

DRAFT ENVIRONMENTAL ASSESSMENT

**KAMOLEAO LAULIMA COMMUNITY RESOURCE CENTER,
INCUBATOR KITCHEN AND ASSOCIATED FACILITIES**

TMK (3rd) 2-2-047:075 (por.)
Hilo, Hawai'i Island, State of Hawai'i

August 2009

State of Hawai'i
Hawaiian Homes Commission

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PROPOSING/APPROVING AGENCY:

State of Hawai'i, Hawaiian Homes Commission
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CLASS OF ACTION:

Use of State Land and Funds
Use of Federal Funds

This document is prepared pursuant to:

The Hawai'i Environmental Protection Act,
Chapter 343, Hawai'i Revised Statutes (HRS) and
Title 11, Chapter 200, Hawai'i Department of Health Administrative Rules (HAR).

TABLE OF CONTENTS

SUMMARY.....	ii
PART 1: PROJECT DESCRIPTION, PURPOSE AND NEED AND E.A. PROCESS.....	1
1.1 Project Description and Location	1
1.2 Purpose and Need and Background	6
1.3 Environmental Assessment Process	7
1.4 Public Involvement and Agency Coordination	8
PART 2: ALTERNATIVES	9
2.1 No Action	9
2.2 Alternative Locations	9
PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION	10
3.1 Physical Environment.....	10
3.1.1 Geology, Soils and Geologic Hazard.....	10
3.1.2 Drainage, Water Features and Water Quality	11
3.1.3 Flora, Fauna, and Ecosystems	12
3.1.4 Air Quality, Noise and Scenic Resources	15
3.1.5 Hazardous Substances, Toxic Waste and Hazardous Conditions	16
3.2 Socioeconomic and Cultural	16
3.2.1 Socioeconomic Characteristics	16
3.2.2 Archaeological and Cultural Resources	18
3.3 Infrastructure	22
3.3.1 Utilities	22
3.3.2 Traffic, Parking and Police/Fire/Emergency Services	23
3.4 Secondary and Cumulative Impacts	25
3.5 Required Permits and Approvals.....	27
3.6 Consistency With Government Plans and Policies.....	27
3.6.1 Hawai‘i State Plan.....	27
3.6.2 Hawai‘i County General Plan and Zoning	28
3.6.3 Hawai‘i State Land Use Law	29
3.6.4 Department of Hawaiian Home Lands Strategic Plans.....	30
PART 4: DETERMINATION.....	31
PART 5: FINDINGS AND REASONS.....	31
REFERENCES	33

LIST OF FIGURES

FIGURE 1 Project Location	2
FIGURE 2 Airphoto	3
FIGURE 3 Project Site Photos	3
FIGURE 4a Site Plan: Overall (Conceptual)	4
FIGURE 4b Site Plan: Floor Plan and Elevations (Conceptual)	5
FIGURE 5 Kamoleao Master Plan	26

LIST OF TABLES

TABLE 1 Plant Species Detected on 12.77-Acre Property.....	13
TABLE 2 Selected Socioeconomic Characteristics	17

LIST OF APPENDICES

APPENDIX 1a	Comments in Response to Early Consultation
APPENDIX 2	Archaeological Letter
APPENDIX 3	Cultural Impact Assessment

SUMMARY

The Kamoleao Laulima Community Resource Center Incubator Kitchen is designed to educate, support and nurture the Hawaiian people of Pana‘ewa Hawaiian Home Lands and adjacent Hilo communities. The project consists of a 1,800-square-foot building containing a commercial kitchen and a classroom, a community garden area and associated facilities including a parking lot and an individual wastewater system or sewer line extension. The project would be developed on a 1.5-acre portion of a 12.77-acre Department of Hawaiian Home Lands property located along ‘Ohu‘ohu Street. Surveys and consultation have determined that no significant archaeological, cultural or biological resources are present. Utilities are adequate for the site, and traffic flow will not be significantly affected.

PART 1: PROJECT DESCRIPTION, PURPOSE AND NEED AND ENVIRONMENTAL ASSESSMENT PROCESS

1.1 Project Description and Location

The Kamoleao Laulima Community Resource Center (KLCRC) Incubator Kitchen is designed to educate, support and nurture the Hawaiian people of Pana‘ewa Hawaiian Home Lands and adjacent Hilo communities. Three entities, Pana‘ewa Hawaiian Homes Community Association (PHHLCA), Ha‘ola, Inc. (a community non-profit organization) and Hawai‘i Community College (HCC), have been awarded federal funds to build the center’s kitchen and associated facilities in Pana‘ewa Hawaiian Home Lands in Hilo. The project would be developed on a 1.5-acre portion of a 12.77-acre Department of Hawaiian Home Lands property located along ‘Ohu‘ohu Street (Figures 1-4). The project consists of a 1,800-square-foot building containing a commercial kitchen, classroom and associated facilities, including a garden. The kitchen will be used for fundraising activities, cooking classes and food demonstrations. The classroom will provide space for community meetings, cultural and social gatherings and various educational opportunities. The project also includes a parking lot and an individual wastewater system or sewer line extension.

The initial vision of “Kamoleao” was born in 1993 under the guidance of kupuna (elders) of the Pana‘ewa community. The literal definition of Kamoleao is young shoots of the taro plant (mole) and the bright sun (ao). Metaphorically it means “growing from the foundation of the ancestors.” The master plan for Kamoleao was assembled in 1994, and in 1995 the state Department of Hawaiian Home Lands granted PHHLCA and Ha‘ola a 30-year license for 14 acres of land for Kamoleao (March 15, 1995 – March 14, 2025 - DHHL License Agreement No. 365). In 2004, DHHL reclaimed 1.23 acres of the parcel for lease to the adjacent Home Depot store, leaving 12.77 acres remaining for use by the groups. The master plan was updated in 2002, 2005 and again in 2007, at which time it was determined that the \$25 million cost was prohibitive for the entities involved. Although additional elements may be funded and implemented in the future, including environmental documentation as appropriate, the plan was then narrowed to a community resource center. In 2008 the two groups and Hawai‘i Community College received a 3-year grant from the U.S. Department of Housing and Urban Development’s Alaskan Native/Native Hawaiians Assisting Communities program to build the center. Hawai‘i Community College will serve as fiscal sponsor and project manager for the first three years of the center’s existence and will also provide technical assistance and education in Hawaiian culture, commercial food production and business and construction technology. Thereafter, PHHLCA and Ha‘ola will assume all fiscal and management responsibilities for the KLCRC.

The center will be located on a half-acre of land and will include a driveway, parking area and 12-foot covered lanai. A community garden about one acre in size will be developed adjacent to the building. Community and student volunteers will assist in the construction of the building and preparation and cultivation of the garden. The garden will be used by KLCRC and community members for the cultivation of native fruits, vegetables and herbs for personal consumption and marketable produce and to create value-added products to be sold at KLCRC’s ‘Ohu‘ohu farmers

