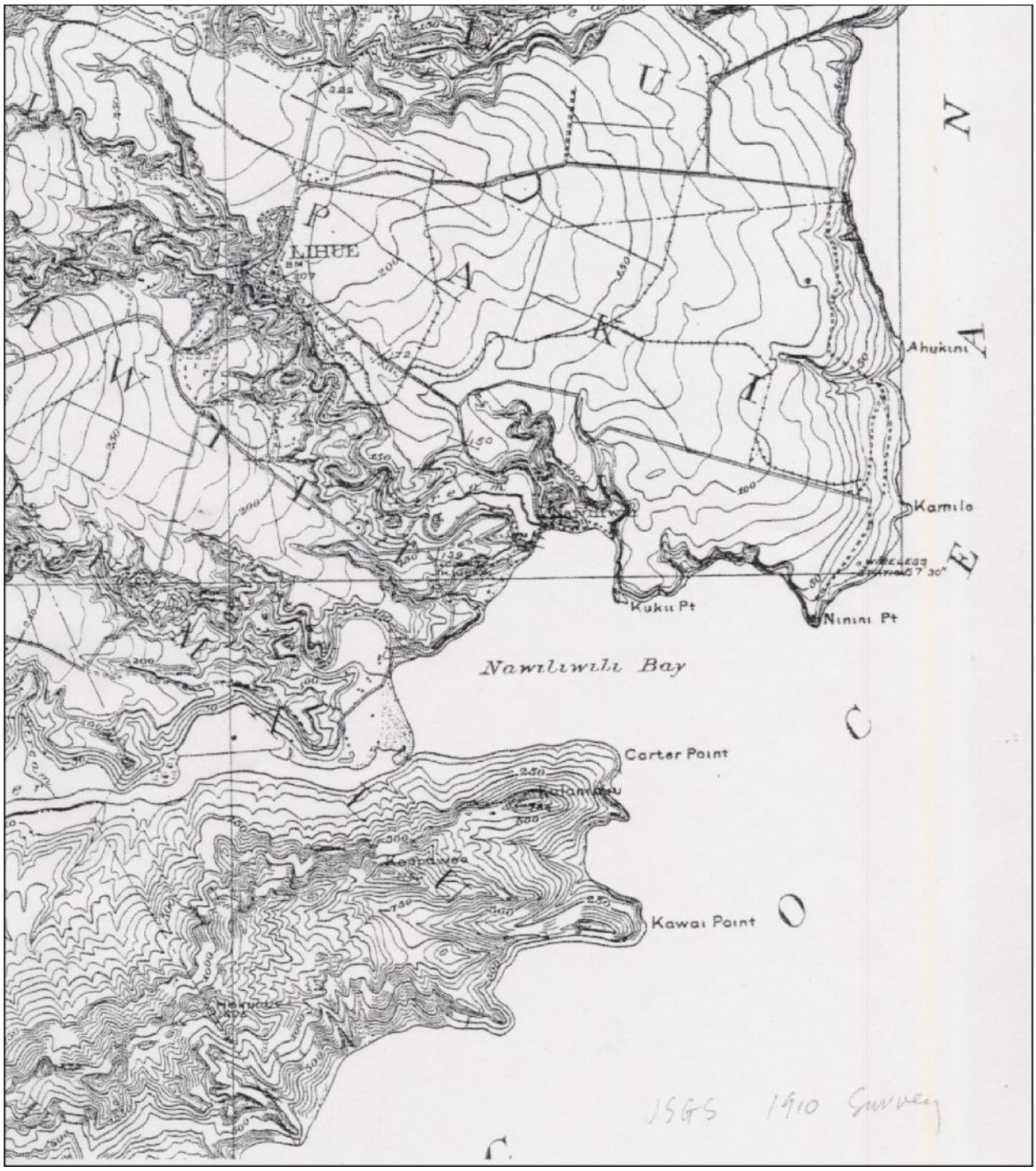


Figure 11. Portion of 1910 US Geological Survey map of Līhu‘e and the subject parcel to its immediate north and rail lines.

Rice production was an off-shoot industry of the sugar plantation in the 1870s, since many of the new Chinese plantation workers began to grow rice for themselves and then for trade with California. Japanese immigrants, by the end of the 19th century did the same and took over many of the Chinese rice paddies. Growing and milling rice also became a means for immigrants to leave the plantations after their indenture period. Field note drawings (1885) by Lt. Geo. G.E. Jackson, a cartographer for Territory of Hawaii in the early 1880s show rice fields at the mouth of Nāwiliwili River in the estuary and he shows a few houses left in Kalapakī Village. In general, rice planters used abandoned taro

fields, but made the patches larger than the traditional taro patch. This is probably true of the Kalapakī floodplain.

Jackson's drawings also show that the Kalapakī land north of Kukii Point, where the airport now lies, as a "level grassy land with volcanic boulders," showing no cane cultivation in 1885. Gay and Kittridge's map of 1898 still shows the same "stony land" and notes its use as a goat and sheep pasture.

Līhuʻe Plantation owners and managers were concerned about reforesting their landscape, to make it more fruitful, productive, and pleasant. Forests, which would have existed possibly down to the sea, had been cleared during the sandalwood era, and perhaps earlier. Former forest lands were barren by the time the plantation management controlled the land. A major reforestation plan was carried out.

Ethel Damon records that early settler, Richard Isenberg,

> often looked out on to the bare slopes of Mount Kalepa, said later by Chief Forester C.S. Judd to have been covered formerly with a growth of sandalwood. On his departure Richard Isenberg left funds for the planting of ten acres on Kalepa hill to young ironwood. Today a roadway up this hill has been constructed for Kauaʻi's first wireless telephone station, Ka Lepa, The Signal Hill, thus resuming what is said to have been its ancient importance as a peak for signaling messages. (Damon 1931:913)

A major reforestation effort was also carried out on Kilohana Crater:

> Paul Isenberg engaged a German forester who remained on Līhuʻe Plantation for five or six years and then returned to the Prussian Forest Service after passing much of his knowledge on to others here. His first and principal task was to plant and tend a young forest on a tract of valley and a ridge of about 300 acres on the eastward slope leading up to Kilohana crater. This is often called the German Forest and was, as far as is known, the first extensive attempt at reforestation anywhere on the islands. ... The Pride of India was finally chosen, as a tropical tree long a denizen of the islands, and some Australian ironwoods where also propagated for the purpose, as far as seed could be obtained. The albizzia, known as the white-flowering monkey pod, was also largely planted in the valleys, and has proven a useful tree, having one characteristic of the Hawaiian *hau*, its branches sprouting easily when cut off and inserted in the ground as fence posts. (Damon 1931: 772)
>
> In the course of a few years it was evident that the Pride of India was not well adapted for these wind-swept slopes, and Manager Carl Isenberg set out thousands of koa seedlings, a hard wood native to those ridges and a lusty child of Hawaiian forests. ... So dense did the shade become at one time that hundreds of the koa trees were cut out for firewood. (Damon 1931: 773)

While the plant species of the plantation landscape changed so did the architectural landscape. The sugar plantation infrastructure included ditch systems, railroads and engine houses, bridges, interisland shipping storage facilities and housing. Today, the remnants of this commercial sugar cane landscape can still be seen around or near the airport.

By the end of the 19th century there was not much fishing on Kaua`i even though the waters were said to teem with fish "largely accounted for by the fact that the efforts of the islanders are devoted almost exclusively to sugar-cane growing, in which more money can be made than in fishing" (Cobb 1902:498). However, the ocean and shoreline, which had been so integral to the traditional Hawaiian way of *life* in Kalapakī and neighboring lands, began to take on importance with growing harbor facilities of the early 20th century.

Archaeological Research

This section focuses on relevant previous archaeological research from coastal and near-coastal areas of Kalapakī, Nāwiliwili and Niumalu Ahupuaʻa; in particular, prior research and results from in and around the footprint area of the proposed harbor improvements. Collectively, these observations provide some expectations regarding the types of cultural and historic resources that may be located in or near the subject project area. Figure 12 shows historic properties that have been documented in and near the project area as a result of these studies.

This archaeological review is based on several prior reports documenting the results of an archaeological inventory survey of the proposed impacts of improvements to Līhuʻe Airport (Bell et al. 2006); and other original source materials from archaeological studies of the specific coastal area of concern (Creed et al. 1999; Hammatt 1988, 1990; Neller and Palama 1973; Ching et al. 1973).

Early Documentation of Heiau

Thomas G. Thrum (1907), publisher of the Hawaiian Almanac, gathered lists of heiau on all the islands; and reported four from the *ahupuaʻa* of Kalapakī, Nāwiliwili and Niumalu:

1. Kuhiau, Nāwiliwili, near site of court house - a large paved *heiau*, whose enclosure covered an area of about four acres: long since destroyed (SIHP No. 99). The rock Paukini, now separate from but formerly connected with the shore, was where the *kahuna* (priest) lived
2. Ninini, Kalapakī, near site of Nāwiliwili light house; described as destroyed (SIHP No. 100)
3. Ahukini, Kalapakī; described as a *heiau* of medium size, with some foundation stones in evidence at the time of Thrum's work (SIHP No. 101)
4. Pohakoelele, Kalapakī; described as a medium-sized *heiau*; destroyed by the time of Thrum's survey (no site number)

The first comprehensive archaeological survey of Kauaʻi was undertaken by Wendell Bennett in the late 1920s and published by the Bishop Museum in 1931 (Figure 13). Bennett used Thrum's list for reference and documented many other (mostly non-*heiau*) sites. In addition to the aforementioned *heiau* first documented by Thrum, Bennett (1931:48) also described "Paukini Rock, a heiau or priest's house now under water in Nāwiliwili harbor." This site is now designated SIHP No. 50-30-11-1999.

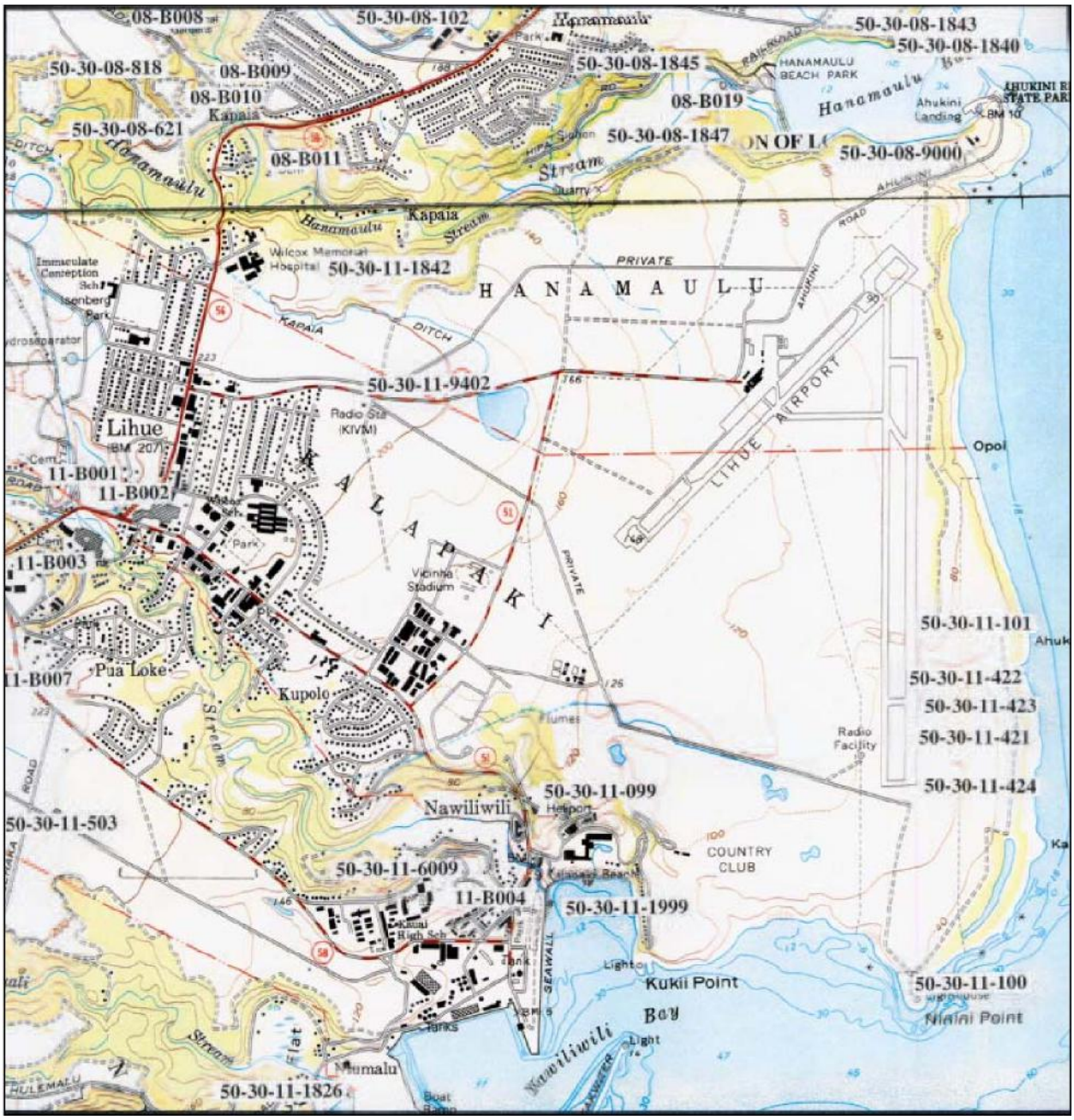


Figure 12. Historical and cultural sites of interest within and near the subject project area (projected on portions of Līhu‘e and Kapa‘a USGS 7.5-minute topographic quandrangle maps).