Figure 1. Project Location USGS Map

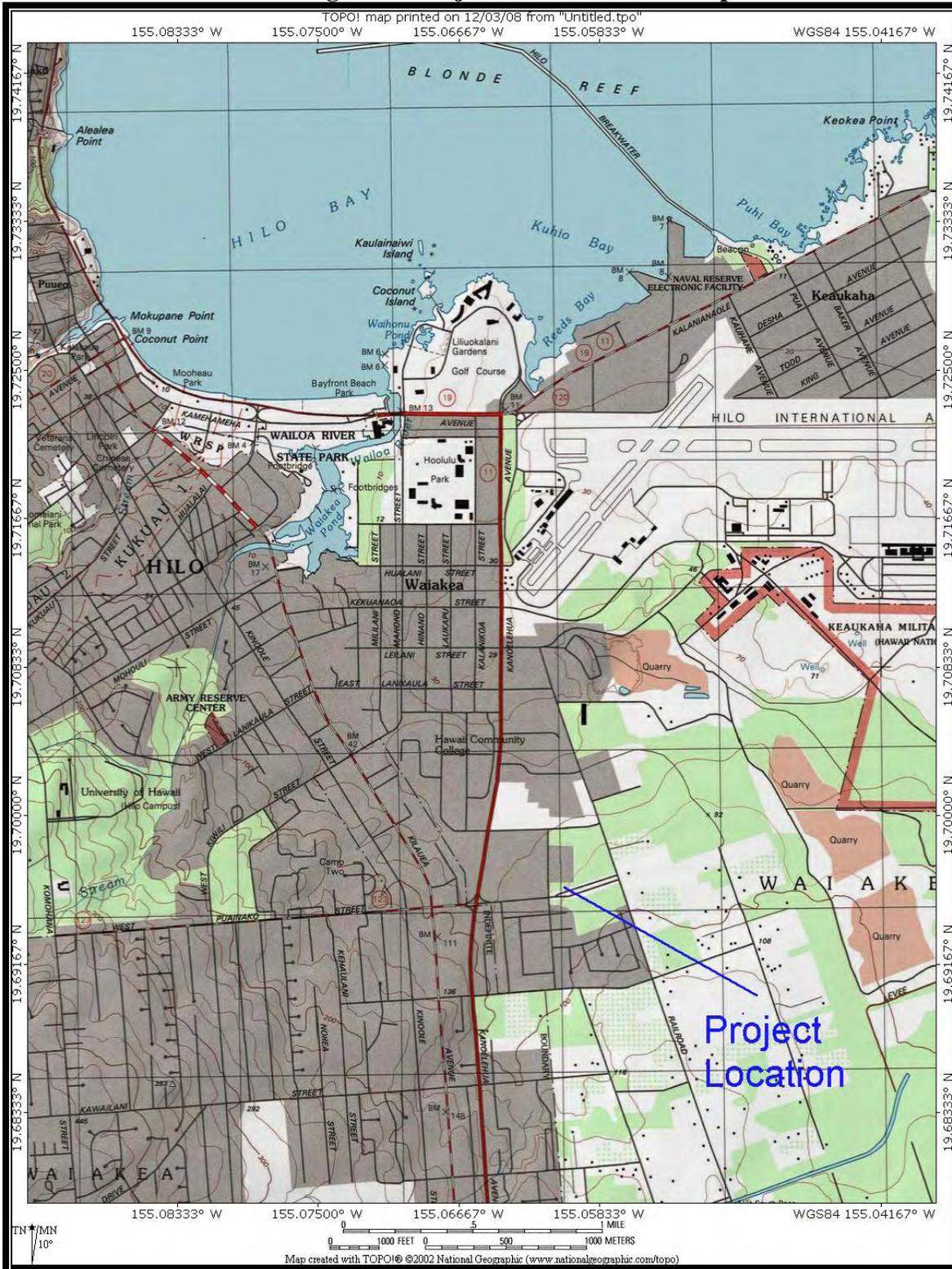


Figure 2. Airphoto

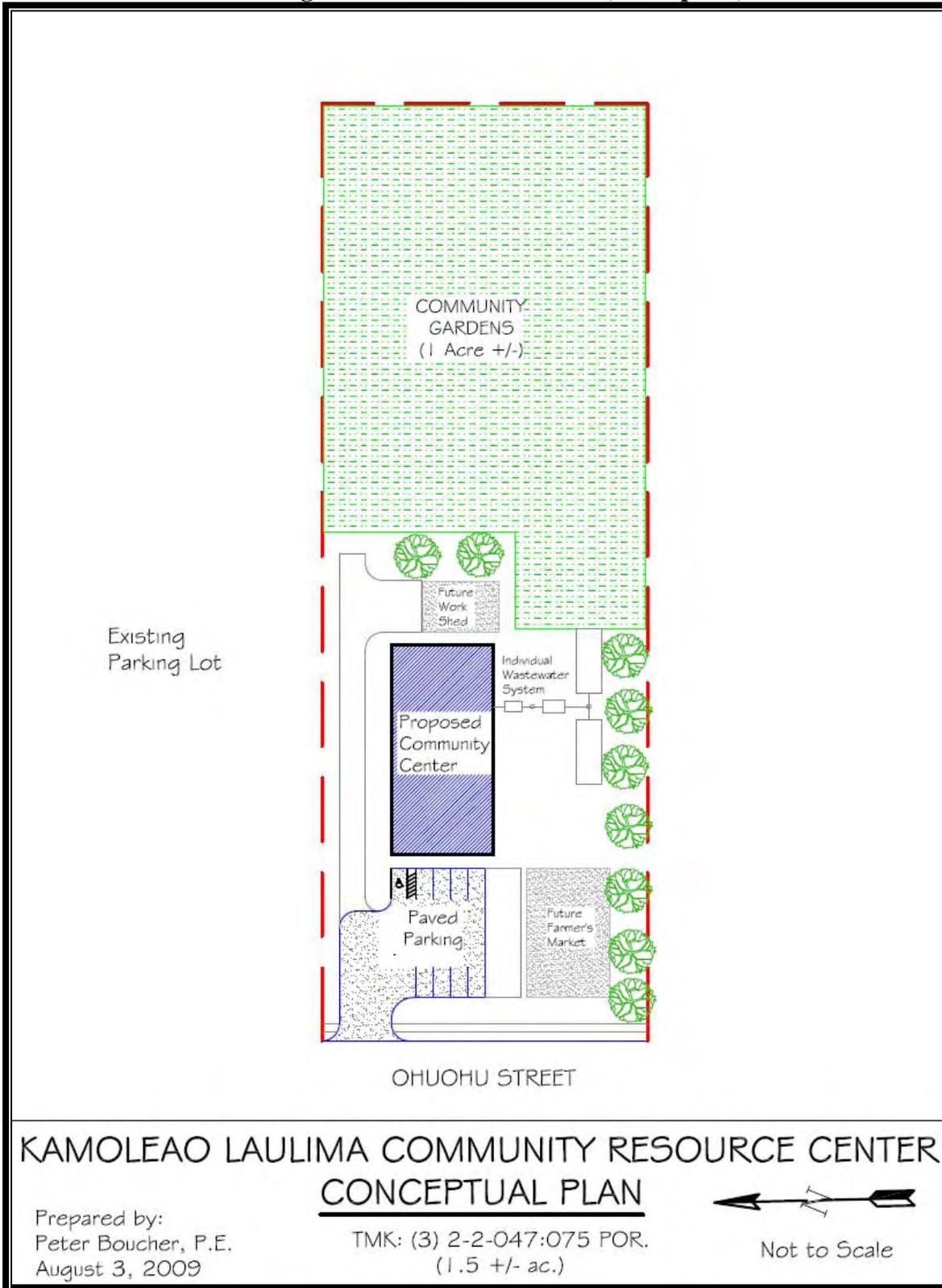


from Microsoft Virtual Earth ©

Figure 3. Project Site Photo



Figure 4a. Site Plan: Overall (Conceptual)



market. It will also provide a learning environment for school-age children, college students and community members. The project site will be landscaped primarily with native plants and Polynesian species to provide both a suitable sense of place and useful food crops. By time period, programs are envisioned as follows:

- **Weekday Morning and Afternoons:**
 - Commercial Food vendors and community organizations, with an average of 5 vendors using commercial kitchen daily;
 - Workshops and meetings (as scheduled, 10 -20 people)
- **Evenings and weekends:**
 - Classes in Hawaiian culture, food preparation, gardening, microenterprise business development, financial literacy, and community meetings: 10 – 30 people, depending on event.
- **Weekends:**
 - Small private parties (40 maximum).
 - Community garden (5 – 10 individuals at a time)
 - Farmer’s Market (10 – 20 at a time)
 - Composting and gardening workshops (5 – 10 individuals)

1.2 Purpose and Need and Background

The project will help address the economic, social, health and cultural needs of native Hawaiians in the Pana‘ewa Hawaiian Home Lands and neighboring communities. Across the State, native Hawaiians face a myriad of socioeconomic challenges, including a lower income, higher unemployment rate and nearly twice the poverty rate when compared to the State’s overall population. The median age of native Hawaiians is about 25 years, roughly 15 years younger than the State average, which demonstrates the need for education initiatives and community development.

Kamoleao is a community-driven initiative, whose two-year planning effort provides a stepping-stone towards the realization of the community’s 14-year dream of creating a community and cultural center at Kamoleao. The project affirms the vision of the community and their kupuna, four of whom have passed away: Aunties Abby Napiahi, Eleanor Ahuna, Maile Akimseu, Myra Chartrand and Erma Yamada. The project has a long history:

- 1994: Community visioning creating action plan and naming of Kamoleao; Kimura International creates 1994 Conceptual Master Plan for Kamoleao.
- 1995: PHHLCA and Ha‘ola Inc sign 30-year license agreement with DHHL for 14-acres at Kamoleao for the purpose of building community and cultural center;
- 1995 – 98: Clearing, building a rock wall, landscaping and planting native trees at the front (Olu Olu Street);
- 1995 – 2009: Community work-crews maintain area regularly, including lawn mowing, and landscaping;
- 1997 – 2002: Occasional open-air Farmer’s Markets at Kamoleao site;

Kamoleao Laulima Community Resource Center Environmental Assessment

- 1996 – 2008: Occasional family and community events and picnics;
- 1998 - \$10K grant from the Hawai‘i Department of Land and Natural Resources for a “Forest Stewardship Program.” This led to construction of a system of walking trails focusing on identification of indigenous, endemic plants and alien plant species. Ultimately, many of these plants were overtaken by alien species and the community was not able to maintain the forest.
- 2005 Master Plan Update by PBR, costing PPHLCA and Ha‘ola Inc \$16K;
- 2007 - 2008 Kamoleao Steering Committee comprised of 15 community members from Pana‘ewa and Keaukaha Hawaiian Home Lands and stakeholders to develop a realistic plan to begin development of Kamoleao. Hawaiian organizations include representatives from Ka Umeke Kaeo Hawaiian Immersion Public Charter School, Queen Lili‘uokalani Children’s Center, Hui Malama Native Hawaiian Health Care, Keaukaha/Pana‘ewa Farmers Assn., Ha‘ola Inc. and Alu Like; Kupuna Maile Akimseu, Erma Yamada and Leona Toler. The outcome of this effort was a vision for the Kamoleao Laulima Community Resource Center & Community Garden, leading to a partnership with Hawai‘i Community College to apply for the current HUD Grant.
- April 22, 2007: PPHLCA Kamoleao presentation to Hawaiian Homes Commissioners at Lihue, Kaua‘i.
- August 2007 Kamoleao Blessing Ceremony: Attended by 100 community members and Chair Micah Kane, fellow Hawaiian Homes Commissioners, OHA Representatives, community members from Pana‘ewa, Keaukaha, Maku‘u and Keaukaha, Maku‘u and Keaukaha/Pana‘ewa Farmers Associations and our political representatives, Cliff Tsuji, Dwight Takamine, Emily Naeole, Billy Kenoi former executive assistant to Mayor Harry Kim and present Hawai‘i County Mayor.
- September 2008: \$605K HUD grant and partnership with Hawai‘i Community College to build 1,800 sq. ft. Kamoleao Laulima Community Resource Center and 1-acre community garden.
- Jan. 24, 2009: Pana‘ewa Community Visioning Workshop Update, reaffirming Kamoleao Laulima Community Resource Center Project at Kamoleao.
- March 24, 2009: Hawaiian Homes Commission approves Pana‘ewa Regional Plan with amendments to support Kamoleao Laulima Community Resource Center and the needed Environmental Assessment.

1.3 Environmental Assessment Process

This Environmental Assessment (EA) process is being conducted in accordance with Chapter 343 of the Hawai‘i Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawai‘i Administrative Rules (HAR), is the basis for the environmental impact process in the State of Hawai‘i. According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria. Part 4 of this document states the anticipated finding that no significant impacts are expected to occur; Part 5 lists each criterion and presents the findings for each made by the State of Hawai‘i, Department of Hawaiian Home Lands (DHHL), the approving agency.

Separately, environmental documentation in conformance with the National Environmental Policy Act (NEPA) and the implementing regulations of the U.S. Department of Housing and Urban

Development (HUD) for NEPA, at 24 CFR Part 50, is also being undertaken. A HUD Environmental Assessment under the Alaskan Native/Native Hawaiians Assisting Communities program has been prepared.

1.4 Public Involvement and Agency Coordination

The following agencies and organizations were consulted in development of this document.

Federal:

U.S. Fish and Wildlife Service
U.S. Army Corps of Engineers

State:

Department of Hawaiian Home Lands
Department of Land and Natural Resources, Historic Preservation Division
Office of Hawaiian Affairs, Honolulu and East Hawai'i Offices
Department of Health

County:

Department of Planning
Department of Public Works
Department of Environmental Management
Department of Water Supply
Police Department
County Council

Private:

Pana'ewa and Keaukaha Hawaiian Home Lands Community Associations
Hawaiian Civic Club of Hilo
Hawai'i Island Chamber of Commerce
Sierra Club

Copies of communications received during early consultation are contained in Appendix 1a.

PART 2: ALTERNATIVES

2.1 No Action

Under the No Action Alternative, the facility would not be constructed, and the thousands of native Hawaiians living in the Pana‘ewa area and surrounding communities would not benefit from the KLCRC’s incubator kitchen and other resources and would continue to lack the economic and cultural opportunities the project would provide. Because of the need for such opportunities in this area, the project proponents and the Department of Hawaiian Home Lands considers the No Action Alternative highly undesirable.

2.2 Alternative Locations

Because of the need to locate a community center in a convenient location within the Pana‘ewa community and the requirement for free or minimally priced land, very few alternative properties are available for consideration. The only government land available in the area belongs to the Department of Hawaiian Home Lands, which has various properties in the area that are either not leased or for which leases may be terminated. Though such sites might be theoretically feasible, there is a long history of focus on this particular site, which has led to a deep community commitment and investment.

The Pana‘ewa Hawaiian Home Lands Community Association and Ha‘ola, Inc. have been pursuing development of the center on the subject parcel since 1993 under the guidance of kupuna (elders). In 1994, the groups presented their master plan for the project to DHHL and were awarded a 30-year lease on the property the following year. The proposed site is identified in PHHLCA and Haola Inc’s 30-year license agreement with DHHL (1995). This agreement specifically identifies Kamoleao to be used for the “the purposes of developing, managing, using, maintaining and protecting such premises as a community center, as generally described in LICENSEES’ Kamoleao Master Plan.” Kamoleao has special and historical significance to the Pana‘ewa community. In fact, the site “Kamoleao” was named by Dr. Pualani Kanaka‘ole Kanahale and the kupuna of Pana‘ewa and Keaukaha Hawaiian Home Lands. Spiritually and metaphorically Kamoleao means “*growing from the foundation of our ancestors.*” The name “Kamoleao” was specifically given for the parcel identified in the license agreement with DHHL should not be taken lightly nor used for another site. Many in the community believe that applying this name to another property would be hewa (wrong). Given the investment of time and resources into the subject parcel, and the fact that the inventory of other centrally located available land on Pana‘ewa Hawaiian Home Lands property with appropriate vehicular and utility access is limited, no alternative sites have been advanced in this Environmental Assessment.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Basic Geographic Setting

The property upon which the Kamoleao Laulima Community Resource Center would be constructed is referred to in this EA as the *project site*. The term *project area* is used to describe the general environs of this part of Hilo.

The project site is located at about 90 feet in elevation east of ‘Ohu‘ohu street and on the north side of East Puainako Street in the Pana‘ewa Hawaiian Home Lands in Hilo (see Figs. 1-2). The climate is warm and moist. The average rainfall is approximately 135 inches (U.H. Hilo-Geography 1998:57).

Physical Environment

3.1.1 Geology, Soils and Geologic Hazards

Environmental Setting

The surface of the property is lava from Mauna Loa Volcano dated 750-1,500 years before the present (Wolfe and Morris 1996). The project site soil is classified by the U.S. Natural Resources Conservation Service (formerly Soil Conservation Service) as Papai extremely stony muck (rPAE), which is a well-drained, thin, extremely stony organic soil developed over fragmented ‘a‘a lava. The soils are rapidly permeable, runoff is moderate, and the erosion hazard slight. Its Capability Subclass is IV, which means soils of this type are typically used for pasture and woodlands (U.S. Soil Conservation Service 1973).

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. Volcanic hazard as assessed by the United States Geological Survey in this area of Hilo is zone 3, on a scale of ascending risk from 9 to 1 (Heliker 1990:23). The high hazard risk is based on the fact Mauna Loa is presently an active volcano. Volcanic hazard zone 3 areas have had 1-5% of their land area covered by lava or ash flows since the year 1800, but are at lower risk than zone 2 areas because of their greater distances from recently active vents and/or because the local topography makes it less likely that flows will cover these areas.

In terms of seismic risk, the entire Island of Hawai‘i is rated Zone 4 Seismic Hazard (*Uniform Building Code, 1997 Edition, Figure 16-2*). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built. On Sunday October 15, 2006, two damaging earthquakes struck the west side of Hawai‘i Island of magnitude 6.7 and 6.0. These earthquakes caused no damage to the project site.

Impacts and Mitigation Measures

The project site is susceptible to lava flow and seismic hazard. However, as much of the island has similar hazard levels, geologic hazards impose no particular constraints on the proposed action, and the proposed facilities are not imprudent to construct. Project design will take soil properties into account. All facilities will be built in conformance with the Uniform Building Code's seismic standards.

3.1.2 Drainage, Water Features and Water Quality

Existing Environment

The project area has no perennial surface water bodies and no known areas of local (non-stream related) flooding are present. According to the Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) 1551660880C (9/16/1988), the project site is in Flood Zone X, outside the 500-year flood plain. Maps printed by the Pacific Tsunami Warning Center and the Hawai'i County Civil Defense Agency locate the parcel more than a mile outside the area that should be evacuated during a tsunami warning (<http://www.co.hawaii.hi.us/cd/tsunami/Map2.pdf>). A large area of coastal Hilo has been struck by several highly destructive tsunami in historic times. The May 23, 1960 tsunami had a runup of 35 feet at Hilo Bay, killing 61 people and destroying about 540 homes and businesses while the April 1, 1946 tsunami had a runup at Hilo Bay of 25 feet (*Atlas of Hawai'i*, 3rd edition).

Impacts and Mitigation Measure

Because of the limited scale of construction and the environmental setting, the risks for flooding or impacts to water quality are negligible. No impacts to stream, wetlands, or any other waters of the U.S., will occur, as none are present.

In order to minimize the potential for sedimentation and erosion, the contractor shall perform all earthwork and grading in conformance with Chapter 10, Erosion and Sediment Control, Hawai'i County Code. A Sedimentation and Erosion Control Plan (SECP) will be prepared as part of the County DPW Grading Permit Application process. In order to properly manage storm water runoff, the SECP will describe the emplacement of a number of best management practices (BMPs) for the project. These BMPs may include, but will not be limited to, the following:

- Minimization of soil loss and erosion by revegetation and stabilization of slopes and disturbed areas of soil, possibly using hydromulch, geotextiles, or binding substances, as soon as possible after working;
- Minimization of sediment loss by emplacement of structural controls possibly including silt fences, gravel bags, sediment ponds, check dams, and other barriers in order to retard and prevent the loss of sediment from the site;

- Minimizing disturbance of soil during periods of heavy rain;
- Phasing of the project to disturb the minimum area of soil at a particular time;
- Application of protective covers to soil and material stockpiles;
- Construction and use of a stabilized construction vehicle entrance, with designated vehicle wash area that discharges to a drainage sump;
- Washing of vehicles in the designated wash area before they egress the project site;
- Use of drip pans beneath vehicles not in use in order to trap vehicle fluids;
- Routine maintenance of BMPs by adequately trained personnel;
- Coordination of storm water BMPs and wind erosion BMPs whenever possible; and
- Cleanup and disposal at an approved site of significant leaks or spills, if they occur.

According to Joanna Seto of the Hawai'i State Department of Health, Clean Water Branch, an NPDES Individual Permit Authorizing Discharges of Storm Water Associated with Construction Activities is not required since the total disturbed area, exclusive of the community gardens, is less than one acre. A Soil and Water Conservation District Conservation Plan will be prepared for the agricultural aspect of the project.

3.1.3 Flora, Fauna and Ecosystems

Existing Environment

The natural vegetation of this part of Hilo was most likely lowland rain forest dominated by 'ohi'a (*Metrosideros polymorpha*) and hala (*Pandanus tectorius*) (Gagne and Cuddihy 1990). The existing vegetation indicates that portions of the study property have undergone mechanical alteration in places in the past, but the underlying dominants remain, despite being heavily invaded by alien species. On the property as a whole, of which the 1.5-acre portion is typical, a number of 30-60 foot tall 'ohi'a persist but do not appear to be regenerating. In 1998, Ha'ola undertook a forest stewardship of the property under a grant from the Department of Land and Natural Resources. The stewardship program consisted of bulldozing roadways and the creation of walking trails. Alien vegetation was also removed and native vegetation reintroduced. For various reasons, the project did not succeed in restoring the forest and alien vegetation encroached to an even greater degree after abandonment.

Today, the most abundant plant in terms of density is the alien waiawi (*Psidium cattleianum*), with several hundreds or even thousands of plants per acre. Other alien canopy trees/shrubs are also prominent, including albizia (*Paraserianthes falcataria*), Chinese banyan (*Ficus microcarpa*), *Trema orientalis*, *Melochia umbellata*, *Cecropia obtusifolia*, African tulip (*Spathodea campanulata*), and *Melastoma candidum*. Natives include uluhe (*Dicranopteris linearis*), which is concentrated in a few locations; kopiko (*Psychotria* sp.), which is rare; a few hapu'u (*Cibotium* spp.); and various ferns, vines, and herbs. A botanical survey determined that there several native species but no listed rare, threatened or endangered plant species. A full list of species found on the entire 12.77-acre property is provided in Table 1.