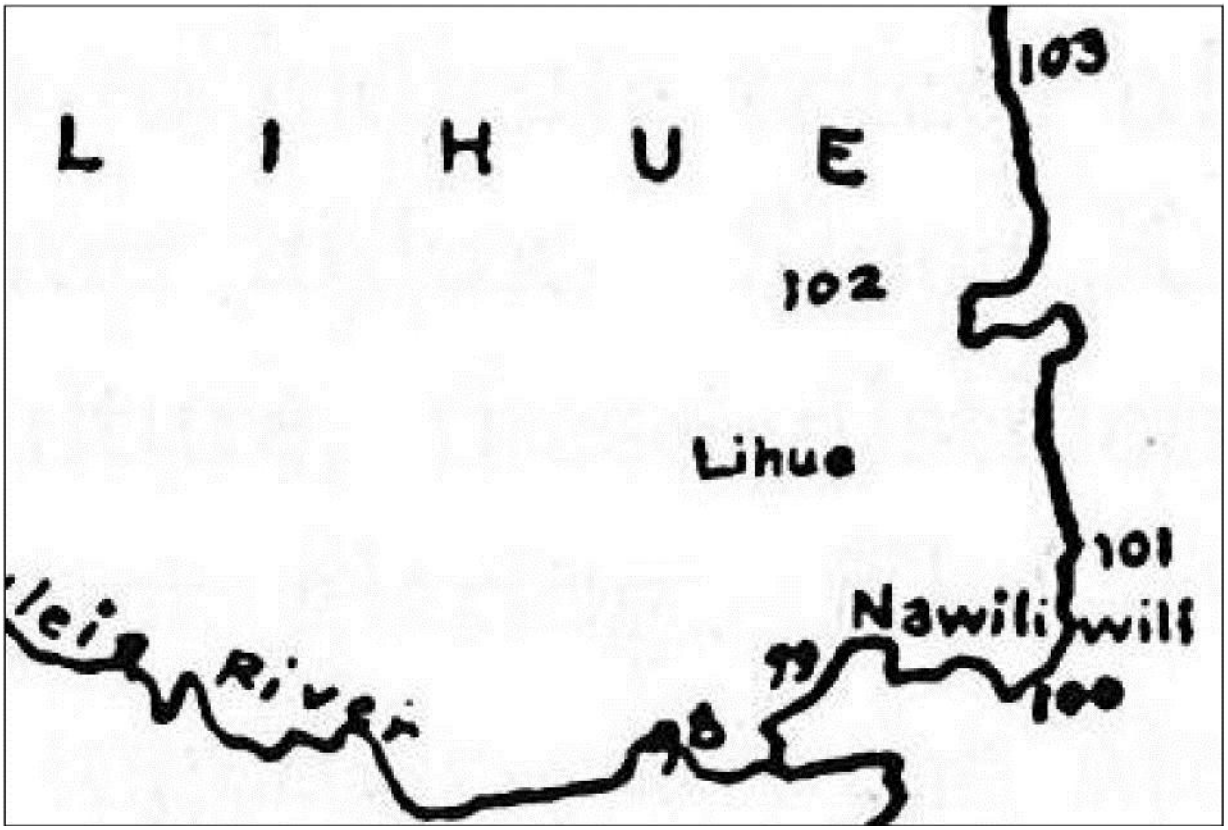


Figure 13. Detail of Bennett's (1931) map of Kaua‘i showing location of archaeological sites.

In an archaeological reconnaissance survey for the Kaua‘i Lagoons Resort, a wall, possibly related to Ninini Heiau was noted by Hammatt (1990:11): "A high well-constructed wall running 400' north of Ninini Lighthouse [is a] possible prehistoric wall and [it is] possibly related to the former Ninini Heiau (SIHP No. 100)." A dune midden scatter (SIHP No. 421), two probable cattle walls (SIHP Nos. 422 and 423), and an oval terrace alignment (SIHP No. 424) were also recorded in this area.

Bennett (1931:125) places Ahukini Heiau (SIHP No. 101) "in Kalapakī, near Ahukini Point on the bluff overlooking the sea. This is now entirely destroyed."

Bennett (1931:152) lists Pohakoele‘ele Heiau in Kalapakī under "Kaua‘i sites not located." Damon probably would have mentioned its location if she had known about it. There does not seem to be other references to Pohakoele‘ele Heiau in Kalapakī, and it is unknown if Damon used Thrum for her source, or if she knew the information from other persons on Kaua‘i. Although Bennett could not verify its existence, and its location is speculative, it is included as a non-located site of pre-Contact Kalapakī, passed down in local memory. There was a *heiau* in the neighboring (north) *ahupua‘a* of Wailua called Pöhaku‘ele‘ele, said to have been located just *mauka* of the junction of ‘Opaeka‘a Stream and the Wailua River (Dickey 1917:29). It is possible that these two *heiau* are the same, and Thrum was confused on the location. It is also possible that this was the name of an unnamed *heiau* on Kuki‘i Point. Neither Thrum nor Bennett mention a *heiau* noted by Lt. George G. Jackson, Navy surveyor for the Hawai‘i Government Survey Office in 1881 (see Figure 6) at Kuki‘i Point. The Kaua'i Community College newsletter, *Archaeology on Kaua‘i* (1973:4), notes that the "remains of ancient heiau" noted by Jackson are "where the cottages of the Kaua‘i Surf now stand."

Ethel Damon (1931) mentions Kuhiau Heiau in Nāwiliwili, placing it near the location of the Court House (see Figure 4). She mentions Pohako-eleʻele, location unknown, and Paukini Rock (SIHP No. 1999), located at Kalapakī Beach, Nāwiliwili Bay:

> An additional area of four acres was during this same year, 1851, sold to the government for harbor and road near Nawilwili Bay. The first sighting point in this deed was the north corner of Kuhiau heiau. (Damon 1931:415)
>
> From the deck of their rivercraft in 1854 Mrs. Rice and the children could plainly see above the rocky shore the ruins of Kuhiau, the old heiau, or temple, and nearby on the bluff the flaming blossoms of a great wili-wili tree among koa trees which then grew almost down to the water's edge. (Damon 1931:17)
>
> On the bluff overlooking the bay of Nāwiliwili, where the public High School now stands, was once the large paved heiau called Kuhiau, extending over about four acres of ground. It was in its day the largest and most far-famed temple on the island. Below it, in the bay, is still the rock called Paukini, which was said to be its companion or sister heiau, and was probably also the home of the kahuna, or priest, of Kuhiau. In ancient times this rock was connected with the shore near the site of the former boat landing. All the dredging and filling in for the modern wharves have not yet touched this old rock of Paukini, the sole remnant of the famous heiaus of Nāwiliwili Bay. For almost no traces, even of the great Kuhiau temple, are now [in 1931] to be found; and of the three small heiaus in the neighboring ahupuaʻa of Kalapakī, those of Ninini, Ahukini and Pohako-eleele, little more than the names survive. (Damon 1931:397-398)

In a collection of Kauaʻi Place names (Kelsey n.d.), the *heiau* of Kuhiau is also mentioned:

> *Nāwiliwili, oia ke awa kumoku. Aia ilaila ka heiau of Kuhiau. Kalapakī, aia oia makao o Nāwiliwili.*
>
> Nāwiliwili is the harbor. The temple of Kuhiau is there. Kalapakī is on the shoreline of Nāwiliwili.

Thrum placed the location of Kuhiau Heiau near the "Court House," which is labeled on a 1881 Jackson map (see Figure 4) in an area called "Kuhiau." Jackson does not label any structure as the *heiau*, so it may have been destroyed sometime between 1854, when Mrs. Rice and her children saw it from the harbor, and 1881, when Jackson made his map. According to Dr. William Kikuchi (personal communication), the *heiau* was destroyed when people took the rocks to use for other purposes. Its general location was near the ironwood tree next to the Kauaʻi High School flagpole (Kalima and Smith 1991:B-5). Nancy McMahon (SHPD Archaeologist for Kauaʻi) indicated that the Paukini Rock location in Kalapakī Bay was shown to her by Cheryl Lovell-Obatake in 1999, and subsequently added to the State Inventory of Historic Properties (SIHP No. 1999).

Thrum gives the location of Kaluaokamanu Heiau as "above the mill." A 1934 newspaper account and Ethel Damon give additional information on the location of this *heiau*:

> Another *heiau* located in Hanamāʻulu is Kalauokamanu. This was situated just west of the Līhuʻe Plantation Yard and adjacent to a cane haul road. It is said to be

> of the *pookanaka* [sacrificial] class and was destroyed in 1855. (*Garden Island Press* 1934)
>
> Within the ahupuaʻa of Hanamāʻulu was a large walled heiau called Ka-lau-o-ka-manu of the poo-kanaka type, or one in which human sacrifices were offered; but in the almost unconscious days of transition, when popular interest in such thing was still asleep, most of the stones from this enclosure were taken to make firm the foundation of the Hanamāʻulu sugar mill. (Damon 1931:397)

There were also two stones associated with this temple, which guarded the pathway to the *heiau*. Mary Rice, in her "History of Līhuʻe" stated that there were "two large rocks formerly in the field opposite Mr. Wolter's residence, of which it is said they were chiefs on their way to this heiau but stricken dead by the stench from the human sacrifices" (Rice 1914: 48). Carl Wolters was the manager of Līhuʻe Plantation from 1893 to 1900. Kalauokamanu Heiau was said to have been located "above the mill" at the base of Kālepa Ridge (Wichman 1998:61). The *heiau*, therefore, may once have been located in the area now occupied by Kālepa Village and Hanamāʻulu Plaza (Lo 2005).

More Recent Archaeological Projects

The following archaeological projects studied lands located in and near the current Līhuʻe Airport, just east of the project area. Most of these investigations yielded no significant historic or cultural sites, or relatively minimal finds:

(1) McMahon (1990) conducted a brief walk-through field check of three parcels of land immediately west of the airport, and east of Līhuʻe town center. Three previously identified historic residences (SIHP Nos. 50-30-9390, -9401 and -9402) were documented; no archaeological resources were identified.

(2) Hammatt and Creed (1993) conducted an archaeological survey of 61 acres of land in Nāwiliwili. Historical evidence suggested this land was intensively used for agriculture in both pre- and post-Contact times. They documented three *ʻauwai* (traditional irrigation ditches) (SIHP Nos. 50-30-11-491; -492 & -493); and a single rock (SIHP 50-30-11-494) interpreted as a burial marker.

(3) Hammatt and Folk (1995) conducted an archaeological and osteological study of Nāwiliwili Cemetery (SIHP No. 50-30-11-6009), located between Kauaʻi High School and Kalapakī Bay. A total of 68 burials of historic age were documented, disinterred, and reburied nearby; the burials represent a wide variety of ethnicities and ages. Walker and Rosendahl (1991) surveyed this same general area and discovered 34 intact, historic burials with several associated headstones.

(4) Creed et al.'s (1999) archaeological inventory survey of several discontinuous parcels within the airport area documented no evidence of prehistoric or early historic sites. However, extensive remains of Ahukini Camp (part of Ahukini Landing, SIHP 50-30-08-9000) were documented at Hanamāʻulu Bay. The remains consisted of 15 concrete slabs believed to have been associated with residential structures, concrete drainage systems remnants, piles of historic trash, railroad tracks, loading dock and camp-related infrastructure. Additionally, a large wooden house (the Bertrand House) with attached

garage/living area and an associated rock wall lie within the project area, adjacent to and south of Ahukini Landing.

(6) Bell et al.'s (2006) archaeological inventory survey of approximately 175 acres of discontinuous lands in Hanamāʻulu and Kalapakī Ahupuaʻa associated with proposed improvements to Līhuʻe Airport identified one historic property (SIHP 50-30-08-3958), a piggery dating from the plantation era.

(7) South of the subject project area, in Niumalu, Folk and Hammatt's (1991) archaeological inventory survey at the Kanoa Estate Lands documented two fishponds originally recorded by Ching et al. (1973). In addition, a previously unrecorded *ʻauwai* was found connected to one of these fishponds, known as Kanoa's fishpond, to Hulēʻia Stream.

(8) Hammatt's (1988, 1990) archaeological reconnaissance and survey of the coastal area at Kalapakī and Hanamāʻulu Ahupuaʻa documented five sites (Figure 23), including two dry-stacked stone walls (both incomplete remnants) dating from the historic era (SIHP Nos. 50-30-11-422 & 423), a cultural layer (midden scatter) along the wave-cut shoreline (SIHP No. 50-30-11-424), an oval-shaped dry-stacked stone alignment or terrace (SIHP No. 50-30-11-421), and a 400-foot long stone wall considered to be a possible extension of Ninini Heiau (SIHP No. 50-30-11-100). Hammatt noted that much of the area had been heavily disturbed by prior activities, and that no definitive traces of Ahukini Heiau (SIHP No. 101) could be found.

(9) Creed et al.'s (1999) archaeological inventory survey of several discontinuous parcels within the airport area included portions of the coast at Hanamāʻulu (south of the stream, but documented no evidence of prehistoric or early historic sites, but did find extensive ruins of the early 20th century port of Ahukini (see details above).

(10) Neller and Palma (1973) conducted an archaeological reconnaissance of the Hulēʻia River Valley Area in the *ahupuaʻa* of Niumalu and Kīpū; and recorded a wide variety of traditional Hawaiian sites and features related used as habitation sites, planting and irrigation areas, and fishponds. In addition to the Menehune Fishpond (SIHP No. 98), Neller and Palma identified fifteen (15) archaeological sites in the near vicinity of Nāwiliwili Bay (see Figure 11). None of these sites are located within the general footprint area of the proposed harbor improvements; the nearest sites are about one-half mile inland from the harbor. Documented sites included three (3) stone enclosures (SIHP Nos. 3000, 3023, and 3024), one short stone wall segment (SIHP No. 3022), one stone wall complex with house platforms (SIHP No. 3025), one cave with evidence of old Hawaiian occupation (SIHP No. 3001), a dirt and stone house platform (SIHP No. 3026), two small fishponds (SIHP Nos. 3027 and 3028), two *ʻauwai* (SIHP Nos. 3029 and 3030), and four *loʻi* (taro pond field) complexes.

Community Contact Findings

An effort was made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about the proposed project area. This effort was made by e-mail, telephone, and person-to-person contact. Several (12) attempts were made to contact individuals, organizations, and agencies apposite to the CIA for the subject project. The results of all consultations are presented in Table 2. Excerpts from more extensive interviews and statements specifically related to the proposed project and the old Rice Camp or Stable Camp and its environs are presented in below.

The interviews were conducted in more a "talk story" fashion. Information was sought out life in the former camp, the tunnels or drainage ditches from the plantation, the Hookano-Panui family burial area [50-30-11-2195] near the Hookano Rice Camp house, any gathering rights or trails through the camp.

Table 2. Community Contacts

Name	Background, Affiliation	Comments
Santos, Kaliko	OHA, Community Resource Coordinator, Kaua'i Office	Interview phone call
Shigemoto, Tom	Former Resident of Rice Camp	Interview via phone call and email.
Hookano, Kaleo	Hookano Family	Met in Person
Hookano, Kemamo	Hookano Family	Interviewed in person
Johnson, Scott	Train Engineer	Grove Farm Museum
Say, Barbara	Kaua'i Island Burial Council Hanalei representative	Interview via phone call
Trembeth, Healani	Opunui Family, Nāwiliwili Resident	Interviewed via phone call
Lovell-Obatake, Cheryl	Nāwiliwili Resident	Interviewed via phone call
TenBruggencate, Jan	Līhu'e resident, Author, Writer	Interviewed via phone call
Goodale, Hobby	Rice Family, Līhu'e Resident	Met in person
Aipoalani, Kunani	Chair Niihau/ Kaua'i Island Burial Council	Met in person
Pereria, Leah	Hookano Family	Interview via phone call

No informant could provide any information on any traditional gathering rights or trails on the properties. In 2004, the former Chair of the Kaua'i Island Burial Council, LaFrance Kapaka-Arboelda claimed to be a lineal descendant to 4 unmarked burials on parcel 4-3-06-004: 9 Lot A-1-B (Letter in Appendix B). According to her letter of November 23, 2004, William Iwiula Hookano and his wife Maraea Opunui Hookano, lived in Rice Camp through the 1900s. Vital statistic records show that Mr. Hookano had 21 children, 7 of which lived. Mr. Hookano died in 1920. He was the Chief of Police. Census records show that twin boys died in 1902 named Samuel and Daniel, in 1907 a unnamed girl 10 months old died, 1910 another child of Hookano died. Informants said that Mr. Hookano planted the pikos of the infants in the mango tree. There are two mango trees in the area of the burial, which one we are not sure but one is larger and older than the other. It is also not clear where the other 10 burials are located but the assumption is between the mango trees. Iwiula Hookano the son of Maraea lived on the property when

LaFrance Kapaka would visit with her maternal grandmother Helena Wahinealiiokalani Opunui Kapaka.