**Table 1
Plant Species Detected on 12.77-Acre Property**

Scientific Name	Family	Common Name	Life Form	Status
<i>Aleurites moluccana</i>	Euphorbiaceae	Kukui	Tree	A
<i>Andropogon virginicus</i>	Poaceae	Broomsedge	Herb	A
<i>Archontophoenix alexandrae</i>	Arecaceae	King Palm	Tree	A
<i>Asystasia gangetica</i>	Acanthaceae	Chinese Violet	Vine	A
<i>Axonopus sp.</i>	Poaceae	Carpetgrass	Herb	A
<i>Begonia sp.</i>	Begoniaceae	Begonia	Herb	A
<i>Bidens alba</i>	Asteraceae	Beggartick	Herb	A
<i>Blechnum occidentale</i>	Blechnaceae	Blechnum	Fern	A
<i>Brachiaria mutica</i>	Poaceae	California Grass	Herb	A
<i>Buddleia asiatica</i>	Buddleiaceae	Butterfly Bush	Shrub	A
<i>Canavalia sp.</i>	Fabaceae	Mauna Loa	Vine	???
<i>Cecropia obtusifolia</i>	Cecropiaceae	Trumpet Tree	Tree	A
<i>Cestrum nocturnum</i>	Solanaceae	Night-Jasmine	Shrub	A
<i>Chamaecrista nictitans</i>	Fabaceae	Partridge Pea	Herb	A
<i>Christella dentata</i>	Thelypteridaceae	Cyclosorus	Fern	A
<i>Christella parasitica</i>	Thelypteridaceae	Cyclosorus	Fern	A
<i>Cibotium glaucum</i>	Dicksoniaceae	Hapu‘u Pulu	Fern	I
<i>Cibotium menziesii</i>	Dicksoniaceae	Hapu‘u I‘i	Fern	I
<i>Clidemia hirta</i>	Melastomataceae	Koster’s Curse	Herb	A
<i>Clusia rosea</i>	Clusiaceae	Autograph Tree	Tree	A
<i>Cocculus trilobus</i>	Menispermaceae	Huehue	Vine	I
<i>Commelina diffusa</i>	Commelinaceae	Honohono	Herb	A
<i>Cordyline fruticosa</i>	Agavaceae	Ti	Shrub	A
<i>Cuphea carthagenensis</i>	Lythraceae	Tarweed	Herb	A
<i>Desmodium incanum</i>	Fabaceae	Spanish Clover	Herb	A
<i>Dicranopteris linearis</i>	Gleicheniaceae	Uluhe	Fern	I
<i>Digitaria ciliaris</i>	Poaceae	Henry’s Crabgrass	Herb	A
<i>Digitaria fuscescens</i>	Poaceae	Crabgrass	Herb	A
<i>Digitaria setigera</i>	Poaceae	Itchy Crabgrass	Herb	I(?)
<i>Drymaria cordata</i>	Caryophyllaceae	Drymaria	Herb	A
<i>Elusine indica</i>	Poaceae	Goosegrass	Herb	A
<i>Emilia fosbergii</i>	Asteraceae	Flora’s Paintbrush	Herb	A
<i>Ficus microcarpa</i>	Moraceae	Chinese Banyan	Tree	A
<i>Ipomoea indica</i>	Convolvulaceae	Morning Glory	Vine	I
<i>Ipomoea triloba</i>	Convolvulaceae	Little Bell	Vine	A
<i>Lantana camara</i>	Verbenaceae	Lantana	Shrub	A
<i>Lepisorus thunbergianus</i>	Polypodiaceae	Ekaha Akolea	Fern	I
<i>Macaranga mapp</i>	Euphorbiaceae	Bingabing	Tree	A
<i>Mangifera indica</i>	Anacardiaceae	Mango	Tree	A
<i>Melastoma sp.</i>	Melastomataceae	Melastoma	Shrub	A
<i>Melinis minutiflora</i>	Poaceae	Molasses Grass	Herb	A
<i>Melochia umbellata</i>	Sterculiaceae	Melochia	Tree	A
<i>Metrosideros polymorpha</i>	Myrtaceae	‘Ohi‘a	Tree	I
<i>Michelia sp.</i>	Magnoliaceae	Michelia	Tree	A

Table 1, cont'd				
Scientific Name	Family	Common Name	Life Form	Status
<i>Miconia calvescens</i>	Melastomataceae	Miconia	Tree	A
<i>Nephrolepis cordifolia</i>	Nephrolepidaceae	Sword Fern	Fern	I
<i>Nephrolepis multiflora</i>	Nephrolepidaceae	Sword Fern	Fern	A
<i>Ophioderma pendulum</i>	Ophioglossaceae	Adder's Tongue	Fern	I
<i>Oplismenus hirtellus</i>	Poaceae	Basketgrass	Herb	A
<i>Oxalis sp.</i>	Oxalidaceae	Oxalis	Herb	A
<i>Paederia foetida</i>	Rubiaceae	Maile Pilau	Vine	A
<i>Pandanus tectorius</i>	Pandanaceae	Hala	Tree	A
<i>Panicum maximum</i>	Poaceae	Guinea Grass	Herb	A
<i>Panicum repens</i>	Poaceae	Torpedo Grass	Herb	A
<i>Paraserianthes falcataria</i>	Fabaceae	Albizia	Tree	A
<i>Paspalum conjugatum</i>	Poaceae	Hilo Grass	Herb	A
<i>Paspalum sp.</i>	Poaceae	Paspalum	Herb	A
<i>Persea americana</i>	Lauraceae	Avocado	Tree	A
<i>Phaius tankarvilleae</i>	Orchidaceae	Ground Orchid	Herb	A
<i>Phlebodium aureum</i>	Polypodiaceae	Hare's Foot Fern	Fern	A
<i>Phymatosorus scolopendria</i>	Polypodiaceae	Maile Scented Fern	Fern	A
<i>Pilea nummularifolia</i>	Urticaceae	Pilea	Herb	A
<i>Pluchea symphytifolia</i>	Asteraceae	Sour Bush	Shrub	A
<i>Polygala paniculata</i>	Polygalaceae	Polygala	Herb	A
<i>Polygonum capitatum</i>	Polygonaceae	Knotweed	Herb	A
<i>Psidium cattleianum</i>	Myrtaceae	Waiawi	Tree	A
<i>Psidium guajava</i>	Myrtaceae	Guava	Tree	A
<i>Psilotum nudum</i>	Psilotaceae	Moa	Fern Ally	I
<i>Psychotria hawaiiensis</i>	Rubiaceae	Kopiko Ula	Tree	I
<i>Pteris vittata</i>	Pteridaceae	Pteris	Fern	A
<i>Rhynchelytrum repens</i>	Poaceae	Natal Red Top	Herb	A
<i>Rubus rosifolius</i>	Rosaceae	Thimble Berry	Herb	A
<i>Sacciopeles indica</i>	Poaceae	Glenwood Grass	Herb	A
<i>Scaevola sericea</i>	Goodeniaceae	Naupaka Kai	Shrub	I
<i>Schefflera actinophylla</i>	Araliaceae	Octopus Tree	Tree	A
<i>Schizachyrium condensatum</i>	Poaceae	Beard Grass	Herb	A
<i>Setaria palmifolia</i>	Poaceae	Palmgrass	Herb	A
<i>Setaria sp.</i>	Poaceae	Foxtail	Herb	A
<i>Solanum americanum</i>	Solanaceae	Popolo	Herb	I
<i>Spathodea campanulata</i>	Bignoniaceae	African Tulip	Tree	A
<i>Sporobolus sp.</i>	Poaceae	Sporobolus	Herb	A
<i>Stachytarpheta sp.</i>	Verbenaceae	Vervain	Herb	A
<i>Torenia glabra</i>	Scrophulariaceae	Olaa Beauty	Herb	A
<i>Trema orientalis</i>	Ulmaceae	Gunpowder Tree	Tree	A
<i>Veitchia sp.</i>	Arecaceae	Veitchia	Tree	A
<i>Wedelia trilobata</i>	Asteraceae	Wedelia	Herb	A
<i>Youngia japonica</i>	Asteraceae	Oriental Hawksbeard	Herb	A

A=Alien E=Endangered I=Indigenous End=Federal and State Listed Endangered

No streams or wetlands are present on the property and it is surrounded on all sides by developed property.

Most animals found on the property are alien, including a variety of alien birds, dogs, cats, rats, mice, and invertebrates. Native terrestrial vertebrates may be present in the general area and may overfly, roost, nest, or utilize resources of the property, including the endangered Hawaiian Hawk (*Buteo solitarius*), the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened Newell's Shearwater (*Puffinus auricularis newelli*). These species are found throughout the urban areas of Hilo. The project proponents have committed to measures in order to avoid impacts to these species. Specifically, the project will commit to refrain from activities that disturb or remove the vegetation between the months of March and September, inclusive, and to shield any lighting.

In response to a request for informal Section 7 consultation, Jeff Zimpfer of the U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, stated in February 2009 in a phone conversation to the author of this EA that the Service had determined that the project, as proposed with mitigation measures related to the timing of vegetation clearing and shielded lighting, will not result in the take of any listed species or adverse modification of any critical habitat.

Impacts and Mitigation Measures

Because of the lack of native ecosystems, or threatened or endangered plant species, no adverse impacts to biological resources would occur as a result of construction and occupation of the site.

3.1.4 Air Quality, Noise, and Scenic Resources

Environmental Setting

Air pollution in East Hawai'i is minimal, and is mainly derived from volcanic emissions of sulfur dioxide, which convert into particulate sulfate and produce a volcanic haze (vog) that occasionally blankets the district, particularly during instances of southerly or "kona" wind conditions. The persistent tradewinds keep the project area relatively free of vog for most of the year.

Noise on the project site is moderate and derived mainly from nearby commercial and residential activities as well as motor vehicles, with occasional noise from road use and maintenance activities.

The project area does not contain any sites that are considered significant for their scenic character in the Hawai'i County General Plan.

The general project area, including the project site, is in commercial and residential use and does not exhibit scenic resources or viewplanes considered significant for their scenic character in the Hawai'i County General Plan.

Impacts and Mitigation Measures

Development would entail limited excavation, grading, compressors, vehicle and equipment engine operation, and construction of new infrastructure. These activities may generate noise exceeding 95 decibels at times, impacting nearby sensitive noise receptors. In cases where construction noise is expected to exceed the Department of Health's (DOH) "maximum permissible" property-line noise levels, contractors are required to obtain a permit per Title 11, Chapter 46, HAR (Community Noise Control) prior to construction. Prior to construction, the contractor will consult with the DOH, which will review the proposed activity, location, equipment, project purpose, and timetable in order to decide upon conditions and mitigation measures, such as restriction of equipment type, maintenance requirements, restricted hours, and portable noise barriers.

The center will not produce emissions, and there are no indications of air quality violations that would make the area unacceptable for its proposed use.

No important viewplanes or scenic sites recognized in the Hawai'i County General Plan would be affected, and the project would involve essentially no scenic impacts.

3.1.5 Hazardous Substances, Toxic Waste and Hazardous Conditions

No professional evaluation such as a Phase I Environmental Site Assessment (ESA) was performed on the property. Based on onsite inspection, it appears that the site contains no hazardous or toxic substances and exhibits no other hazardous conditions.

3.2 Socioeconomic and Cultural

3.2.1 Socioeconomic Characteristics

The project would affect and benefit the Pana'ewa area and, more generally, Hilo and East Hawai'i. Table 2 provides information on the socioeconomic characteristics of Hilo along with those of Hawai'i County as a whole for comparison, from the United States 2000 Census of Population. Hilo and Hawai'i County in general have a diverse population that is among the 100 fastest-growing counties in the U.S. The proportion of the Hawaiian population in Hilo is more than one-third greater than that of the County as a whole. Several segments of the population that typically exhibit disadvantaged measures of social welfare are disproportionately represented in the population of Hilo as compared to the County or State of Hawai'i. Median family income is less than 65 percent that of the County as a whole. More than 15 percent of individuals have income below the poverty level, double the statewide rate. Similar patterns pertain to households receiving welfare, food stamps, and disability payments.

Table 2
Selected Socioeconomic Characteristics

CHARACTERISTIC	ISLAND OF HAWAI'I	HILO
Total Population	148,677	40,759
Percent Caucasian	31.5	17.1
Percent Asian	26.7	38.3
Percent Hawaiian	9.7	13.1
Percent Two or More Races	28.4	29.7
Median Age (Years)	38.6	38.6
Percent Under 18 Years	26.1	24.7
Percent Over 65 Years	13.5	16.7
Percent Households with Children	21.3	36.1
Average Household Size	2.75	2.7
Median Family Income	\$39,805	\$35,506
Percentage of Population Below 100% of Federal Poverty Level	15.7	11.7
Percent Housing Vacant	15.5	9.0

Source: U.S. Bureau of the Census. May 2001. *Profiles of General Demographic Characteristics, 2000 Census of Population and Housing, Hawai'i*. (U.S. Census Bureau Web Page).

Impacts

The proposed action would facilitate additional development of the property in conformance with its designated industrial zoning and provide some level of benefit through enhancement of economic and cultural opportunities for native Hawaiians. As with the rest of the County, poverty is highest among Native Hawaiians – almost double that of Caucasians. As discussed in Section 1.2, the rate of unemployment and poverty is higher for those of Hawaiian or part-Hawaiian ancestry compared with the general population.

3.2.2 Archaeological and Cultural Resources

Existing Environment

The studies carried out for the project included a Cultural Impact Assessment by Cultural Surveys Hawai'i, Inc., and a Request for SHPO Concurrence with a Determination of No Historic Properties Affected by Rechtman Consulting, LLC. They are included in Appendices 2 and 3, respectively, and are summarized below.

The project site is located on Department of Hawaiian Home Lands property in Pana'ewa in the *ahupua'a* of Waiakea, in the district of South Hilo. Waiakea literally means broad waters (Pukui et al. 1974:221), but is also a type of taro (*kalo*) grown in Kona on the leeward side of Hawai'i Island (Pukui & Elbert 1986:377). Waiakea, with its rich natural resources of the forests and the sea, has long been a center of habitation for Hawaiians and is often mentioned in Hawaiian folklore and legends. According to many legends, Waiakea was also associated with the Hawaiian royalty (*ali'i*).

The earliest historical knowledge of Hilo comes from legends written by Kamakau (1961) of a 16th century chief 'Umi-a-Liloa (son of Liloa) who at that time ruled the entire island of Hawai'i. Descendants of Umi and his sister-wife were referred to as "Kona" chiefs, controlling Ka'ū, Kona, and Kohala, while descendants of Umi and his Maui wife were "Hilo" chiefs, controlling Hamakua, Hilo, and Puna (Kelly et al. 1981). According to Kamakau (1961), both sides fought over control of the island, desiring access to resources such as feathers, *mamaki tapa*, and canoes on the Hilo side, and *wauke tapa*, and warm lands and waters on the Kona side (c.f. Kelly et al. 1981). Waiakea was also described as a relatively early residence of Hawaiian royalty (*ali'i*). Hilo's Kanoa Heiau, where human sacrifices were offered, was also mentioned in the legend, indicating its early existence (Kelly, Nakamura and Barrère 1981:1).

Legends also tell of the abundant fish and shrimp of Waiakea, which was highly sought by Kamehameha I. Fornander's work describes Kamehameha I sending his fastest runners, Makoa and Kāneaka'ehu, from Kawaihae and Kailua to "Hilo to get mullet from the pond of Waiakea, on the boundary adjoining Puna" (1916-1919:490-491). Westervelt's story "Keaunini" tells of the abundant mullet of Lolakea and Waiakea: "The people feasted on the mullet of Lolakea and the baked dogs of Hilo and the humpbacked mullet of Waiakea and all the sweet things of Hawai'i" (1915:191).

Sometime near the end of the 16th century or early in the 17th century, the lands of Hilo were divided into *ahupua'a* that today retain their original names (Kelly et al. 1981). These include the *ahupua'a* of Pu'u'eo, Pi'ihonua, Punahoa, Ponoahawai, Kūkūau and Waiakea. The design of these land divisions was that residents could have access to all that they needed to live, with ocean resources at the coast, and agricultural and forest resources in the interior. However, only Pi'ihonua and Waiakea provided access to the full range of resources stretching from the sea up to 6,000 feet along the slopes of Mauna Kea (Kelly et al. 1981).

Historical accounts (McEldowney 1979) place the current study area in the Upland Agricultural zone, which is defined as ranging from 50 to 1,500 feet in elevation. The zone was described by early visitors to Hilo Bay as “open parkland gently sloping to the base of the woods ... an expanse broken by widely spaced cottages, neatly tended gardens, and small clusters of trees.” Over time, the upland agricultural zone was converted from forest to “open parkland” where plantings occurred on soil-mantled lava flows. Habitation for most part was probably temporary with a few scattered permanent occupation complexes (1979).

Isabella Bird described her impression upon arriving in Hilo in 1873:

Above Hilo, broad lands sweeping up cloudwards, with their sugar cane, kalo, melons, pineapples, and banana groves suggest the boundless liberality of Nature. (Bird 1964:38)

Handy and Handy (1972) also describe the general region as an agricultural area:

On the lava strewn plain of Waiakea and on the slopes between Waiakea and Wailuku River, dry taro was formerly planted wherever there was enough soil. There were forest plantations in Pana‘ewa and in all the lower fern-forest zone above Hilo town along the course of the Wailuku River. (Handy and Handy 1972:539)

Maly (1996) refers to a 1922 article from the Hawaiian Language newspaper, *Ka Nupepa Kū‘oku‘a*, where planting on pahoehoe lava flats is described:

There are *pahoehoe* lava beds walled in by the ancestors in which sweet potatoes and sugar cane were planted and they are still growing today. Not only one or two but several times forty (*mau ka‘au*) of them. The house sites are still there, not one or two but several times four hundred in the woods of the Pana‘ewa. Our indigenous bananas are growing wild, these were planted by the hands of our ancestors. (Maly 1996:A-2)

Hilo was one of the larger population centers on the Island of Hawai‘i, and as previously described, also an area frequented by the ali‘i (Moniz n.d.). Captain George Vancouver, an early European explorer who met with Kamehameha I at Waiakea in 1794, recorded that Kamehameha was there preparing for his invasion of the neighbor islands, and that Hilo was an important center because his canoes were being built there (Moniz n.d.:7). The people of Hilo had long prepared for Kamehameha’s arrival and collected a large number of hogs and a variety of plant foods, to feed the ruler and his retinue. Kelly et al. (1981) surmises that the people of Hilo had actually prepared for a year prior to Kamehameha’s visit and expanded their fields into the open lands behind Hilo to accommodate the increased number of people that would be present. Kelly et al. (1981) also speculates that many of the fish ponds in Waiakea were created to feed

Kamehameha, his chiefs, and craftsmen. It was during this early Historic Period that Waiakea Ahupua‘a became part of Kamehameha I’s personal land holdings (Moniz n.d.:11).

William Ellis, one of the first missionaries to arrive in Hawai‘i, spent five days in Waiakea in 1823 (Ellis 1963). He described it as a well-watered place, with some of the heaviest rains and densest fog he had encountered on the island. He considered the inhabitants lucky because of the well-stocked fishponds, fertile soil, and nearby woods as a source of lumber. Ellis (1963) estimated that nearly 400 houses were present near the bay, with a population of not less than 2,000 inhabitants. Ellis eventually set up a mission station in Waiakea that lasted until 1825 before moving to Punahoa 2nd Ahupua‘a (Moniz n.d.).

As a result of the Mahele in 1848, nearly all of the *ahupua‘a* of Waiakea became Crown Lands (for the occupant of the throne). According to Moniz (n.d.:12) twenty-six *kuleana* claims (LCAw.) were registered for lands in Waiakea; most of these lands were centered along fishponds or major inland roads, and none were in the immediate vicinity of the current study area. Most of the awards were for houselots and cultivated sections. One of the Land Commission Awards (LCAw. 7713) was for the ‘*ili* of Pi‘opi‘o, which was traditionally the residence of chiefs, and which later served as the location of the original mission station in Waiakea (Moniz n.d.:9). This land was given by Kamehameha I to his wife Ka‘ahumanu, and then awarded to Victoria Kamalumuana during the Mahele. Kamehameha IV, Alexander Liholiho, as the occupant of the throne during the Mahele, received the rest of the *ahupua‘a*.

Twenty-six (26) Land Commission Awards (LCAs) were granted within Waiakea, nearly all of which were within the coastal zone. None of these LCAs are within the present study area, although two (2663 and 2402) which were in the lower portion at roughly the same elevation as the subject parcel. The LCAs or *kuleana*(s) were for the most part focused around the edges of the large fishponds of Waiakea. Land use information of the *kuleana* generally refer to cultivated fields with house lots indicating habitation and agricultural production within the same zone, unlike leeward Hawai‘i Island where in many cases *kuleana* included coastal house lots with associated upland agricultural lots, because of elevation dependent rainfall.

Following the Mahele, Kamehameha IV leased large portions of Waiakea to outside interests for pasture and sugarcane cultivation (Moniz n.d.). In 1861 S. Kipi leased the Crown Lands of Waiakea for the rate of \$600 dollars a year to be used as pasture land for five years (Kelly et al. 1981; Maly 1996). In 1874 the first lease for sugarcane cultivation in Waiakea was granted to Rufus A. Lyman for a term of 25 years. The lease granted him all the privileges of the land including the use of the fishponds and the cutting of firewood (Maly 1996). This lease was eventually transferred to the Waiakea Mill Company, founded by Alexander Young and Theo H. Davis, and the Waiakea sugar plantation was established. Established in 1879, the Waiakea Mill Company started with

about 350 acres of cultivated lands they had acquired from Lyman. In 1888 the company acquired a 30-year lease that increased their land holdings in Waiakea Ahupua'a. When the lease ran out in 1918 the acreage under cultivation had increased to nearly 7,000; but without a lease the ahupua'a fell under the homesteading laws, which required the government to lease the land to individual growers. Waiakea Mill Company was expected to grind the crop for the independent growers under a contract that gave the company 40 percent of the proceeds from the sale of the refined sugar. Contractual and legal problems combined with a declining sugar market and the devastating tsunami of 1946 led the Waiakea Mill Company to cease operation in 1947. During the 68 years of its operation, the Waiakea Mill Company was a major force in shaping the economic and social growth of Hilo, and certainly left its mark on both the cultural and physical landscapes of the area, although the subject area does not appear to have been used for sugar cultivation or processing.

The current project area appears to have remained undeveloped until 1994 when the Pana'ewa Hawaiian Home Lands Community Association obtained a 30-year license from DHHL to develop a community center. In 1998, the Pana'ewa Hawaiian Home Lands Community Association and Ha'ola, Inc. received a grant from DLNR to undertake a forest stewardship project on the property. As part of that project, roadways were bulldozed, walking trails were created, alien vegetation was removed and native vegetation reintroduced. With the exception of a current squatter living in a makeshift residence in the south central portion of the parcel, no further activity has taken place on the property since that time.