The letter also states that after Hurricane Iniki, the parcel was used as a baseyard for Fredstand Kaluahine and his heavy equipment. Mr. Kaluahine did concur with this and knew very little about the unmarked burials there, other than LaFrance talking to in around 2004.

One family member stated that Opunui Hookano Jr., son of William also lived on the property and said to be a Kahuna who had cursed the property.

Tom Shigemoto knew little about the burials other than from LaFrance as he was on the Burial Council in 2004. He visited the area with his father and LaFrance. Tom grew up in Rice Camp, he recalled never going to the Hawaiian's man house or yard, even though he lived next door as he was an angry man and everyone was afraid of him. He talked about Tanaka Store, Ideal Cleaners, Kalena Stores, Ishida Store and shops around the camp. He drew an outline of what Rice Camp and the housing layout looked like (Figure 14.) According to his map 20 plantation houses are there.

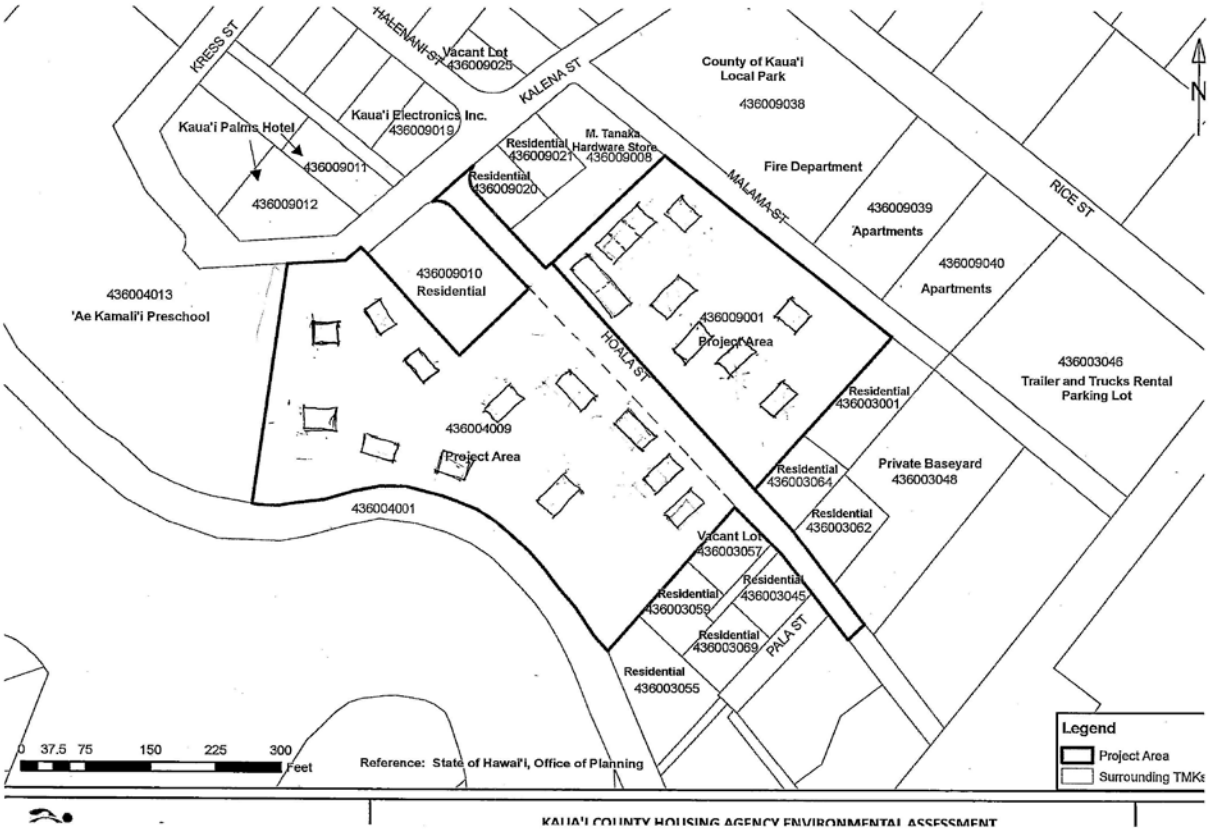


Figure 14. Map of Rice Camp by Tom Shigemoto.

Information from the Kaua‘i Historical Society, included a folder with Plantation Camp information and a map of Rice Camp was found which indicated that at one time there were Stables and a Coral on property. The date of this map is unknown as well as the reference for the time period of the Rice Camp.

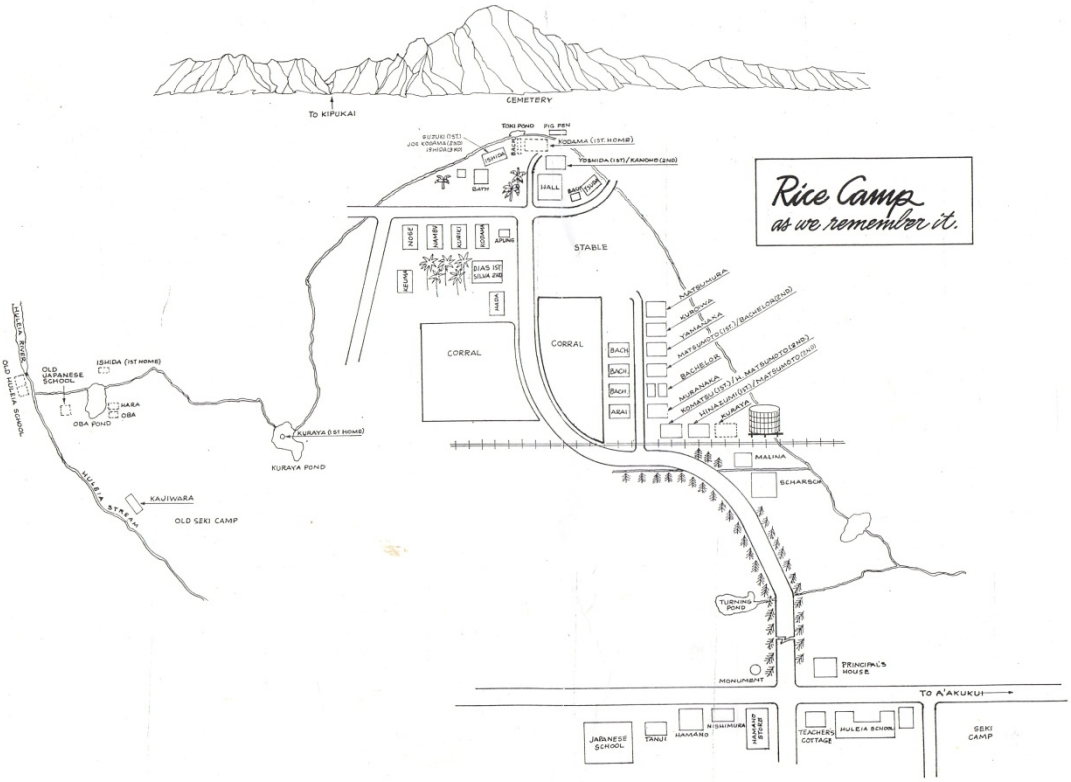


Figure 15. Rice Camp As We Remember (source: Kaua‘i Historical Society)

Until shortly after 1991, only a few plantation houses were left on the property. At the time the developer demolished the remains of 3 homes for a project called Līhu‘e 56. The project never was developed and the land was vacant until the County of Kaua‘i acquired the parcels in hopes of developing an Affordable Senior Housing project. They plotted the burial on their development proposal (Figure 15). They apparent made an appearance at the December 2004, Kaua‘i Island Burial Council meeting and agreed to preserve the burial area with a wrought iron fence around the unmarked graves. This was never followed through on since the project did not happen.

In addition to the unmarked Hookano-Panui site, there is an underground drainage system from Rice Street that was built by the Līhu‘e Plantation and Mr. Rice who was the engineer that designed these. Scott Johnson provided some information about the extensive tunnel and train system in Līhu‘e. He knew about the drainage tunnel [50-30-11-2194] and said also another one tunnel existed on the parcel. No further information has been found on this tunnel. He provided some maps showing the existing rail lines (Figures 10, 11 and 17).

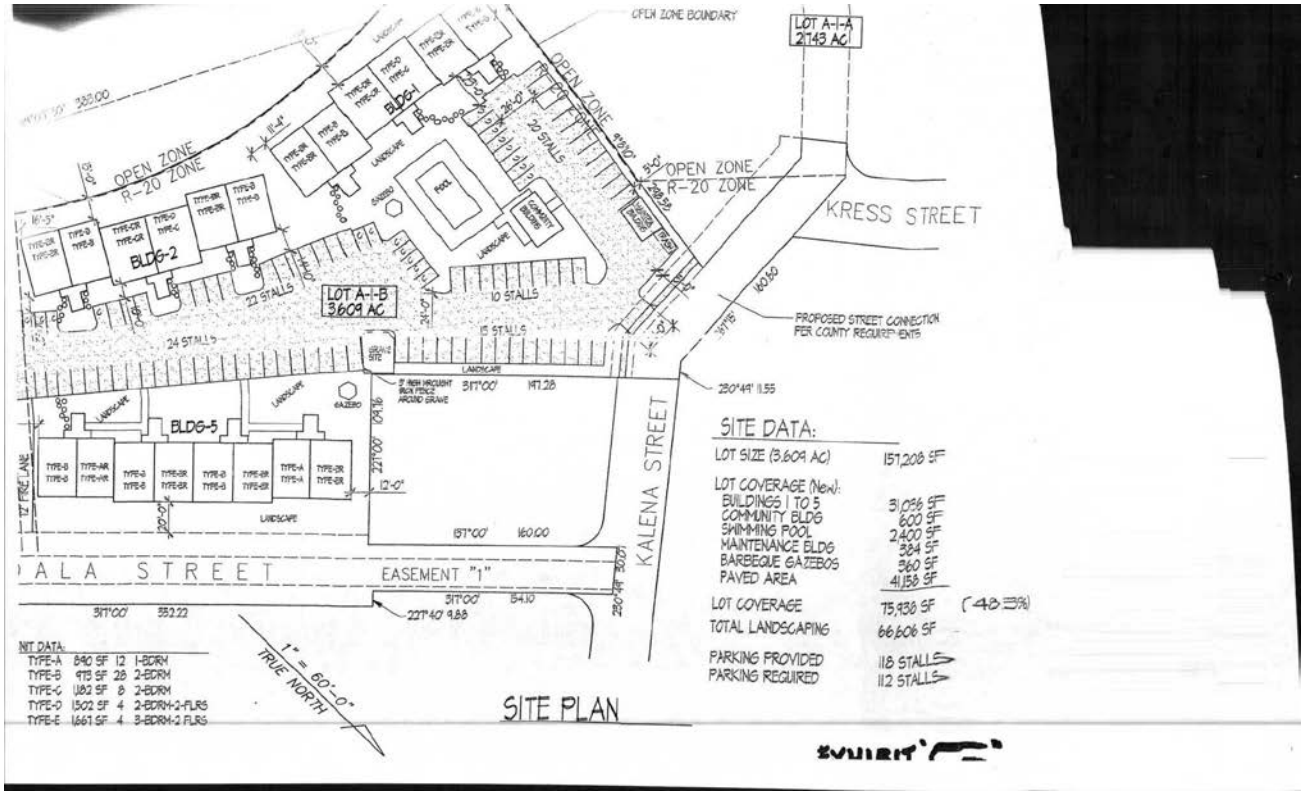
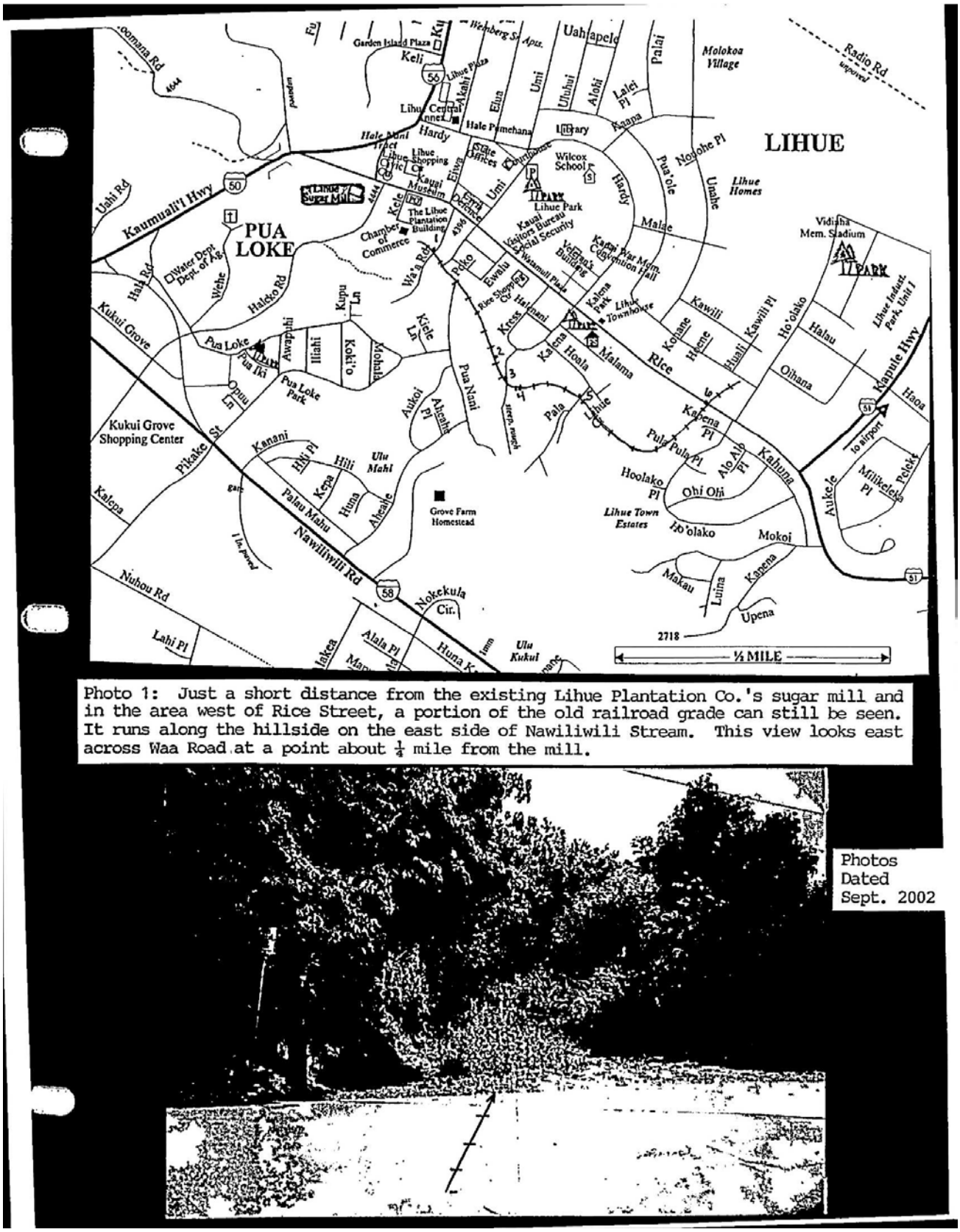


Figure 16. Approximate location of Hookano-Panui Burial [50-30-11-2195] on Līhu‘e 56 Proposal Plans.