The study by Robert B. Rechtman, Ph.D., of Rechtman Consulting (Appendix 2) included an intensive pedestrian survey of the entire Tax Map Parcel (12.77 acres) carried out on December 16, 2008 as detailed in the assessment (RC-0607, January 2009). The assessment found physical evidence of the forest stewardship efforts by one of the current applicants, Ha'ola Inc., i.e. graded roadways and prepared foot trails, but no archaeological resources were observed. The assessment determined that given the nature of the substrate, it is highly unlikely that any such resources are present in a subsurface context.

In the course of preparing the CIA, Auli'i Mitchell, B.A., and Hallett H. Hammatt, Ph.D., of Cultural Surveys Hawai'i contacted Hawaiian organizations and individuals regarding possible cultural resources and practices in the project area. No resources or practices of a potential traditional cultural nature (i.e., landform, vegetation, etc.) were identified or appear to be present on or near the project site, and there is no evidence of any ongoing traditional gathering uses or other cultural practices.

Impacts and Mitigation Measures

The State Historic Preservation Officer (SHPO) was contacted by letter on February 13, 2009 by Rechtman Consulting, acting as an agent of the Hawai'i Department of Hawaiian Home Lands (DHHL) in the Section 106 consultation, and asked for concurrence with the

finding of no effect to historic properties. In a letter of February 25, 2009 (see Appendix 1a), SHPD concurred with this determination.

As no resources or practices of a potential traditional cultural nature appear to be present on or near the project site, other than former forest stewardship activities by one of the organizations that is the applicant for the current action, the proposed construction and operation of the cultural facility would not appear to impact any culturally valued resources or cultural practices. In particular, the exercise of native Hawaiian rights related to gathering, access or other customary activities will not be affected, and there will be no adverse effect upon cultural practices or beliefs. This Draft EA has been distributed to agencies and groups who might have knowledge in order to confirm this finding. It should be noted that the project would facilitate current cultural uses of the property through establishment of social, economic, health and cultural programs and activities to increase the well-being of Native Hawaiian youth and adults living in Pana‘ewa Hawaiian Home Lands and the adjacent Hilo community.

In the unlikely event that archaeological resources are encountered during future development activities within the current study area, work in the immediate area of the discovery should be halted and DLNR-SHPD contacted as outlined in Hawai‘i Administrative Rules 13§13-275-12.

3.3 Infrastructure

3.3.1 Utilities

Existing Facilities and Services

Electrical power to the project site is provided by Hawai‘i Electric Light Company (HELCO), a privately owned utility company regulated by the State Public Utilities Commission, via their island-wide distribution network. Telephone service to Hawaiian Home Lands properties is provided by Sandwich Isles Communications, Inc.

According to a letter from the Hawai‘i County Department of Water Supply (DWS) dated December 19, 2008 (see Appendix 1a), water is supplied to the area by DWS via a 12-inch waterline within Railroad Avenue, an existing 18-in waterline within Puainako Street, and an existing 8-inch water main on ‘Ohu‘ohu Street. There is an existing 5/8-inch meter serving the subject parcel on ‘Ohu‘ohu Street.

The project site is not in the vicinity, and is not accessible to the public sewer. According to a letter from the Hawai‘i County Department of Environmental Management, Wastewater Division, dated December 12, 2008 (see Appendix 1a), the project site is approximately 1,050 feet from the closest sewer main, which is located at the intersection of ‘Ohu‘ohu and Maka‘ala Streets. The property is within the Critical Wastewater Disposal Area established under Chapter 11-62, Hawai‘i Administrative Rules.

Impacts and Mitigation Measures

The proposed action would not have any substantial impact on existing electrical or telephone facilities. Appropriate coordination with HELCO and Sandwich Isles Communication will be conducted during the design and construction of the improvements (see undated email from Sandwich Isles Communications in Appendix 1a).

There appears to be adequate potable water to service the proposed facility. DWS will require estimated maximum daily water usage calculations prepared by a professional engineer prior to providing a water service, along with various other design features meeting with DWS rules and policies. The waterlines fronting the property have sufficient capacity to provide the required 2,000 gallons per minute fire flow.

As the property is not located within 300 feet of the County sewer system, an extension of the public sewer is not required. However, the project proponents are exploring funding for a possible 1,050-foot sewer line extension. The extension would be entirely within the existing disturbed County right-of-way on 'Ohu'ohu Street, which has been inspected as part of this EA, and no direct or indirect adverse environmental impacts would occur. The County wastewater treatment plan is expected to have more than sufficient capacity to treat the small amount of wastewater expected from the project and any other community project on the Kamoleao parcel. As funding for such an extension is uncertain, an individual wastewater system capable of handling projected flows not exceeding 1,000 gallons per day is currently planned. This system will be designed to meet all requirements of the State Department of Health. In the future, should the property become accessible to the County sewer system, the project will connect to the County sewer in accordance with Hawaii County Code Section 21-5. A grease interceptor may be required to be installed for the commercial kitchen prior to connecting to the public sewer.

Solid waste will be dealt with through aggressive recycling, with the remainder hauled to the South Hilo Sanitary Landfill. A Solid Waste Management Plan will be developed as part of Plan Approval.

In summary, the utility infrastructure for the facility is adequate and no adverse impacts are expected.

3.3.2 Traffic, Parking and Police/Fire/Emergency Services

The project site is bordered by 'Ohu'ohu Street, a two-lane, two-way County local road that extends six blocks from East Maka'ala Street to East Kahaopea Street and East Puainako Street. A driveway off 'Ohu'ohu Street will provide access to the project site. Paved and unpaved parking areas including handicap-accessible space(s) will be provided.

The Proposed Action will slightly increase traffic along ‘Oahu Street as described above and along East Puainako and East Maka‘ala Streets. Traffic at the facility will be moderate, particularly during peak adjacent street hours, and mostly associated with staff and occasional visits by participants in programs at the facility. However, given the nature of the project and its operation, the overall traffic impact is projected to be minimal.

In a letter dated December 11, 2009, (see Appendix 1a), the Hawai‘i County Police Department expressed the view that the proposed project could significantly impact traffic levels on both ‘Oahu Street and Puainako Street, which would negatively impact traffic safety at an intersection that in their assessment is already hazardous. They recommended installation of a traffic control system (presumably a traffic signal).

According to observations from Donnalyn Kalei, Avis Yoshioka and other Pana‘ewa residents familiar with the area, peak hours on ‘Oahu Street between Puainako and Maka‘ala Streets are 7 to 8 AM and 4 to 5 PM, although traffic in the afternoon lasts from 3:30 to 5:30 PM. Although some AM and PM peak hour congestion occurs at the STOP sign on ‘Oahu Street and Puainako Street, and further away at Maka‘ala Street, traffic on ‘Oahu Street between Puainako Street and Maka‘ala Street is generally light.

Traffic associated with the Proposed Action will be derived from use of the facility programs as outlined in Section 1.1, above. In summary:

- Community members using the community gardens, commercial kitchen, or classroom facilities. The maximum number of community members using the facility at one time is projected at 40 people, 20 on weekdays. Approximately half of these persons would be expected to live in close proximity to the facility and would walk or carpool to the facility.
- Customers of the future Open Market. The maximum number of customers expected during open market hours is projected at 20 persons. Approximately half of these persons would be expected to live in close proximity to the facility and would walk or carpool to the facility.

Thus the total worst-case traffic impact at peak hours would be twenty one-way AM peak hour passenger vehicle trips. This level of traffic is minimal, and considering the basically good traffic conditions at the ‘Oahu Street and East Puainako Street intersection, well within the capacity of the existing roads. Given the minor traffic characteristics of the project, along with the fact that the affected roadways were designed with the intention that the lots would be occupied by industrial uses, DHHL has determined that a TIAR is not necessary at this time.

Parking will consist of a minimum of 9 stalls, including one handicap-accessible space in accordance with Hawai‘i County Code Section 25-4. An overflow paved parking area will also be built at the back side of the property.

Fire, police and emergency management services are readily available in this part of Hilo. A police station is located on Kapiolani Street approximately three miles away and several fire stations are located within three miles. EMT services are provided by the Hawai'i County Fire Department. Acute care services are available at Hilo Medical Center, approximately four miles from the project site.

3.4 Secondary and Cumulative Impacts

Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures. The adverse effects of the project – very minor and temporary disturbance to air quality, noise, visual and traffic congestion quality during construction – are quite limited in severity, nature and geographic scale. No cumulative impacts are foreseen from the project at this time.. There are several proposed projects near the project site, including a proposed Target store and Safeway store on East Maka'ala Street. However, the new Safeway Store would replace one presently across 'Ohu'ohu Street adjacent to the Prince Kuhio Plaza which is currently a prime source of traffic on that street, with the net effect of moving a portion of the traffic further north. At some point, larger developments in this area will be required by the County and/or State to assess cumulative traffic impacts and implement traffic facility upgrades as warranted.

Another important consideration is the future implementation of the other elements of the Kamoleao Master Plan. There is no certain timetable and future development will involve environmental documentation at the appropriate time that takes into account cumulative impacts. However, the full scope of the plan can be considered on at least a conceptual level.

The current plan, done for Ha'ola Inc. by PBR Hawaii, dates from 2005 (Figure 5). Though it is currently in the process of being updated, the basic elements are likely to remain similar. These consist of:

- Pana'ewa Community Center
- Kamoleao Health Care Center
- Day Care
- Na Kupuna Program
- Kamoleao Community Services Center
- Kamoleao Educational Research Center
- Maintenance Shop
- 'Ohu'ohu Marketplace
- Kamoleao Agricultural Services Center
- Halau Hula
- Kamoleao Guest Lodging
- Amphitheater
- Meeting Hale

Figure 5 2005 Kamoaleao Master Plan



Source: PBR Hawaii 2005 (modified for legibility)

According to PBR Hawaii (2005: 6) “The overall desired architectural theme for Kamoleao is one of “Modern Hawaiian” architecture, using Kulana ‘Oiwī and the Kamehameha Schools Kea’au campus as examples. General characteristics include broad, tall roof and ceiling lines, columns and walls adorned with stone work, low fishpond walls serving as dividers and casual seating, as well as skylights for natural light. Due to the climate in Hilo, covered walkways connecting all major buildings are also desired. Native plants will also be incorporated throughout the landscape.” The ambitious project involves over 80,000 square feet of building space.

The current project, although not specifically called out as such on the Kamoleao Master Plan, provide some of the services it specifies in the form of a commercial kitchen, classroom and associated facilities, and garden.

The Kamoleao Master Plan will be implemented over the course of the next few decades as funds permit, and will probably continue to be modified. Impacts of the project will largely be beneficial and will complement those of the current project. Potential adverse effects include the burden of traffic upon local roads and the demands for water and sewer service. Although the precise impacts and the measures that will be necessary to mitigate them will need to be calculated as elements of the plan are added and studied in relation to conditions and infrastructure at the time, the proposed project will not exacerbate the impacts of the entire Kamoleao Master Plan, because it is essentially a part of it.

3.5 Required Permits and Approvals

The following permits and approvals would be required:

- Hawai‘i County Building Division Approval and Building Permit
- Hawai‘i County Planning Department Plan Approval
- Hawai‘i County Public Works Department Grading Permit

3.6 Consistency with Government Plans and Policies

3.6.1 Hawai‘i State Plan

Adopted in 1978 and last revised in 1991 (Hawai‘i Revised Statutes, Chapter 226, as amended), the Plan establishes a set of themes, goals, objectives and policies that are meant to guide the State’s long-run growth and development activities. The three themes that express the basic purpose of the *Hawai‘i State Plan* are individual and family self-sufficiency, social and economic mobility and community or social well-being. The proposed Kamoleao Laulima Community Resource Center would provide services beneficial to the social well being of the Native Hawaiian segment of the East Hawai‘i community and the project is consistent in every sense with the plan.

3.6.2 Hawai'i County Zoning and General Plan

The *Hawai'i County General Plan Land Use Pattern Allocation Guide (LUPAG)*. The LUPAG map component of the *General Plan* is a graphic representation of the Plan's goals, policies, and standards as well as of the physical relationship between land uses. It also establishes the basic urban and non-urban form for areas within the planned public and cultural facilities, public utilities and safety features, and transportation corridors. The project site is classified as High Density Urban in the LUPAG, which is characterized as general commercial, multiple-family residential (up to 87 units per acre) and related services. The proposed project is consistent with this designation, which is intended for residential use, with ancillary community and public uses, and neighborhood and convenience-type commercial uses.

Hawai'i County Zoning and SMA. The County zoning designation for the project site is currently Limited Industrial (ML-20) (minimum lot size 20,000 sf), where minor agriculture products processing, food manufacturing and processing facilities and public uses and structures are permitted uses under Section 25-4-140 of the County's zoning code. Plan approval by the Hawai'i County Planning Department will be required. The property is not situated within the County's Special Management Area (SMA). Based on future uses in the remainder of the Kamoleao property, it is recommended that DHHL consider changing the zoning designation to CG 20 (General Commercial, minimum lot size 20,000 sf), which would allow additional uses such community buildings, certified kitchen, retail uses, farmers' market, charter schools, and other uses. This designation would be consistent with the GP and match neighboring zoning also.

The *General Plan* for the County of Hawai'i is a policy document expressing the broad goals and policies for the long-range development of the Island of Hawai'i. The plan was adopted by ordinance in 1989 and revised in 2005 (Hawai'i County Planning Department). The *General Plan* itself is organized into thirteen elements, with policies, objectives, standards, and principles for each. There are also discussions of the specific applicability of each element to the nine judicial districts comprising the County of Hawai'i. Most relevant to the proposed project are the following Goals and Policies:

ECONOMIC – GOALS

- Provide residents with opportunities to improve their quality of life through economic development that enhances the County's natural and social environments.
- Economic development and improvement shall be in balance with the physical social and cultural environments of the island of Hawaii.
- Strive for diversity and stability in the economic system.
- Provide an economic environment that allows new, expanded or improved economic opportunities that are compatible with the County's cultural, natural and social environment.

- Strive for an economic climate that provides its residents an opportunity for choice of occupation.
- Promote and develop the island of Hawai‘i into a unique scientific and cultural model, where economic gains are in balance with social and physical amenities. Development should be reviewed on the basis of total impact on the benefits of the County, not only in terms of immediate short run economic benefits.

ECONOMIC – POLICIES

- Assist in the expansion of the agricultural industry through the protection of important agricultural lands, development of marketing plans and programs, capital improvements and continued cooperation with appropriate State and Federal agencies.
- Encourage the expansion of the research and development industry by working with and supporting the University of Hawai‘i at Hilo and other agencies’ programs (Hawai‘i Community College) that support sustainable economic development in the County of Hawai‘i.
- Support all levels of educational, employment and training opportunities and institutions.
- The land, water, air, sea and people shall be considered as essential resources for present and future generations and should be protected and enhanced through the use of economic incentives.
- Identify and encourage primary industries that are consistent with the social, physical and economic goals of the residents of the County.
- Assist in the promotion of the agriculture industry whose products are recognized as being produced on the island of Hawai‘i.
- Encourage the establishment of open farmers markets to allow local agricultural producers to market their products.
- Assist in cooperative marketing and distribution endeavors to expand opportunities for local agriculture products for export as well as to the local market.

The project is highly consistent with these goals and policies.

3.6.3 Hawai‘i State Land Use Law

All land in the State of Hawai‘i is classified into one of four land use categories – Urban, Rural, Agricultural, or Conservation – by the State Land Use Commission, pursuant to Chapter 205, HRS. The property is in the State Land Use Urban District. The planned use conforms with this State Land Use District designation.

3.6.4 Department of Hawaiian Home Lands Strategic Plans

The DHHL Strategic Plan Mission Statement is “To manage the Hawaiian Home Lands trust effectively and to develop and deliver lands to Native Hawaiian. We will partner with others towards self-sufficiency and healthy communities” <http://hawaii.gov/dhhl/publications/strategic-plan/Strategic%20Plan%202007-2011.pdf>. Relevant objectives and goals include the following:

- Goal 2: “Provide beneficiaries with the necessary tools for long-term homeowner sustainability by supporting capacity building programs to assist in strengthening homestead communities.”
- Objective 2: “Support capacity building programs to assist homesteaders to effectively govern the affairs within their respective communities.”

The KLCRC project is highly consistent with the basic mission of the DHHL Strategic Plan’s Mission. The KLCRC project builds capacity and partnerships between DHHL, the Pana’ewa Hawaiian Homelands Community Association (PHHLCA), Haola Inc, Hawaii Community College other community resources, which will increase self-sufficiency and a healthier Pana’ewa community. The KLCRC project is also very consistent with Goal 2, Objective 2 of the DHHL Strategic Plan. PHHLCA is active in governing its own affairs and building capacity with community resources. Partnerships with Ha’ola Inc, Hawai’i Community College and other community resources for the KLCRC project offer beneficiaries opportunities for socioeconomic advancement through education programs that promote Hawaiian culture, microenterprise business development, financial literacy, food service, agriculture, leadership, environment stewardship, skill-building, and creates pathways between the Pana’ewa Community and vocational programs at Hawai’i Community College.

The *Pana’ewa Regional Plan* was approved by Hawaiian Homes Commission on March 24, 2009. <http://hawaii.gov/dhhl/publications/regional-plans/hawai-i-regional-plans/Draft-Panaewa-Regional-Plan.pdf/?searchterm=Regional>). As discussed in this plan (pp. 25-33), the KLCRC project represents some first steps in the development of Kamoleao and is identified as “Priority No. 2” in the Pana’ewa Regional Plan’s top five community priorities:

“Beginning on February 20, 2008, the Department of Hawaiian Home Lands (DHHL) held five (5) Pana’ewa Regional Plan focus group meetings with Pana’ewa homestead leaders and other stakeholders in the region. The first objective of these meetings was to identify and inventory Pana’ewa community’s needs, opportunities, concerns and issues impacting the community.... A voting ballot was prepared and distributed at the August 4, 2008 beneficiary community meeting. The community voted on the top five priority projects from the list of fifteen potential projects. Based on a total of 59 votes, the five highest ranking projects were:

1. Complete the Restoration of the Pana'ewa Family Center.
2. Reassess Kamoleao to Expedite Its Development [the proposed project].
3. Establish a Working Group to Assess How to Improve Farming at Pana'ewa.
4. Develop DHHL Pana'ewa Industrial Lands to Generate Income.
5. Improve Pana'ewa Road Infrastructure.

PART 4: DETERMINATION

Based on information to this point, the State of Hawai'i Department of Hawaiian Home Lands, acting as staff for the Hawaiian Homes Commission, has preliminarily determined that the project will not significantly alter the environment, as impacts will be minimal, and that an Environmental Impact Statement is not warranted. The Hawaiian Homes Commission is thus expected to issue a Finding of No Significant Impact (FONSI). Comments on the Draft EA will be reviewed in order to ascertain whether this anticipated determination is appropriate.

PART 5: FINDINGS AND REASONS

Chapter 11-200-12, Hawai'i Administrative Rules, outlines those factors agencies must consider when determining whether an Action has significant effects:

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resources would be committed or lost.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* No restriction of beneficial uses would occur.
3. *The proposed project will not conflict with the State's long-term environmental policies.* The State's long-term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The project is minor and fulfills aspects of these policies calling for an improved social and economic environment. It is thus consistent with the State's long-term environmental policies.
4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The project would not have any adverse effect on the economic or social welfare of the County or State, and would benefit the social and economic welfare of Hilo.
5. *The proposed project does not substantially affect public health in any detrimental way.* The proposed project would not be detrimental to public health in any way, and would allow several non-profit organizations to improve the quality of services they provide.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities.* No secondary effects are expected to result from the proposed action.

7. *The proposed project will not involve a substantial degradation of environmental quality.* The project is minor and environmentally benign, and would thus not contribute to environmental degradation.
8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* The project site supports primarily alien weedy vegetation. Impacts to rare, threatened or endangered species of flora or fauna will not occur.
9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The project is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions.
10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* No adverse effects on these resources would occur. Mitigation of construction-phase impacts will preserve water quality. Ambient noise impacts due to construction will be temporary and restricted to daytime hours.
11. *The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* Although the project is located in an area with volcanic and seismic risk, the entire Island of Hawai‘i shares this risk, and the project is not imprudent to construct, and employs design and construction standards appropriate to the seismic zone.
12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* No scenic vistas and viewplanes will be adversely affected by the project.
13. *The project will not require substantial energy consumption.* The construction and operation of the facility would require minimal consumption of energy. No adverse effects would be expected.

For the reasons above, the proposed action will not have any significant effect in the context of Chapter 343, Hawai‘i Revised Statutes and section 11-200-12 of the State Administrative Rules.

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DRAFT ENVIRONMENTAL ASSESSMENT

**KAMOLEAO LAULIMA COMMUNITY RESOURCE
CENTER, INCUBATOR KITCHEN AND ASSOCIATED
FACILITIES**

TMK (3rd) 2-2-047:075 (por.)
Hilo, Hawai‘i Island, State of Hawai‘i

State of Hawai‘i
Hawaiian Homes Commission

APPENDIX 1a
Comments in Response to Early Consultation



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

HRD08/4093

December 25, 2008

Ron Terry, Principal
Geometrician Associates
P.O. Box 396
Hilo, HI 96721

RE: Early consultation for the Environmental Assessment for the Kamoleao Laulima Community Resource Center incubator kitchen and associated facilities, Hilo, Hawai'i, TMK: (3) 2-2-047:075.