LIHUE
PUA LOKE
Kaumualiʻi Hwy
Rice
Kapule Hwy
Nawiliwili Rd
Kuhio
Kuhuna
Kuhea
Kuhea Pl
Kuhea Pl
Kuhea Pl

Traditional Hawaiian Culture Landscape in Kalapakī Ahupuaʻa and the Project Area

Specific aspects of traditional Hawaiian culture as they may relate to the project area in the broader context of the encompassing Kalapakī Ahupuaʻa landscape are discussed below. This section examines cultural resources and practices identified within or in proximity to the subject project area as well as the entire island of Kauaʻi. Excerpts from talk story sessions are incorporated throughout this section where applicable.

Kalapakī Ahupuaʻa

The archaeological record in Mule District indicates a date range of *ca.* AD 1100 to 1650 for early Hawaiian occupation (Walker, Kajima and Good fellow 1991). As pointed out by Franklin and Walker (1994), important *ahupuaʻa* with large rivers lies north and south of Kalapakī (Franklin and Walker 1994:17). Adjacent to the north, Hanamāʻulu offered an extraordinary bay and an extensive and broad river flood plain. To the south are located the broad Hulēʻia River Valley and the *ahupuaʻa* of Haʻikū. Kalapakī Ahupuaʻa thus would have had less varied pre-Contact resources than the larger neighboring *ahupua*'a.

In Pre-Contact Hawaii, the coastal zone of Kalapakī and Hanamāʻulu was the locus for permanent habitation, *heiau,* and numerous major *cross- ahupuaʻa* and *inter- ahupuaʻa* trails. There are fishponds at Kalapakī, and major garden activities were within the valley floodplain on the north side of Nāwiliwili River. In the dryland areas *(kula)* crops of *wauke,* sweet potatoes, gourds and trees were likely but no traces of these crops have been documented to date.

The *Māhele* records, archeological surveys and ethno-historical accounts confirm that in traditional Hawaiian times, habitation focused along the shoreline and in the stream valley. At the shoreline, activities included the farming of fishponds and dispersed taro *mauka,* the stream valley contained the majority of the *ahupuaʻa* settlement and most of the *loʻi* and *wauke* gardens.

During the mid-19th century, the *Māhele* claims describe villages on the shore at both Kalapakī and neighboring Hanamāʻulu. The claims report a fishpond at the shore in Kalapakī. The total number of *lo'i* mentioned in Kalapakī was 56, the number of houses was 9, and there were *5 kula* lands mentioned.

All known *heiau* for Kalapakī Ahupuaʻa were coastal. The coastal zone distribution of *heiau* seems quite normal for Kaua`i *ahupuaʻa* other than those of Wailua and Waimea.

There are several references to tapa in the legends, one in particular where the tapa is being made to give as a wedding gift. There may well have been additional *wauke* plantations on the plains in the pre-Contact period in Kalapakī Ahupuaʻa.

Archaeological remains of a terrace and midden along the Kalapakī coast (Hammatt 1998) indicate other shoreline habitations existed that were not included in the *Māhele* records. Shorelines are also traditional burial areas.

Inland, in areas of Kaua‘i like Kilohana Crater; birds were caught for food (Damon 1931, story of Lauhaka). Typically, *kuleana* holders would have had access to wood and herbs in the uplands and in the mountains the bird catchers and canoe makers would have had temporary shelters but the present records *are* silent on these activities for Kalapakī.

Project Area

Plateau lands, like the present project area, were typically less intensively utilized in traditional Hawaiian times. Utilization likely focused on dryland cultigens — such as sweet potatoes, dryland *taro, wauke, ti* leaf, and possibly banana. Timber and medicinal plants may also have been available for gathering. More speculatively, a plateau land like the project area could have been transformed into savannah lands where grasses like *pili* were grown for construction purposes.

There are no records of major trails running through the project area. Such trails within Kalapakī would likely have been located more *mauka* or *makai* along the shoreline.

Summary and Recommendations

At the request of Environet, McMahon Consulting conducted this Cultural Impact Assessment (CIA) in support of the Rice Camp Affordable Senior Housing Project, located on lands Līhu‘e District, located at, along Kalena and Malama Street, Līhu‘e , Kaua‘i, TMK: (4) 3-6-04: 009 and 3-6-09: 001 (Figures 1 and 2).

The proposed project consists of an affordable senior housing project. The improvements include single story and two story buildings with garden and parking areas.

The footprint of the proposed ground disturbance measures approximately 3.609 acres. The Area of Potential Effect (APE) for this project includes the of the construction footprint in the context of the *ahupua‘a* of Kalapakī and close to the *ahupua‘a* of Nāwiliwili.

In addition to conducting background research into the traditional and historic importance of the project area, in the context of Kalapakī, Nāwiliwili and Niumale Ahupua‘a and Līhu‘e [Puna] District, including results from previous archaeological studies, McMahon also made a substantial effort to consult with community members and organizations. A total of 12 individuals were contacted for this CIA (see Table 2, above). Efforts are still ongoing to solicit additional responses, which will be incorporated into subsequent drafts of this report.

Results of Background Research

Background research conducted for this project yields the following results:

1. The *ahupuaʻa* of Nāwiliwili, Niumalu, and Kalapakī were permanently inhabited and intensively used in pre-Contact and early historic times, based on a large amount of archaeological, historical, and oral-historical documentation. The coastal areas were the concentration of permanent house sites and temporary shelters, *heiau*, including *koʻa* and *kūʻula* (both types of relatively small shrines dedicated to fishing gods), and numerous trails. There were fishponds at Kalapakī and Nāwiliwili. Further from the current project area, there were numerous house sites and intensive cultivation areas within the valley bottoms of Nāwiliwili and Hulēʻia Streams.

2. The archaeological record of early Hawaiian occupation in the general vicinity of the project area indicates a date range of c. A.D. 1100 to 1650 for pre-Contact Hawaiian habitations (Walker et al. 1991). A radiocarbon date of A.D. 1170-1400 was obtained from excavated sediments near the mouth of Hanamāʻulu Stream. Given evidence from other locations in the Hawaiian Islands, however, it is likely that the earliest settlements in and around the project area are considerably older than these dates. With the exception of subsurface fishpond or agricultural field sediments, the project area is unlikely to contain any as-yet undiscovered and intact historic / cultural properties or deposits, given the extent of historic and modern development and construction.

3. Land Commission documents indicate a land use pattern that may be unique to this part of the island, or to Kauaʻi, in general, in which *loʻi* (irrigated terraced gardens) and *kula* lands are described in the same *ʻāpana* (portion of land), with houselots in a separate portion. In most other places, *kula* lands are defined as drier landscapes and they do not typically occur next to, and among, wetter *loʻi* lands. Also, according to Hammatt and Creed (1993:23), "there are several [LCA] references to other *loʻi* next to the beach which indicate wetland cultivation extending right to the shoreline." This is another type of land use that seems to be fairly unique to Kauaʻi.

4. There are several historic map sources showing multiple *heiau* along the seashore and stream mouths. For the most part, all physical evidence of these *heiau* has been obliterated by historic activities and more recent development. Despite this, however, many people still appreciate the sacred nature of the landscape areas in and around these *heiau* (e.g., the rocky points at Ninini, Ahukini, and Kukiʻi), and many people still frequent these locations for spiritual reasons.

5. By virtue of its location within portions of Kalapakī, Nāwiliwili and Niumalu Ahupuaʻa, the project area is associated with a great number of *moʻolelo* (oral histories) and *wahi pana* (legendary or storied places), including: Alekoko and Kahalalehue (shark guardian spirits); Kalanipuʻu (a *puʻu kāhea,* or "calling hill" for fishermen) and Pele's older sister Na-maka-o-Kahaʻi; Kawelo (a.k.a. Kawelo-lei-makua, the late 17th to early 18th century chief of Kauaʻi), who was born at Hanamāʻulu; Kilohana (source of Nāwiliwili and Hulēʻia Streams), a boy named Lahi and his uncle; Hāʻupu and Pohaku-o-Kauaʻi; Hiʻiaka's chanting of the winds of windward Kauaʻi; Ahukini-a-laʻa (a son of Laʻa-mai-kahiki), Pele and Ahukini; the *menehune*; Kuhiau and Paukini (an important marker stone); *mokihana lei*; and many more.

6. The area in general is also associated a number of persons, events and locations from the historic era, including Kaikioʻewa (Governor of Kauaʻi in the early 19th century); the 19th-century chiefess Kekauonohi and her husband Kealiiahonui (son of King Kaʻumualiʻi); Paul Kanoa, William Hyde Rice and Līhuʻe Plantation; Victoria Kamãmalu; Princess Ruth and many more.
7. Reviewing the information provided by the elements of this cultural impact evaluation —historical documentation, archaeological research, and community contacts — a speculative portrait emerges of the traditional Hawaiian landscape of Kalapakī Ahupuaʻa and the present project area. By the end of the eighteenth century, population in *ahupuaʻa* likely focused along the floodplains of valley lands and along the shoreline. In the valley lands, streams fed taro *loʻi* while, along the shore, fishponds supported the coastal population. Plateau areas of Kalapakī like the present project area may have been utilized for planting of dryland crops and gathering of timber and medicinal plants.
8. Archaeological studies have documented historic properties related to traditional Hawaiian culture in *makai* areas of Kalapakī outside the project area.
9. As confirmed by historical records and archaeological investigation, sugarcane cultivation and development of plantation infrastructure was the dominant land use within the project area and surrounding lands throughout the first half of the 20th century. The decades of sugar cultivation in the project area would have eliminated any surface properties related to traditional Hawaiian culture that may have formerly existed. Further, plantation operations — and the sense that the project area was private property — restricted access inside the project area by cultural practitioners who may have formerly utilized the area.

Results of Community Consultation

Twelve community contacts (government agency or community organization representatives, or individuals such as long-time area residents and cultural practitioners) were contacted for the purposes of this Cultural Impact Assessment. Eleven responded and participated in formal "talk story" interviews. Community consultation conducted for this project yields the following results:

1. Several participants either directly stated or indirectly implied that, from a Native Hawaiian perspective, potential threats to natural resources are one in the same as potential threats to cultural resources.
2. They believed the burial site should be protected and LaFrance's wish that a rod iron fence but placed around the approximate burial location and the mango trees (2) be preserved and included with the fencing as it is believed they marked the burial area.

Recommendations

The following recommendations are based on a synthesis of all the information gathered during preparation of this CIA. Faithful attention to these recommendations, and efforts to develop appropriate measures to

address these concerns, will help mitigate the adverse impacts of the proposed action on Hawaiian cultural beliefs, practices and resources:

1. Participants in the community consultation phase of this project should be afforded the opportunity to review and comment on the draft CIA (i.e., the subject document).

2. All parties involved in the planning, oversight/review and implementation of the proposed project should understand that, from a Native Hawaiian perspective, potential threats to natural resources are one in the same as potential threats to cultural resources.

3. Should any significant historical or cultural resources, including human skeletal remains and/or burial sites, be exposed during proposed construction activities, all work in the area of the find should immediately cease and the appropriate agencies should be contacted, in accordance with applicable laws and rules of historic preservation in Hawai‘i.

4. Based on the above findings, future development of the specific project area within the property will have minimal impact upon native Hawaiian cultural resources, beliefs and practices. It should be noted, however, that subsurface properties associated with former decades of sugar cultivation activities, plantation camp life and ranch/stable activities may be found.

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Appendix A Kalapakī Land Commission Documents (Creed et al. 1999)

No. 3248 Hanalea Wailua, January 14, 1848 NR

Land Claim. Greetings to the Land Commissioners: I, Hanale, a Hawaiian subject living at Wailua on the Island of Kauai hereby state my claim for land to you. There are 14 claims, that is, there are 14 lo'i. At the shore of Kalapaki are four lo'i, Palanohi, and a kula. The length is perhaps 40 chains, and the width is perhaps 39 chains. Some of the land was received from Paulo X and some from Daniela Oleloa. A respectful farewell to you all,

HANALE

No. 3249 Hao Kalapaki, January 14, 1848 NR

Greeting to the Land Commissioners: I, Hao, a Hawaiian subject living at Kalapaki, Island of Kauai hereby state my claim for my four lo'i and a small kula adjoining on the south side. 6 chains is the length and 5 is the width, 12 is the circumference. I received it from Paulo X. A respectful farewell.

Hao

No. 3250 Kalalo Kalapaki, January 13, 1848 NR

Greetings to the Land Commissioners: I, Kalalo, a Hawaiian subject living at Kalapaki on the Island of Kauai hereby state my claim for my three lo'i and a small kula adjoining on the east. I received it from Daniela Oleloa.

Kalalo

3280 Wawai Clmt FT

Papa sworn says I know Clmt's Land. It is in Kalapaki. It consists of 3 lois & kula in the ili of Keahua. He has a house Lot also on the [shore?] at Kalapaki. He has also three Fish Ponds at Kalapaki making three pieces in all.

Boundaries are as follows:

No. 1	W.	by Koele of the Konohiki
	North	Pali
	East	Hoenio's Loi
	South	Kalapaki Brook

No. 2 West Muliwai of Koenaananui
North Fish Pond
East Pali
South Sea shore

No. 3 Fish Ponds
W. Hau bush
N. Pali
E. "
S. A certain Loke or Pond

Clmt had his land from his Parents & has occupied them 5 or 6 years and there is no opposition to his claim.

Nauhailawa being sworn declares the above testimony to be all true.

No. 3280 Waiowae Kalapaki, January 13, 1848 NR

Greetings to the Land Commissioners: I, Waiowae, a Hawaiian subject living on the island of Kauai, hereby state my claim for land. There are two lo'i and a small kula adjoining it. I received it from Paulo X. Farewell to you all,

Waiowae

No. 3325 Kinipeki FT

Kaaina sworn says I know the land of Clmt & it is in Kalapaki &L lies in two pieces as follows. No. 1 consists of four lois in the ili of Kena. No. 2 House lot in the village of Kalapaki. Bounded as follows.

No. 1 M. Wawae's lois
K. Pali
M. Kuolohiu's Lois
K. Nāwiliwili River

No. 2 M. Kula of Konohiki
K. Loko or fish pond
M. Lea shore
K. ---"---"

Clmt had his land from Konohiki in the days of Kaikioewa & held it in peace till his death about a year ago when the land passed to his sister Hoano as his heir. Witness knows of no opposition to this claim. Kalewa, sworn knows the land & says the testimony of Kaaiana is true.

3408 Papaa Clmt

Kauhailawa, Witness, sworn says I know the land of Clmt. It is in Kalapaki and lies in two pieces. It is in the ili of Nuuhai & contains two lois. No. 2 is House lot on the shore also in the ili of Kuuhai and bounded thus.
3408 cont'

No.1. West by ahupuaa of Nāwiliwili
N. " Kalapaki Brook
E. Nuuanu's Loi
S. "---"---"

3425 Paiki Clmt (or his heir) FT

Zepania sworn says he knows the land of Paiki & it is in Kalapaki, & consists of 5 Lois in the ili of Kiolepo with a small kula adjoining. Clts's House Lot is on the shore in the village of Kalapaki.

Bounded thus

No. 1	W.	by Wawai's Lois
	N.	" Pali
	E	" Nauhailawa's Lois
	S.	" Kalapaki Muliwai
No. 2	W.	" Pali
	N.	Kauhailawa's loi or fish pond
	E.	sea shore
	S.	" "

Clmt had his land from Kaukailawa in the days of Kahalaia and occupied it till his death in 1849. Since then the land has been held by his widow and his heir -her name is Hiku, & then there is no opposition to her claim.

Kauhailawa being sworn declares the testimony of Zepania to be all true.

No. 3425 Paiki Kalapaki, January 12,1848 NR

The Land Commissioners, Greetings: I hereby state my claim for lo'is.
I, Paiki, a Hawaiian subject lining on the Island of Kauai have four lo'i inland and a small kula; makai of Kalapaki is one lo'i next to the beach. My claim was received from P. X. Respectfully,

PAIKI X his mark

3642 Kuolohu's heir, Clmt. FT

Zepania sworn says he knows the land of Clmt. It is in Kalapaki and consists of three lois in the ili of Kaahakea & he has also a House Lot on the shore in the village of Kalapaki; bounded as follows:

No. 1	W.	by Hoano's lois
	N.	" Kauhailawa's loi
	E.	" --- " ---"
	S.	" Kalapaki Brook

No. 2 is bounded

W.	by House Lot of Hao
N.	" Pond called Hoenoawanui [?]
E.	" Hoano's House lot
S.	" sea shore

Clmt had his land from Nauhailawa in the days of Makalaia and occupied it till his death [?] is opposition to the claim. Kauhailawa sworn says the testimony of Zepania is all true and further he says Kuolohio died in 1849 and his land passed to his friend or "Punalua" whose name is Kamoa and he now occupies the land. The widow, the konohiki, & all concerned agree to this arrangement. There is no opposition to it.

No. 3642 Kuaolohu Kalapaki, Kauai, January 13, 1848 NR

The Land Commissioners, Greetings: I hereby state to you my claim for land. I, Kuaolohu, a Hawaiian subject living on the Island of Kauai have two lo'i, makai of Kalapaki, and a small kula. I received my lo'is from Paulo X. Respectfully,

KUAOLOHU X his
mark

3643 Kukahiko FT

Kaaiau, sworn says he knows the land of Clmt & it is in Kalapaki and lies in two pieces. No. 1 contains five lois & in the ili of Puhauluau, & small kula. No. 2 House lot in the village of Kalapaki.

		Boundaries
No. 1	M.	Opau's Lois
	K.	Auwai
	M.	Kauhailawa Loi
	K.	Nāwiliwili River

No.2	M.	Loko of Gov. Kanoa
	K.	side hill
	M.	Lea shore
	K.	small stream called Kaenaaina

Clmt had his land from the konohiki in the days of Kaikioewa & has occupied it ever since without opposition.

Hoano sworn & declares the testimony of Kaaiau to be all true.

No. 3643 Kukahiko Kalapaki, Kauai, January 13, 1848 NR

The Land Commissioners: I hereby state my claim for land. I, Kukahiko, a Hawaiian subject living at Kalapaki, Island of Kauai,
have seven lo'i and a kula.
The length is perhaps 20 chains, and the width 10 chains. I received my land from the Honorable Paulo X.

KUKAHIKO X his mark

No. 3645 Kauleaki Kalapaki, Kauai, January 13, 1848 NR

The Land Commissioners, Greetings: I hereby state my claim for land. I, Kauleaki, a Hawaiian subject living on the Island of Kauai, have four lo'i, 9 chains in length and 4 chains in width. My land was received from Daniela Oleloa. Respectfully,

KAULEAKI X his mark

No. 3646 Kamoa Kalapaki, Kauai, January 13, 1848 NR

The Land Commissioners, Greetings: I hereby state my claim for land. I, Kamoa, a Hawaiian subject living on the island of Kauai have three lo'i: however, my place of residence is in another place. I received the right to my lo'is from Daniela Oleloa. Respectfully.

KAMOA X his mark

3907 Nakala Clmt FT

Zerpania Witness, sworn, says he knows well Clmt's land. It is in Kalapaki and consists of two pieces. No. 1 contains 4 lois and house lot in the Koenaawaniu. No. 2 is one loi in the ili of Pau which is also the name of said Loi. Clmt has also a third piece of land which is kula and fenced with stone. It is used as a Mala wauke & is called Kualalai - Bounded as follows.

3907 cont'

No. 1.	W.	by Kahawai or brook
	N.	" Pali & Hau bushes
	E.	" --- " ---
	S.	Sea shore
No. 2	W	by Kahala's Meo kalo
	N.	" Koele
	E.	Moki's Loi
	S.	Napololii's loi
No. 3	W	by Kula of Mookapu
	N.	" ---"----"
	E.	" ---"----"
	S.	" ---"----"

Clmt had his land from Kauhailawa in the days of Kahalaia and she has held it ever since & there is no opposition to her claim. Hao sworn verifies the testimony of Zepania. It is all true.

No. 3907 Nakala Honolulu /sic/ Kauai, January 19,1848 NR

To the Commissioners to quiet title for land and house lots, a respectful greeting: I, Nakala, hereby state my claim for land: there are 2 enclosed lands, 3 lo'i,and 2 fish ponds. They are on the Island of Kauai in the land of Kalapaki. That is my statement to you.
Respectfully,

NAKALA X

Māhele Land Claims in Kalapakī

Land Claim #	Claimant	`Ili	Land Use	Landscape features	Awarded/Not awarded, amount
238P No. 3325 has documents for this award	Kinipeki, Hoano sister; heir	Kena Kalapakī village	4 lo`i house lot	Hanoi pali, Nawiliwili River loko,seashore	Award; 2 ap. 1 Ac. 32 rods; TMK maps lists it as 238C
3249	Hao	Pohaluau Kalapakī village	4 lo`i house lot	Kalapakī brook Konaawa pond, Kalapakī sand, river	Award, 2 ap. 3 roods 11 rods
3280	Wawae/ Wawai, Waiowae	Keahua Kalapakī shore Kalapakī makai	3 lo`i, kula house lot fish ponds	pali, Kalapakī brook muliwai, fish pond, pali, sea shore pali, loko, sea, hau /or spring	Award; 2 ap.; 1 Ac. 1 rood 18 rods
3325	Kinipeki				Not awarded; See 238P for award
3408	Papaa	Nuuhai Kuuhai at shore	2 lo`i house lot	Kalapakī brook road,pali,sea shore, Kalapakī brook	Award; 2 ap.; 2.5 Acs 33 rods
3425	Paiki Hiku, widow	Kiolepo Kalapakī village	5 lo`i & kula  house lot & 1 lo`i	Wawai's lo`is pali, muliwai pali, fish pond, sea shore	Award; 2 ap. 1Ac. 1 rood 36 rods

3637	Kauhaila wa	Koenaawa iki Koenaawaik i	2 lo`i, kula  10 lo`i	Wawae's lo`is sea beach, pali Wawae's lo`is, pali, Kalapakī river	Award; 1 ap.; 2 Acs 1 rood 14 rods; TMK 3-5
3642	Kuaolohu	Kaahekea / Keakekea Kalapakī village	3 lo`i, kula house lot	Kalapakī brook Hao's lot, Koenaawanui pond, sea shore	Award; 2 ap.; 3 roods
3643	Kukahiko	Puhauluau Kalapakī village	5 lo`i & kula house lot	`auwai, Nawiliwili river Kanoa's pond. side hill (Hanoi/Hanai) pali, sea shore, Koenaawa stream	Award; 2 ap.; 3 roods 24 rods
3645	Kauleaki / Kauleoki Hoano, wife; heir	Kalapakī village	house lot	Koenaawanui pond, sea shore	Not awarded
3687!	Kauhaila wa				See 3637
3907	Nakala	Koenaawa nui Pau (mauka) Kualalai	4 lo`i & house lot 1 lo`i kula mala wauke	brook, pali, sea shore ko`ele Mookapu kula	Award, 3 ap; 3 Acs 25 rods
7713:2	Kamamalu, Victoria	ahupua`a of Kalapakī			Awarded 2004 Acs
10632	Pahao	Palanohi	12 lo`i	pali of Palanohi	Not awarded

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Appendix B Letter from L. Kapaka-Arboelda dated November 23, 2004

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EXHIBIT '2.1'

November 23, 2004

RE: Class IV Zoning application by "Lihue 56",
TMK: 4-3-06:04 Parcel 9, Lot A-1-B

To Whom It May Concern:

Please be noticed that the above referenced property owners are currently requesting a Class IV zoning change. The property includes the human remains of not less than 4 infants of William Iwiula and his wife Maraea Opunui Hookano. Maraea Hookano was the eldest sister of my maternal grandmother Helena Wahinealiiokalani Opunui Kapaka. As a child and during my teenage years I accompanied my grandmother to the home site. Our visits to the site were to counsel with Iwiula Hookano, a son of Maraea residing in the original family home built by the Rice family. At was during these visits that the history of the land and the burial area were made known to me.

A couple of years ago I mention to Nancy McMahan, State archaeologist-Kauai about my concerns to the area when a former tenant (Kaluahine) had heavy equipment parked within the area. To my knowledge nothing formal was done to give the site a number within the State Preservation System.

Recently I met with Mr. Callijo, regarding his development plans for the parcel. It is my understanding that the plans to develop will not be in the vicinity of the burials. In the interest of time and due to non-response from State Historic Preservation to be placed on the December agenda of the Kauai/Niihau Island Burial Council and receipt of a site registration number, please consider the following: As lineal descendant to the burials on the lot, please accept their application for processing with the understanding that they will be coming before the burial council for confirmation of my stated interest and above declarations.

Sincerely yours,

La France Kapaka-Arboleda

La France Kapaka-Arboleda
P.O. Box 585
Anahola, HI 96703
(808) 651-2527

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APPENDIX F

SECTION 106 CONSULTATION LETTERS

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Environet, Inc.

March 20, 2013

Hui Kaleoʻo ʻAina Hoʻopulapula
P.O. Box 37958
Honolulu, Hawaiʻi 96837

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kauaʻi County Housing Agency Affordable Housing Development,
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Līhuʻe, Kauaʻi, Hawaiʻi

Dear Sir or Madam:

Environet, Inc., on behalf of Kauaʻi County Housing Agency, is in the process of preparing a Chapter 343 Hawaii Revised Statutes (HRS) Environmental Assessment (EA) and National Environmental Policy Act (NEPA), 24 Code of Federal Regulations (CFR) Part 58 Environmental Record Review (ERR) for the proposed affordable housing development at Rice Camp parcels (TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 in Līhuʻe on the Island of Kauaʻi. Please see the enclosed Location Map. This document is being prepared to evaluate and document the possible environmental, social and economic consequences associated with the project scope.

The purpose of the proposed affordable housing development is to help the County of Kauai meet its goal to provide much needed low-cost housing to its elderly residents. A total of 84 units is expected to be built on these parcels which will include one-bedroom/one-bath and two-bedroom/one-bath living units. We are in the project scoping phase and are seeking your input in terms of issues that would identify potential environmental impacts associated with the proposed project.

You are invited to attend a community meeting on April 4th at 6pm at the Lihue Civic Center, Piikoi Building, 4444 Rice Street, Suite 330, Conference Room A. This meeting is being conducted pursuant to NHPA Section 106 consultation with Native Hawaiian Organizations and Chapter 343 HRS.

Thank you in advance for participating in the planning stages of this important project. If you have any questions or need clarification, please contact me at 833-2225 ext. 1004.

Sincerely,

Colette Sakoda
Senior Project Manager

1286 Queen Emma Street | Honolulu, Hawaii 96813 | Tel: (808) 833-2225 | Fax: (808) 833-2231 | Email: enetmail@environethawaii.com

Environet, Inc.

March 20, 2013

Pualani Enos (Executive Director)
Hui Malama Learning Center
375 Mahalani Street
Wailuku, Hawaiʻi 96793

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kauaʻi County Housing Agency Affordable Housing Development,
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Līhuʻe, Kauaʻi, Hawaiʻi

Dear Pualani:

Environet, Inc., on behalf of Kauaʻi County Housing Agency, is in the process of preparing a Chapter 343 Hawaii Revised Statutes (HRS) Environmental Assessment (EA) and National Environmental Policy Act (NEPA), 24 Code of Federal Regulations (CFR) Part 58 Environmental Record Review (ERR) for the proposed affordable housing development at Rice Camp parcels (TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 in Līhuʻe on the Island of Kauaʻi. Please see the enclosed Location Map. This document is being prepared to evaluate and document the possible environmental, social and economic consequences associated with the project scope.

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Thank you in advance for participating in the planning stages of this important project. If you have any questions or need clarification, please contact me at 833-2225 ext. 1004.

Sincerely,

Colette Sakoda
Senior Project Manager

1286 Queen Emma Street | Honolulu, Hawaii 96813 | Tel: (808) 833-2225 | Fax: (808) 833-2231 | Email: enetmail@environethawaii.com

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Environet, Inc.

March 19, 2013

Association of Hawaiian Civic Clubs
Attn: Sarah K. Peters (Kauai Civic Club)
P.O. Box 1135
Honolulu, Hawai‘i 96807

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kaua‘i County Housing Agency Affordable Housing Development,
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Līhu‘e, Kaua‘i, Hawai‘i

Dear Ms. Peters:

Environet, Inc., on behalf of Kaua‘i County Housing Agency, is in the process of preparing a Chapter 343 Hawaii Revised Statutes (HRS) Environmental Assessment (EA) and National Environmental Policy Act (NEPA), 24 Code of Federal Regulations (CFR) Part 58 Environmental Record Review (ERR) for the proposed affordable housing development at Rice Camp parcels (TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 in Līhu‘e on the Island of Kaua‘i. Please see the enclosed Location Map. This document is being prepared to evaluate and document the possible environmental, social and economic consequences associated with the project scope.

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Thank you in advance for participating in the planning stages of this important project. If you have any questions or need clarification, please contact me at 833-2225 ext. 1004.

Sincerely,

Colette Sakoda
Senior Project Manager

1286 Queen Emma Street | Honolulu, Hawaii 96813 | Tel: (808) 833-2225 | Fax: (808) 833-2231 | Email: enetmail@environethawaii.com

Environet, Inc.

March 19, 2013

Kunane Aipoalani
Kaua’i Island Burial Council
P.O. Box 433
Kekaha, Hawai‘i 96752

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kaua‘i County Housing Agency Affordable Housing Development,
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Līhu‘e, Kaua‘i, Hawai‘i

Dear Kunane:

Environet, Inc., on behalf of Kaua‘i County Housing Agency, is in the process of preparing a Chapter 343 Hawaii Revised Statutes (HRS) Environmental Assessment (EA) and National Environmental Policy Act (NEPA), 24 Code of Federal Regulations (CFR) Part 58 Environmental Record Review (ERR) for the proposed affordable housing development at Rice Camp parcels (TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 in Līhu‘e on the Island of Kaua‘i. Please see the enclosed Location Map. This document is being prepared to evaluate and document the possible environmental, social and economic consequences associated with the project scope.

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You are invited to attend a community meeting on April 4th at 6pm at the Lihue Civic Center, Piikoi Building, 4444 Rice Street, Suite 330, Conference Room A. This meeting is being conducted pursuant to NHPA Section 106 consultation with Native Hawaiian Organizations and Chapter 343 HRS.

Thank you in advance for participating in the planning stages of this important project. If you have any questions or need clarification, please contact me at 833-2225 ext. 1004.

Sincerely,

Colette Sakoda
Senior Project Manager

1286 Queen Emma Street | Honolulu, Hawaii 96813 | Tel: (808) 833-2225 | Fax: (808) 833-2231 | Email: enetmail@environethawaii.com

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Environet, Inc.

March 19, 2013

Office of Hawaiian Affairs
2970 Kele Street, Suite 113
Līhu'e, Kaua'i, Hawai'i 96766

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kaua'i County Housing Agency Affordable Housing Development,
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Līhu'e, Kaua'i, Hawai'i

To whom it may concern:

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We are inviting you to attend a community meeting on April 4th at 6pm at the Lihue Civic Center, Piikoi Building, 4444 Rice Street, Suite 330, Conference Room A. The purpose of this letter and meeting is a Section 106 requirement for consultation with Native Hawaiian Organizations and part of the NEPA process.

Thank you in advance for participating in the planning stages of this important project. If you have any questions or need clarification, please contact me at 833-2225 ext. 1004.

Sincerely,

Colette Sakoda
Senior Project Manager

1286 Queen Emma Street | Honolulu, Hawaii 96813 | Tel: (808) 833-2225 | Fax: (808) 833-2231 | Email: enetmail@environethawaii.com

Environet, Inc.

March 20, 2013

Theresa Donham
Deputy State Historic Preservation Officer
601 Kamokila Boulevard, Suite 555
Kapolei, Hawai'i 96707

Subject: Pre-Assessment Consultation for Draft Environmental Assessment and Environmental Review Record:
Kaua'i County Housing Agency Affordable Housing Development,
Rice Camp Parcels, TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001
Līhu'e, Kaua'i, Hawai'i

Dear Theresa:

Environet, Inc., on behalf of Kaua'i County Housing Agency, is in the process of preparing a Chapter 343 Hawaii Revised Statutes (HRS) Environmental Assessment (EA) and National Environmental Policy Act (NEPA), 24 Code of Federal Regulations (CFR) Part 58 Environmental Record Review (ERR) for the proposed affordable housing development at Rice Camp parcels (TMK Nos. (4) 3-6-004:009 and (4) 3-6-009:001 in Līhu'e on the Island of Kaua'i. Please see the enclosed Location Map. This document is being prepared to evaluate and document the possible environmental, social and economic consequences associated with the project scope.

The purpose of the proposed affordable housing development is to help the County of Kauai meet its goal to provide much needed low-cost housing to its elderly residents. A total of 84 units is expected to be built on these parcels which will include one-bedroom/one-bath and two-bedroom/one-bath living units. We are in the project scoping phase and are seeking your input in terms of issues that would identify potential environmental impacts associated with the proposed project.

You are invited to attend a community meeting on April 4th at 6pm at the Lihue Civic Center, Piikoi Building, 4444 Rice Street, Suite 330, Conference Room A. This meeting is being conducted pursuant to NHPA Section 106 consultation with Native Hawaiian Organizations and Chapter 343 HRS.

Thank you in advance for participating in the planning stages of this important project. If you have any questions or need clarification, please contact me at 833-2225 ext. 1004.

Sincerely,

Colette Sakoda
Senior Project Manager

1286 Queen Emma Street | Honolulu, Hawaii 96813 | Tel: (808) 833-2225 | Fax: (808) 833-2231 | Email: enetmail@environethawaii.com

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APPENDIX G

HUD LETTER, JUNE 24, 2004

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LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
STEVE BRETSCHNEIDER
DEPUTY DIRECTOR
MARY LOU KOBAYASHI
ADMINISTRATOR
OFFICE OF PLANNING

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING

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

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-10520

June 24, 2004

Mr. Gordan Y. Furutani, Field Office Director
U.S. Department of Housing and Urban Development
Hawaii State Field Office
500 Ala Moana Boulevard, Suite 3A
Honolulu, Hawaii 96813

Dear Mr. Furutani:

Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency Requirements for U.S. Department of Housing and Urban Development (HUD) Grant Programs

We have recently revised the Hawaii CZM Program list of federal assistance programs that require CZM federal consistency review by our office. We no longer review any HUD assistance programs, including Community Development Block Grants, and housing programs such as the Public Housing Capital Fund. Applicants for HUD assistance are no longer required to obtain CZM federal consistency approval for HUD assisted activities. Other CZM regulations such as the Special Management Area and Shoreline Setback provisions which are administered by the Counties, are still valid and may apply to HUD assisted projects. Each County Planning Department should be consulted for the applicability of Special Management Area and Shoreline Setback Area requirements. We suggest that the environmental checklist that applicants for HUD assistance must complete be modified to reflect the change in CZM requirements.

Thank you for your cooperation in ensuring compliance with Hawaii's CZM Program. If you have any questions, please contact John Nakagawa at 587-2878 or Debra Tom at 587-2840, of our CZM Program.

Sincerely,

Mary Lou Kobayashi

Mary Lou Kobayashi
Administrator

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APPENDIX H

HUD ENVIRONMENTAL ASSESSMENT 24 CFR 58.36

ENVIRONMENTAL RECORDS REVIEW

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HUD Environmental Assessment 24 CFR 58.36
Environmental Records Review

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U.S. Department of Housing and Urban Development
San Francisco Regional Office -Region IX
600 Harrison Street
San Francisco, California 94107-1387
www.hud.gov
espanol.hud.gov

Environmental Assessment

for HUD-funded Proposals

Recommended format per 24 CFR 58.36, revised March 2005
[Previously recommended EA formats are obsolete].

Project Identification: Rice Camp Parcels Environmental Assessment/ Environmental Records Review

Preparer: Environet, Inc.

Responsible Entity: Kaua‘i County Housing Agency

Month/Year: May 2013

Environmental Assessment

Responsible Entity: Kaua‘i County Housing Agency
[24 CFR 58.2(a)(7)]

Certifying Officer: Kamuela Cobb Adams
[24 CFR 58.2(a)(2)]

Project Name: Rice Camp Parcels Environmental Assessment/Environmental Records Review

Project Location: Lihu‘e, Island of Kaua‘i, State of Hawaii

Estimated total project cost: $13,633,185

Grant Recipient: Kaua‘i County Housing Agency
[24 CFR 58.2(a)(5)]

Recipient Address: Pi‘ikoi Building, 4444 Rice Street, Suite 330, Lihu‘e, Hawaii 96766

Representative: Mr. Klayford Nakaahiki, Kaua‘i County Housing Agency

Telephone Number: 808-241-4444

Conditions for Approval: (List all mitigation measures adopted by the responsible entity to eliminate or minimize adverse environmental impacts. These conditions must be included in project contracts and other relevant documents as requirements). [24 CFR 58.40(d), 40 CFR 1505.2(c)]

Mitigation measures are anticipated during the construction and operation phase which would incorporate County of Kauai BMPs, standards along with recommendations provided by agencies including United States Fish and Wildlife Service (USFWS), utility and infrastructure upgrades, detention basin, fencing of archaeological resources and potential noise and air quality mitigation measures [Exhibits A, B, and C].

Hazards, Nuisances including Site Safety
Project construction will increase the possibility of safety issues, hazards and nuisances. The developer(s)/contractor(s) are responsible for mitigating these issues through the incorporation of County of Kauai BMPs. With the mitigation measures in place, the proposed development is not expected to generate hazards or nuisances.

Energy Consumption
Kauai Island Utility Cooperative (KIUC) is expected to supply the necessary power to the housing development. The proposed project will increase the electrical load demand of the local substation. The proposed development may require an electrical line extension and other upgrades to service the proposed development. However, these effects are expected to be insignificant as a result of the proposed project. Any electrical issues shall be resolved prior to development. Once the electrical improvements are conducted, the energy supply should meet the demand of the project site with respect to the surrounding area. Additonal energy demand for the proposed project shall be accommodated by the KIUC; therefore, no significant impacts to energy consumption are expected to result from the project.

Noise
The Kaua‘i County Housing Agency should consult with the State of Hawai‘i Department of Health (DOH) for appropriate noise permit requirements for this project. A noise permit may need to be issued by the DOH to allow construction operations. With mitigation measures in place and acceptance of elevated standards through HUD, adverse impacts to noise would be reduced to less than significant. Long-term noise impacts may result from increased vehicular traffic in the vicinity of the project. However, any potential noise level increases are expected to be less than significant [Exhibit A, Section 3.1.10] [Exhibit C].

Air Quality
Dust may be generated during construction activities. Also, increased vehicular traffic to and from the project area is anticipated resulting in increased air pollution. Traffic is expected to increase in the long term with the development of housing and increased population. Because the development is designated as senior housing, increased vehicular traffic is anticipated to be minimal. Therefore, impacts from air pollution caused by long term vehicular traffic increase are expected to be minimal [Exhibit A, Section 3.1.9].

Waste Water
Waste water will increase in the general location of the project area as more residents will be using the utilities and infrastructure provided. The waste water system service lines will be improved to facilitate the increased use. With these mitigation measures in place, there is no significant impact expected to result from the changes in waste water production.

Storm Water
The contractor is responsible to comply with National Pollution Discharge Elimination System (NPDES) requirements which include a Contractors Certification of NPDES Compliance including the BMP checklist and a written BMP plan. The State of Hawai‘i DOH will require a NPDES permit during the construction period as the project site is greater than one acre in size. BMPs would include erosion control measures to minimize potential sediment runoff to surface water and potentially groundwater. Any temporary discharge will be treated and/or controlled to the criteria established by the State Water Quality Standards. Additionally, a permanent detection basin is planned for the open area of TMK (4) 3-6-004:009. This detention basin would mitigate sedimentation to Nawiliwili Stream as it would capture stormwater runoff. Because these practices will be implemented, no significant impacts to water resources are anticipated under the proposed action.

Water Resources
Construction activities should comply with BMPs to reduce the potential of sediment runoff to the stream and to storm drains. Runoff in the project area will be mitigated by using silt fences and County approved BMPs for reducing the potential of sediment impacts on the wetlands or other water resources. Construction activities will implement BMPs to include sediment barriers to protect neighboring sites, Nawiliwili Stream and coastal waters from the potential of runoff from the project activities.

Surface Water
Nawiliwili Bay is classified as a Class A coastal water. Class A waters are intended for recreational purposes and aesthetic enjoyment and must be protected. These waters shall not receive waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class [Exhibit A, Section 3.1.7].

Vegetation and Wildlife
The threatened Newell’s shearwater, the endangered Hawaiian petrel, and a candidate for listing, the band-rumped storm petrels are known to traverse the project area when flying between the ocean and mountain nesting sites. Seabirds are vulnerable to collision with above ground objects throughout their breeding season of March through December 15. Once grounded, seabirds are vulnerable to predators and are often struck by vehicles along roadways. USFWS recommends using only essential lights, fully

shielding all lights and avoiding nighttime construction that requires lighting to avoid and minimize potential impacts to seabirds. Nighttime construction is not anticipated.

The endangered Hawaiian hoary bat roosts in exotic native woody vegetation and, while foraging, will leave her young unattended in “nursery” trees and shrubs. If trees and shrubs suitable for bat roosting are cleared during the breeding season, there is risk that young bats could inadvertently be harmed or killed. As a result, woody plants greater than 15 feet (4.6 meters) tall should not be removed or trimmed from June 1 and September 15. [Exhibit A, Section 3.1.5].

FINDING: [58.40(g)] **X Finding of No Significant Impact**

(The project will not result in a significant impact on the quality of the human environment)

___ **Finding of Significant Impact**

(The project may significantly affect the quality of the human environment)

Preparer Signature: _____Date:_____
Name/Title/Agency:_____

RE Approving Official Signature:
_____Date:_____
Name/Title/Agency:_____

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

Purpose: The purpose of the proposed project is to satisfy the need for senior housing on the Island of Kaua‘i. The EA/ERR is being conducted to evaluate and document the possible environmental, social, and economic consequences of the proposed affordable housing development. The Kaua‘i County Housing Agency is obligated to provide the much needed affordable housing to senior residents on Kauai as the population of Kaua‘i senior residents is increasing. Facilitating affordable housing opportunities for the Kaua‘i residents is one of the County’s top priorities.

Need: The General Plan indicates the overall growing population is projected for 65,300 to 74,300 residents in 2020. The projected need for housing units is 20,400 to 23,300 for the residents of all ages in the County of Kaua‘i (U.S. Census Bureau, 2010). These statistics further justify the County of Kaua‘i’s responsibility to provide much needed housing. The County of Kaua‘i General Plan addresses elderly housing needs. The County of Kaua‘i will need 152 affordable senior rental units in the five-year period from 2012 through 2016 for seniors who earn 80% or less of the area median income. These 152 units include 104 multi-family rental units.

Description of the Proposal: Include all contemplated actions which logically are either geographically or functionally a composite part of the project, regardless of the source of funding. [24 CFR 58.32, 40 CFR 1508.25]

The Kaua‘i County Housing Agency is proposing to develop affordable housing for senior residents. Two parcels (tax map key numbers (4)3-6-009:001 and (4)3-6-004:009) were recently acquired by the Kaua‘i County Housing Authority where a former plantation camp known as “Rice Camp” was previously located. The project site lies within an urban area in the town of Līhu‘e. Surrounding land uses include commercial and public facilities as well as residential use. The project site is approximately 5.2 acres and lies within the Kalapaki and Nawilwili Ahupua’a. The larger parcel, TMK No. (4)3-6-004:009 (3.6 acres) is currently a vacant lot. The smaller parcel, TMK No. (4)3-6-009:001 (1.6 acres) has been operating as a baseyard. The proposed project is the development of affordable housing on the subject parcels. The current project concepts include a total of 60 units built on the two parcels. Thirty-eight one-bedroom

units, approximately 649 square feet per unit, and twenty-two two-bedroom units, approximately 829 square feet per unit, are proposed to be built on both parcels. A community center with laundry facilities, community gardens and landscaped open spaces are also proposed at the project site. Most of the units will be one-bedroom, one bath units with some two bedroom, one bath units. Future development includes an additional 24 units at the project site.

Existing Conditions and Trends: Describe the existing conditions of the project area and its surroundings, and trends likely to continue in the absence of the project. [24 CFR 58.40(a)]

The larger parcel, TMK No. (4)3-6-004:009 (3.6 acres) is currently a vacant lot. The smaller parcel, TMK No. (4)3-6-009:001 (1.6 acres) has been operating as a baseyard. The site is relatively flat and rests at approximately 200 feet above mean sea level. The surrounding properties are used as residences, commercial businesses, school, fire department and recreation park. Without the proposed action, there would be no disturbance of the existing environment. However, affordable housing would not be provided to senior residents of the Island of Kaua‘i. The Kaua‘i County Housing Agency is responsible for facilitating affordable housing opportunities to the residents of Kaua‘i. Providing these opportunities is the Kaua‘i County Housing Agency’s top priority. Without this project, the senior citizens of Kaua‘i County Housing Agency would not have the opportunity for improved living conditions.

Statutory Checklist

[24CFR §58.5]

Record the determinations made regarding each listed statute, executive order or regulation. Provide appropriate source documentation. [Note reviews or consultations completed as well as any applicable permits or approvals obtained or required. Note dates of contact or page references]. Provide compliance or consistency documentation. Attach additional material as appropriate. Note conditions, attenuation or mitigation measures required.

Factors	Determination and Compliance Documentation
Historic Preservation [36 CFR 800]	The subject parcels are not listed as registered historic preservation sites. The archaeological inventory survey conducted at the project site indicated two previous archaeological sites located at the project site. The presence of a tunnel was confirmed by ground penetrating radar during a geophysical investigation in 2013 (Site 50-30-11-2194). The archaeological site is a burial of at least four infants and possibly up to fourteen infants who were buried by the Hookano family (Site 50-30-11-2195). A burial treatment plan includes the fencing and partitioning off of the burial site from construction activities. Monitoring is not recommended during construction activities. The project will not impact the known archaeological resources [Exhibit A, Section 3.2.2].
Floodplain Management [24 CFR 55, Executive Order 11988]	The project area is designated as FEMA Zone X, outside of the 100 year floodplain hazard area, and outside of the 500 year flood plain. The topography of the project area is flat and site soils provide for adequate drainage across the entire project area. The southern portion of the project area is located adjacent to Nawiliwili Stream. Sheetflow during rain events likely drains to the stream and eventually to Nawiliwili Bay and into the ocean. A detention basin to capture storm water runoff is planned for the project site. The proposed housing development is not anticipated to have an adverse impact on the floodplains. Additionally, the proposed project should not be impacted by flooding as it is located outside the designated flood hazard area [Exhibit A, Section 3.1.4].
Wetlands Protection [Executive Order 11990]	The nearest wetland is located 800 feet southwest from the project site and no wetlands exist at the project site. Loss or destruction of this wetland is not expected based on the distance of the wetland to the project area. Runoff produced during construction activities would be mitigated using silt fences and County of Kaua‘i-approved best management practices to reduce the potential of sediment impact to wetlands to a level of insignificance. [Exhibit A, Section 3.1.6] [Exhibit B]
Coastal Zone Management Act [Sections 307(c),(d)]	The Coastal Zone Management Program is promulgated by Chapter 205A, HRS. The objectives and policies of the program are administered by the State of Hawai‘i Office of Planning. Through the CZM Program, each County is required to establish SMAs and shoreline setbacks within which permits are required for development. The State of Hawai‘i Office of Planning declared that they no longer review any HUD assistance programs, including Community Development Block Grants, and housing programs such as the Public Housing Capital Fund. Other CZM regulations such as the SMA and Shoreline Setback provisions, which are administered by the Counties, are still valid and may apply to

	HUD-assisted projects. Each County Planning Department should be consulted for the applicability of SMA and Shoreline Setback requirements. The proposed project is exempt from CZM guidelines due to this notice [Exhibit A, Section 4.2]. The proposed project is not within the SMA. The proposed project is not anticipated to have an adverse impact on the coastal zone.
Sole Source Aquifers [40 CFR 149]	Based on the EPA sole source aquifer designation, the Island of Kaua'i does not have any sole source aquifers. The proposed project may potentially impact the water supply for the town of Līhu'e. These potential impacts are considered to be insignificant as the potential increase of residents to the project area is approximately 80 to 100 senior residents. The potential increase of population has been identified and addressed in the County of Kaua'i Department of Water Plan 2020. The availability of water should not be impacted or have adverse impacts to the town of Līhu'e or the county. Therefore, no significant impacts to the drinking water sources are expected from the proposed project. [Exhibit A, Section 3.1.7]
Endangered Species Act [50 CFR 402]	Endangered species or candidate endangered species have not been identified in the project area. A response letter from USFWS dated March 7, 2013 indicated that the project is not located near a wilderness area, a wildlife preserve, or a National Wildlife Refuge. There is no proposed or designated critical habitat in the vicinity of the project site. Three seabird species, the federally endangered Hawaiian petrel (*Pterodroma sandwichensis*), threatened Newell's shearwater (*Puffinus auricularis newelli*), and a candidate for listing, the band-rumped storm petrel (*Oceanodroma castro*) (collectively referred to as Hawaiian seabirds, are known to fly over the project area while traveling from the sea to their breeding sites. Additionally, the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) may forage or roost in the vicinity of the proposed housing development. The USFWS recommends only using essential lights, fully shielding all lights, and avoiding nighttime construction that requires lighting to avoid and minimize potential impacts to seabirds. Additionally, woody plants greater than 15 ft (4.6 m) tall should not be removed or trimmed from June 1 through September 15 due to the potential of harming or killing young bats that are nursing in vegetation near the project area. With the recommended mitigation in place, there would no impact to endangered species or biological resources [Exhibit A, Section 3.1.5].
Wild and Scenic Rivers Act [Sections 7 (b), (c)]	There are no designated wild and scenic rivers in the state of Hawai'i. There are no anticipated compliance requirements under the wild and scenic rivers act for the proposed housing development.
Air Quality [Clean Air Act, Sections 176 (c) and (d), and 40 CFR 6, 51, 93]	The County of Kaua'i does not have an Environmental Protection Agency (EPA)-funded air monitoring station. However, a temporary air monitoring station was installed near Nawiliwili Bay to track emissions from cruise ships as a special temporary project. The State of Hawai'i Department of Health (DOH) records and reports this data on their air quality

	website. Results of the air monitoring indicate that air quality data has remained below National Ambient Air Quality Standards (NAAQS) since the system was installed in 2011. The nearest EPA air monitoring station is located on the Island of O‘ahu. The State of Hawaii Annual Summary 2010 Air Quality Data results indicated that the air quality monitoring at all monitored stations remained below the state and federal NAAQS except during the New Year’s fireworks in December and January, and also during a brush fire near an air monitoring station on the Island of Hawai‘i. The proposed housing development activities may produce temporary air quality impacts including fugitive dust and emissions from construction vehicles and activities. Measures to control and prevent the spread of air pollutants may be implemented during construction. These measures will reduce the short-term air quality impacts to less than significant. Long-term impacts to air quality are anticipated to be less than significant [Exhibit A, Section 3.1.9].
Farmland Protection Policy Act [7 CFR 658]	The project site is not located within any designated agricultural lands of importance. A request for comments regarding compliance with the Farmland Protection Policy Act was made to the Natural Resource Conservation Service in a letter dated March 22, 2013. Because the project does not include any Agricultural Lands of Importance to the State of Hawai‘i, no significant impacts and no compliance issues are expected from the proposed housing development [Exhibit A, Section 4.1].
Environmental Justice [Executive Order 12898]	The project will provide housing to low-income senior residents. The proposed housing development complies with Executive Order 12898 and ensures environmental justice for members of the community, including minority and low-income populations [Exhibit A, Section 4.1].

HUD Environmental Standards Determination and Compliance Documentation

Noise Abatement and Control [24 CFR 51 B]	The project is expected to temporarily exceed the acceptable limits of 65 dBA based on the average noise levels of construction of 70-100 dBA. Mitigation measures to reduce the noise impacts during construction should be implemented; these measures may include noise barriers and mufflers. The proposed project may be an exception to the acceptable standard of 65 dBA because it “meets other program goals to provide housing in proximity to employment, public facilities and transportation,” [24 CFR Part 51 Section 105]. In this case, the noise levels may be shifted to 70 dBA. However, based on the Noise Reference Manual, Kaua‘i Edition of February 2008, an approved Community Noise Permit may be required for construction projects exceeding 78 dBA or has a total cost of more than $250,000 (based on the value of the building permit). The Kaua‘i County Housing Agency should consult with the DOH for appropriate noise permit requirements for this project. A noise permit may need to be issued by the DOH to allow construction operations. With

	these mitigation measures in place and acceptance of elevated standards through HUD, adverse impacts to noise would be reduced to less than significant. Long-term noise impacts may result from increased vehicular traffic in the vicinity of the project. However, any potential noise level increases are expected to be less than significant [Exhibit A, Section 3.1.10] [Exhibit C].
Toxic/Hazardous/Radioactive Materials, Contamination, Chemicals or Gases [24 CFR 58.5(i)(2)]	The project area has never been developed and no known hazardous substances are believed to exist on the property (Appendix B). Requests for records from the State of Hawaiʻi DOH was submitted and the DOH response indicated that no records exist for the two parcels. The proposed housing development is not anticipated to be affected by toxic, hazardous, radioactive materials, chemicals, gases or any other form of contamination. Construction activities would require implementation of County of Kauaʻi BMPs. Mitigation measures to reduce potential impacts from use of petroleum operated vehicles and equipment would be implemented to reduce any potential impacts to a level of insignificance. [Exhibit A, Section 3.1.8].
Siting of HUD-Assisted Projects near Hazardous Operations [24 CFR 51 C]	The surrounding land uses include residential and commercial. Apartment complexes, homes and vacant lots are located around the project area. A hardware store and electronics store are located in the vicinity of the project area. A few baseyards for housing trucks and materials are located within the vicinity of the project area. Operations associated with the hardware and electronics store could potentially have hazardous materials; however, operations associated with these materials are not likely. It is unknown if hazardous materials are stored at the baseyards.
Airport Clear Zones and Accident Potential Zones [24 CFR 51 D]	The project area is located approximately 3,600 ft from the edge of the Lihuʻe airport property boundary which is outside of the potential airport clear zone or accident potential zone of 2,500 ft. The project is located within 15 miles of Līhuʻe Airport which is regulated by the Federal Aviation Agency (FAA) [Exhibit A, Section 4.1].

Environmental Assessment Checklist

[Environmental Review Guide HUD CPD 782, 24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Evaluate the significance of the effects of the proposal on the character, features and resources of the project area. Enter relevant base data and verifiable source documentation to support the finding. Then enter the appropriate impact code from the following list to make a determination of impact. **Impact Codes**: (**1)** - No impact anticipated; (**2)** - Potentially beneficial; (**3)** - Potentially adverse; (**4)** - Requires mitigation; (**5)** - Requires project modification. Note names, dates of contact, telephone numbers and page references. Attach additional material as appropriate. Note conditions or mitigation measures required.

Land Development	Code	Source or Documentation
Conformance with Comprehensive Plans and Zoning	1	According to the State Land Use Commission district classifications, the two parcels are in the urban land use district. County zoning at the project site include the following: TMK parcel (4) 3-6-004:009 zoned as residential (R-20) and TMK parcel (4) 3-6-009:001 zoned as general commercial (CG). R-20 residential density district allots for 20 dwelling units per acre of land. CG zoned lands include uses and services which are less frequently used and which are normally a central commercial center serving several residential neighborhoods and which are less compatible with the environmental qualities of residential districts as stated in the County of Kaua‘i Comprehensive Zoning Ordinance (CZO). Structures and residential uses must comply with the County of Kaua‘i CZO and the County of Kauai General Plan [Exhibit A, Section 4]. TMK parcel (4)3-6-009:001 is zoned as CG and may require a Use Permit for the affordable housing development. It is recommended that Kaua‘i County Housing Agency or the developer consult with the County of Kaua‘i Planning Department for any land use permits. The maximum residential and resort densities within the CG district follow that which is permitted in a R-20 district. All project development must comply with the County of Kaua‘i CZO.
Compatibility and Urban Impact	1	The project site will be compatible with surrounding land uses, which include the residentially and commercially zoned parcels adjacent to the project site [Exhibit A, Section 3.2.1]. Additionally, the project site is designated as urban under the State Land Use District.
Slope	1	The project site is relatively flat with a slight gradient from north to south. The elevation at the site is approximately 200 feet above mean sea level. The project will slightly alter the elevation of the ground and surface conditions are expected to remain flat, as needed for construction activities. Because the changes in topography are minimal, no significant impacts to topography or geology are expected to result from the Proposed Action [Exhibit A, Section 3.1.1].
Erosion	1	Soil at the site is mapped as Lihue silty clay, 0 to 8 percent slopes (LhB). The surface layer (12” thick) is dusky red and the subsurface layer is 48” thick dark red or dark reddish-brown. The soils permeability is moderately rapid and run-off is expected to be minimal [Exhibit A, Section 3.1.2]. County of Kaua‘i BMPs should be incorporated during the construction phase of the project to reduce any potential of erosion from the surface soils. These practices include silt fences, sediment barriers, and/or detention

		basin.
Soil Suitability	1	The project site consists mainly of silty clay with gravel. Given the successful build-out and development of the adjacent residential development, and the soil type properties, the soil is suitable for the proposed use.
Hazards and Nuisances including Site Safety	4	Project construction will increase the possibility of safety issues, hazards and nuisances. The developer(s)/contractor(s) are responsible for mitigating these issues through the incorporation of a health and safety plan and County of Kaua'i BMPs. With the mitigation measures in place, the proposed development is not expected to generate hazards or nuisances. [Exhibit B]
Energy Consumption	4	Kaua'i Island Utility Cooperative (KIUC) is expected to supply the necessary power to the housing development. The proposed project will increase the electrical load demand of the local substation. The proposed development may require an electrical line extension and other upgrades to service the proposed development. However, these effects are expected to be insignificant as a result of the proposed project. Any electrical issues shall be resolved prior to development. Once the electrical improvements are conducted, the energy supply should meet the demand of the project site with respect to the surrounding area. Additonal energy demand for the proposed project shall be accommodated by the KIUC; therefore, no significant impact to energy consumption is expected to result from the project.
Noise -Contribution to Community Noise Levels	4	The project is expected to temporarily exceed the acceptable limits of 65 dBA based on the averaged noise levels of construction of 70-100 dBA. Mitigation measures to reduce the noise impacts during construction should be implemented; these measures may include noise barriers and mufflers. The proposed project may be an exception to the acceptable standard of 65 dBA because it "meets other program goals to provide housing in proximity to employment, public facilities and transportation," [CFR Part 51 Section 105]. In this case, the noise levels may be shifted to 70 dBA. However, based on the Noise Reference Manual, Kaua'i Edition of February 2008, an approved Community Noise Permit may be required for construction projects exceeding 78 dBA or has a total cost of more than $250,000 (based on the value of the building permit). The Kaua'i County Housing Agency should consult with the DOH for appropriate noise permit requirements for this project. A noise permit may need to be issued by the DOH to allow construction operations. With these mitigation measures in place and acceptance of elevated standards through HUD, adverse impacts to noise would be reduced to less than significant. Long-term noise impacts may result from increased vehicular traffic in the vicinity of the project. However, any potential noise level increases are expected to be less than significant [Exhibit A, Section 3.1.10] [Exhibit C].

Air Quality Effects of Ambient Air Quality on Project and Contribution to Community Pollution Levels	4	Dust may be generated during construction activities. Also, increased vehicular traffic to and from the project area is anticipated resulting in increased air pollution. Traffic is expected to increase in the long term with the development of housing and increased population. Because the housing is designated as senior housing, increased vehicular traffic is anticipated to be minimal. Therefore, impacts to air pollution caused by long term vehicular traffic increase is expected to be minimal [Exhibit A, Section 3.1.9]. Long-term increases in exhaust emissions are anticipated within the vicinity of the project site; however, this does not constitute any significant effects island-wide. Long-term impacts to air quality from increased traffic circulation within the project area are anticipated to be minimal. Overall, potential impacts to air quality resulting from short-term and long-term changes are minimal and not significant. Mitigation measures for the proposed project will comply with the State DOH Administrative Rules, Title 11, Chapter 60-11.1 "Air Pollution Control." These measures include watering the project site during construction activities.
Environmental Design Visual Quality - Coherence, Diversity, Compatible Use and Scale	1	The project design will conform to the County of Kaua‘i codes and guidelines for residential development. The proposed development is consistent with the County of Kaua‘i General Plan.

Socioeconomic	**Code**	**Source or Documentation**
Demographic Character Changes	1	Demographic changes are expected to be insignificant. Increases in population have been steady on Kaua‘i and therefore there is a need for additional housing. A total of 60 units (38 one-bedroom and 22 two-bedroom) will be developed in the first phase of this project. The second phase of the project would provide an additional 24 units to the Site. The expected residence population is approximately 80 seniors [Exhibit A, Section 3.2.5].
Displacement	1	No residences, businesses, community facilities, farms or other activities would be displaced as a result of the proposed development. A short-term lease between the fire department and the County of Kaua‘i was used on the northern part of the project site as a baseyard for fire department vehicles.
Employment and Income Patterns	1	The proposed development may potentially generate direct and indirect jobs within the Līhu‘e community which is a potential beneficial impact.

Community Facilities and Services	**Code**	**Source or Documentation**
Educational Facilities	1	The proposed action will not have a significant effect on education facilities.
Commercial Facilities	1	Commercial businesses may experience slightly increased activity during the construction phase of the project. However, no significant impacts are expected to result from the proposed action.
Health Care	1	Health care facilities that provide services to elderly are abundant in the town of Līhu‘e. Many of the health care

		facilities available to the elderly are centrally located within the town of Līhu‘e. The nearest hospital is approximately one mile from the proposed housing development, and senior care facilities are located within a mile of the proposed development. The proposed action will not have any significant impact to health care.
Social Services	1	The proposed action will not have any significant impact to social services.
Solid Waste	1	Services to provide waste removal will be used to maintain the housing development. Effects of the housing development may show increased business in waste services. However, the proposed action is not anticipated to adversely impact solid waste collection services within the area.
Waste Water	4	Waste water will increase in the general location of the project area as more residents will be using the utilities and infrastructure provided. The waste water system service lines will be improved to facilitate the increased use. With these mitigation measures in place, there is no significant impact expected to result from the changes in waste water production.
Storm Water	4	Storm water systems should not be affected by the proposed development. The housing project should provide adequate drainage to reduce sedimentation and runoff at the parcels both during construction, and during operation of the proposed facilities. The contractor is also responsible to comply with National Pollution Discharge Elimination System (NPDES) requirements which include a Contractors Certification of NPDES Compliance including the BMP checklist and a written BMP plan. The State of Hawai‘i DOH will require a NPDES permit during the construction period as the Site is greater than one acre. BMPs would include erosion control measures to minimize potential sediment runoff to surface water and potentially groundwater. Any temporary discharge will be treated and/or controlled to the criteria established by the State Water Quality Standards. Additionally, a permanent detection basin is planned for the open area of TMK (4) 3-6-004:009. This detention basin would mitigate sedimentation to Nawiliwili Stream as it would capture stormwater runoff. Because these practices will be implemented, no significant impacts to water resources are anticipated under the proposed action.
Water Supply	1	Adequate water supply should be provided to the residents of the housing development. The water amount for the current area is expected to facilitate the housing development with no change to the current water storage system. The potable water demand is estimated to equal the current allotment at the project site [Exhibit A, Section 3.1.7].
Public Safety-Police	1	Current police services are expected to be adequate for the proposed project. However, plans to improve security are unknown.
Fire	1	The fire department is located adjacent to the project area and current services provided are expected to be

		adequate for the proposed residences.
Emergency Medical	1	Emergency medical facilities may readily access the residences as it is centrally located in the town of Lihu‘e. The nearest hospital is located less than 1.5 miles from the project area. The proposed project may increase demand for emergency medical services, however, the projected increase is not anticipated to be significant.
Open Space and Recreation	1	Open space is planned on the project site for the residences to use for gardening and other recreational purposes. There is no anticipated adverse impact to open space or recreational areas within the project area.
Recreation	1	See above.
Cultural Facilities	1	A central community hall will be located at the residence for programs to entertain and provide social activities for the residences. The proposed project is not anticipated to adversely impact cultural facilities within the area.
Transportation	1	Parking is provided at the project area. Transportation systems would not be significantly affected by the project. No major changes to transportation facilities are expected to be required.

Natural Features		**Source or Documentation**
Water Resources	4	The project area is located within the Līhu‘e aquifer sector and the Hanamaulu aquifer system. The upper aquifer (201021111 (21111)) has potential for use as drinking water with a salinity of less than 250 milligrams per liter of chloride or freshwater. It is an irreplaceable aquifer with high vulnerability to contamination. The lower aquifer (20102122 (21112)) is similar to the upper aquifer except it has a moderate vulnerability to contamination. The Hanamaulu Aquifer System has a drainage area of 55 square miles. High level dike aquifers in the Napali drain to streams and eventually as basal aquifers. Small capacity wells develop water for municipal use. The average annual rainfall in this system is 83 inches. Nawiliwili Stream is located adjacent to the project area. Construction activities should comply with BMPs to reduce the potential of sediment runoff to the stream and to storm drains. Runoff in the project area will be mitigated by using silt fences and County approved BMPs for reducing the potential of sediment impacts on the wetlands or other water resources. Nawiliwili Bay is located over 5,000 ft from the project area and is not likely to be impacted by the project. Construction activities will implement BMPs to include sediment barriers to protect neighboring sites, Nawiliwili Stream and coastal waters from the potential of runoff from the project activities. [Exhibit A, Section 3.1.7] [Exhibit B]
Surface Water	4	Nawiliwili Bay is classified as Class A coastal waters. Class A waters are intended for recreational purposes and aesthetic enjoyment and must be protected. These waters shall not receive waters for any discharge which has not received the best degree of treatment or control compatible

		with the criteria established for this class [Exhibit A, Section 3.1.7] [Exhibit B] As a mitigation measure, a detention basin is planned to be installed to capture storm runoff on the project site.
Unique Natural Features and Agricultural Lands	1	The project site is zoned as commercial (CG) and residential (R-20). There are no agricultural lands on the project site or adjacent to the project area [Exhibit A, Section 3.2.1].
Vegetation and Wildlife	4	The project area is not located within a critical habitat and the surrounding properties are not located within critical habitat. The nearest known critical habitat is a plant habitat located over one mile to the south of the project area. The project area consists of grass, shrubs and a few trees. In a response letter dated March 7, 2013 from the USFWS, the project area is not located near a wilderness area, a wildlife preserve, or a National Wildlife Refuge. "There is no proposed or designated critical habitat in the vicinity of the project site. Three seabird species, the federally endangered Hawaiian petrel, threatened Newell's shearwater, and a candidate for listing, the band-rumped storm petrel, are known to fly over the project area while traveling from sea to their breeding sites. Additionally, the federally endangered Hawaiian hoary bat may forage or roost in the vicinity of the proposed housing development. TMK parcel 4(3)-6-004:009 is vacant land that mainly consists of maintained grass lawn with a less than 10 trees in the maintained area; these trees range in size from approximately six to 25 feet. The surrounding border of the property is not maintained and is densely vegetated with tall grasses, shrubs and trees. Based on a recent survey map prepared for Kaua'i County Housing Agency, two of the larger trees were identified as a mango tree and an octopus tree. Two smaller trees were identified as Noni trees. The potential for fauna habitat is greater in these areas with the more densely populated vegetation The threatened Newell's shearwater, the endangered Hawaiian petrel, and a candidate for listing, the band-rumped storm petrel are known to traverse the project area when flying between the ocean and mountain nesting sites. Seabirds are vulnerable to collision with above ground objects throughout their breeding season of March through December 15. Once grounded, seabirds are vulnerable to predators and are often struck by vehicles along roadways. USFWS recommends using only essential lights, fully shielding all lights and avoiding nighttime construction that requires lighting to avoid and minimize potential impacts to seabirds. Nighttime construction is not anticipated. The endangered Hawaiian hoary bat roosts in exotic native woody vegetation and, while foraging, will leave her young unattended in "nursery" trees and shrubs. If trees and shrubs suitable for bat roosting are cleared during the breeding season, there is risk that young bats could inadvertently be harmed or killed. As a result, woody plants

		greater than 15 feet (4.6 meters) tall should not be removed or trimmed from June 1 and September 15. [Exhibit A, Section 3.1.5].

Other Factors		Source or Documentation
Flood Disaster Protection Act [Flood Insurance] [§58.6(a)]	1	The project area for the proposed project is categorized as FEMA Zone X and defined as an area outside of the 0.2% annual chance floodplain. Flood risks on Kaua‘i are primarily along the coast line [Exhibit A, Section 3.1.4].
Coastal Barrier Resources Act/ Coastal Barrier Improvement Act [§58.6(c)]	1	The project area is not located within the Coastal Barriers Resource System (CBRS). Currently, there are no CBRS map units established within the State of Hawai‘i (http://www.fws.gov/CBRA/Maps/Mapper.html)
Airport Runway Clear Zone or Clear Zone Disclosure [§58.6(d)]	1	The project area is located approximately 3,600 feet from the edge of the airport property boundary which is outside of the potential airport clear zone or accident potential zone of 2,500 feet. The project is located within 15 miles of Lihu‘e Airport which is regulated by the FAA [Exhibit A, Section 4].
Other Factors		

Summary of Findings and Conclusions

ALTERNATIVES TO THE PROPOSED ACTION

Alternatives and Project Modifications Considered [24 CFR 58.40(e), Ref. 40 CFR 1508.9] (Identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment of each alternative and the reasons for rejecting it.)

The proposed action is the development of affordable housing on the Rice Camp parcels at TMK Nos. (4)3-6-009:001 and (4)3-6-004:009. The current project plans include a total of 60 units built on the two parcels. Thirty-eight one-bedroom units approximately 649 square feet (sq. ft.) per unit and 22 two-bedroom units approximately 829 sq. ft. per unit are proposed to be built across both parcels. A community center with laundry facilities, community gardens, and landscaped open spaces are also proposed. Most of the units will be one-bedroom, one bath units with some two bedroom, one bath units. A detention basin is planned for the open space in the western portion of the project site. Future development includes another building with 24 housing units totaling 84 housing units across both parcels.

No Action Alternative [24 CFR 58.40(e)]
(Discuss the benefits and adverse impacts to the human environment of not implementing the preferred alternative).
Under the No Action Alternative, the affordable housing development project would not be constructed. There would be no disturbance of the existing environment, however, additional needed affordable housing would not be provided to senior residents on the Island of Kaua‘i. The Kaua‘i County Housing Agency is responsible for facilitating affordable housing opportunities to the residents of Kaua‘i. Providing these opportunities is the Kaua‘i County Housing Agency’s top priority.

Mitigation Measures Recommended [24 CFR 58.40(d), 40 CFR 1508.20]
(Recommend feasible ways in which the proposal or its external factors should be modified in order to minimize adverse environmental impacts and restore or enhance environmental quality.)
Mitigation measures are described throughout the above checklist and also within the Environmental Assessment as Exhibit A.

Additional Studies Performed

(Attach studies or summaries)

An Archaeological Inventory Study (AIS) and a Cultural Impacts Assessment (CIA) were completed to meet the requirements of Chapter 343 HRS and are included as part of the Environmental Assessment and Environmental Records Review [Exhibit A, Appendices C and E].

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)] [Exhibit A, Section 7 and Appendices B-1, B-2, F]

Department of Commerce National Marine Fisheries Service
U.S. Army Corps of Engineers Honolulu District
U.S. EPA Region 9
U.S. Fish and Wildlife Service
U.S. Geological Survey, Pacific Islands Water Science Center
U.S. National Park Service
USDA Natural Resources Conservation Service-Honolulu
USDA Natural Resources Conservation Service-Kauai
Department of Accounting and General Services
Department of Business, Economic Development & Tourism
Department of DBEDT - Strategic Industries Division (Energy Division)
Department of Defense
Department of Education
Department of Hawaiian Home Lands
Department of Health
Department of Human Services
Department of Land & Natural Resources-Honolulu
Department of Land & Natural Resources-State Historic Preservation Division
Natural Resource Conservation Service-Kaua‘i
Department of Transportation
Hawaii Department of Agriculture
Office of Environmental Quality Control
Office of Hawaiian Affairs- Honolulu
Office of Hawaiian Affairs- Kaua‘i
Public Utilities Commission
State Office of Planning
University of Hawaii Environmental Center
University of Hawaii Water Resources Research Center
Agency of Elderly Affairs
Department of Planning
Department of Public Works
Department of Public Works, Engineering Division
Department of Water
Fire Department
Kaua‘i County Housing Agency
Police Department
Transportation Agency
Association of Hawaiian Civic Clubs (Kaua‘i Civic Club)
Hui Kaleo'o 'Aina Ho'opulapula
Hui Malama Learning Center
Kaua‘i Historical Preservation Commission
Kaua'i /In'ihou Island Burial Council
Kaua‘i Historical Society
Kaua‘i Island Utility Cooperative
Nawilwili Watershed Council
Sierra Club, Hawaii Chapter
County Council Member
State Representative
State Senator
U.S. Representative
U.S. Senator
Hawaii Legislative Reference Bureau Library
Lihu‘e Library
State Library
University of Hawaii Hamilton Library
Honolulu Star Advertiser
The Garden Island
Hawaiian Telcom
Kaua‘i Island Utilities Cooperative

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