Aloha e Ron Terry,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned letter dated December 3, 2008. Hawai'i Community College (HCC), Pana'ewa Hawaiian Home Lands Community Association and Haola Inc. propose to develop an incubator kitchen project on a 1.5-acre portion of a 12.77-acre property in Pana'ewa, Hawai'i. The project will be funded through the U.S. Housing and Urban Development grant. The project calls for the construction of a 1,800-square-foot building with a commercial kitchen and classroom. OHA has reviewed the project and offers the following comments.

Chapter 343 of the Hawaii Revised Statutes (HRS) requires that the Draft EA include a Cultural Impact Assessment (CIA). The CIA shall include information relating to the traditional and customary practices and beliefs of the area's Native Hawaiians, and the community should be involved in this assessment. Consideration must also be afforded to any individuals accessing the project area for constitutionally protected traditional and customary purposes, in accordance with the Hawai'i State Constitution, Article XII, Section 7.

OHA requests clarification whether an archaeological inventory survey for the project will be submitted to the State Historic Preservation Division for review and approval. If so, OHA

Ron Teryy
December 25, 2008
Page 2

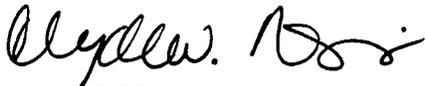
should be allowed the opportunity to comment on the criteria assigned to any cultural or archaeological sites identified within the archaeological inventory survey.

We request the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

In addition, OHA recommends that the applicant use native vegetation in its landscaping plan for subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.

Thank you for the opportunity to comment. If you have further questions, please contact Sterling Wong by phone at (808) 594-0248 or e-mail him at sterlingw@oha.org.

'O wau iho nō me ka 'oia'i'o,



Clyde W. Nāmu'o
Administrator

C: OHA Hilo CRC Office



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAII 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

December 19, 2008

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, HI 96721

**PRE-ENVIRONMENTAL ASSESSMENT CONSULTATION
KAMOLEAO LAULIMA COMMUNITY RESOURCE CENTER INCUBATOR KITCHEN AND
ASSOCIATED FACILITIES
TAX MAP KEY 2-2-047:075**

This is in response to your December 3, 2008, Pre-Environmental Consultation letter.

Water is available from an existing 12-inch waterline within Railroad Avenue, and existing 18-inch waterline within Puainako Street, and an existing 8-inch waterline within Ohuohu Street, both fronting the subject parcel. There is an existing 5/8-inch meter serving the subject parcel, located on Ohuohu Street.

The Department will request estimated maximum daily water usage calculations, prepared by a professional engineer licensed in the State of Hawai'i, showing the water demand of the proposed project. Further, any meter(s) serving the subject parcel shall have a reduced pressure type backflow prevention assembly installed within five (5) feet of the meter on private property before water service can be activated.

Please also be informed that the existing waterlines fronting the parcel are adequate to provide the required 2,000 gallons per minute fire flow, as per the Department's Water System Standards for commercial or industrial land use applications.

Should there be any questions, you may contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

FM:dfg

... Water brings progress...

William P. Kenoi
Mayor



Lawrence K. Mahuna
Police Chief

Harry S. Kubojiri
Deputy Police Chief

County of Hawaii

POLICE DEPARTMENT

349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (808) 961-8865

December 11, 2008

Mr. Ron Terry, Principal
Geometrician Associates
P. O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

**Re: Early Consultation for Environmental Assessment for the Kamoleao
Laulima Community Resource Center Incubator Kitchen and Associated
Facilities; TMK (3) 2-2-047:075; Hilo, Island of Hawaii**

Staff, upon reviewing the provided documents and visiting the proposed site, comments as follows:

The proposed project could significantly impact traffic levels on both Ohuohu Street and Puainako Street. Any significant increases to present traffic levels on Ohuohu Street, Puainako Street and nearby Kanoelehua Avenue may negatively impact traffic safety, potentially leading to an increase in the incidence of traffic casualties on those streets. Of greatest concern is the impact increased traffic levels will have at the intersection of Ohuohu Street and Puainako Street, providing vehicular access to the Prince Kuhio Shopping Plaza. Present traffic levels in this area already make left turn movements to Puainako Street from Ohuohu Street difficult and hazardous.

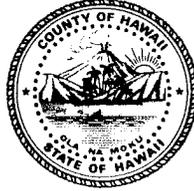
It is our view that installation of a traffic control system or other traffic mitigation measure be considered for this intersection, prior to this project's approval.

Thank you for allowing us this opportunity to comment.

Sincerely,

DEREK D. PACHECO
ASSISTANT POLICE CHIEF
AREA I OPERATIONS BUREAU

William P. Kenoi
Mayor



Bobby Jean Leithead Todd
Director

County of Hawaii
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street • Hilo, Hawai'i 96720-4252
(808) 961-8083 • Fax (808) 961-8086
http://co.hawaii.hi.us/directory/dir_envmng.htm

December 17, 2008

Mr. Ron Terry
Principal
Geometrician Associates, LLC
P O Box 396
Hilo, HI 96721

Subject: Early Consultation for Environmental Assessment
Kamoleao Laulima Community Resource Center Incubator Kitchen and
Associated Facilities
TMK: 2-2-047:075, Hilo, Hawai'i

Dear Mr. Terry,

We offer the following comments:

Solid Waste

A Solid Waste Management Plan will be required.

Wastewater

See enclosed memo.

Thank you for allowing us the opportunity to review and comment on this project.

Sincerely,


Bobby Jean Leithead Todd
DIRECTOR

cc: SWD
WWD

11325A



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT WASTEWATER DIVISION

COUNTY OF HAWAII – 108 RAILROAD AVENUE – HILO, HI 96720
HILO (808) 961-8338 FAX (808) 961-8644

MEMORANDUM

December 12, 2008

To: Bobby Jean Leithead Todd, Director
From: Dora Beck, P.E., Division Chief *DB*
Subject: **Early Consultation for Environmental Assessment
Kamoleao Laulima Community Resource Center Incubator Kitchen and
Associated Facilities, TMK 2-2-047:075, Hilo, Hawai'i**

The County of Hawai'i Department of Environmental Management, Wastewater Division (WWD) has reviewed the above-named document and provides the following comments:

1. The property is located approximately 1050 feet from the closest sewer main located on Makaala Street.
2. The property is located within the Critical Wastewater Disposal Area (CWDA) established under HAR §11-62, Wastewater Systems.
3. The document indicates that the property would be serviced by an Individual Wastewater Treatment system (IWS).
 - Estimated wastewater flows are not provided. However, the project indicates that a commercial kitchen is to be installed to be used for education as well as commercial food production.
 - As per HAR §11-62, Wastewater Systems, the total flow into each IWS shall not exceed 1,000 gpd.
4. In the event that connection to the County sewer system is desired, a sewer study in accordance with the Design Standards of the City and County of Honolulu, Volume 1, July 1993 is required to be performed prior to connection.
 - The sewer study would be required to be performed from Ohu Ohu Street to Leilani Street.
 - Inquires regarding connection additional properties in the area (TMK 2-2-047:072) to the County sewer system have been received and consultants for that development have been advised that a similar sewer study of the area would be required prior to connection to the County sewer.
 - Should the property become accessible to the County sewer system in the future, the property would be required to connect to the County sewer in accordance with Hawai'i County Code Section 21-5 and a Grease Interceptor would be required to be installed for the Commercial Kitchen.

Should there be any comment or question on the above please contact Lyle Hirota, Deputy Division Chief at 808-961-8333 (lhirota@co.hawaii.hi.us).

Ron:

I received your notice of intent to prepare an EA for the subject project. Sandwich Isles Communications, Inc. (SIC) is licensed by the Department of Hawaiian Home Lands to provide telecommunication services to all new projects on lands administered by DHHL. I am responsible for construction activities for SIC and will oversee the telecom service connections into the project. SIC has existing underground conduit and cabling on Puainako and will need to extend our underground system to the projects' property boundary. The project will need to coordinate the design of utility service entrances to meet our infrastructure at the property boundary. When the building is completed SIC will install cabling into the facility and terminate at an agreed upon location. Our typical construction consists of open trenching for laying of new conduit and cabling. Our customer service representative, Warren Bissen, will work directly with of the project owner to establish points of contacts and service requirements. We can coordinate in more detail when the project has progressed to the engineering phase. Please email or call me should you have any questions.

Mahalo,

Rodney Kaulupali
Director of Construction Services
Sandwich Isles Communications, Inc.
1003 Bishop Street, 27th Floor
Honolulu, Hawaii 96813

808-540-5751 Direct

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA H. THELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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

February 25, 2009

Robert B. Rechtman, Ph.D.
Rechtman Consulting, LLC
507-A E. Lanikaula Street
Hilo, Hawaii 96720

LOG NO: 2009.0976
DOC NO: 0902MD45
Archaeology

Dear Dr. Rechtman:

**SUBJECT: National Historic Preservation Act (NHPA) Section 106 Review –
Request for Concurrence for Development of the
Kamoleao Laulima Community Resource Center
Waiakea Ahupua‘a, South Hilo District, Island of Hawai‘i
TMK: (3) 2-2-047:075**

Thank you for the opportunity to review the aforementioned undertaking, which we received on February 18, 2009. We concur that **no historic properties will be affected** by this undertaking because:

- Intensive cultivation has altered the land
- Residential development/urbanization has altered the land
- Previous grubbing/grading has altered the land
- An accepted archaeological inventory survey (AIS) found no historic properties
- SHPD previously reviewed this project and mitigation has been completed
- Other: *We have reviewed the letter report you submitted to us (Rechtman 2008, RC-0607) which documents a pedestrian survey conducted on December 16, 2008 in which no historic properties were found; we concur with this recommendation.*

In the event that historic resources, including human skeletal remains, cultural materials, lava tubes, and lava blisters/bubbles are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, Hawaii Island Section, needs to be contacted immediately at (808) 933-7653.

If you have any questions about this letter, please contact Morgan Davis of our Hawaii Island Section at (808) 933-7650.

Aloha,

Nancy A. McMahon
Deputy State Historic Preservation Officer

DRAFT ENVIRONMENTAL ASSESSMENT

**KAMOLEAO LAULIMA COMMUNITY RESOURCE
CENTER, INCUBATOR KITCHEN AND ASSOCIATED
FACILITIES**

TMK (3rd) 2-2-047:075 (por.)
Hilo, Hawai‘i Island, State of Hawai‘i

State of Hawai‘i
Hawaiian Homes Commission

APPENDIX 2
Archaeological Letter

Request for SHPO Concurrence with a
Determination of No Historic Properties
Affected Pursuant to the National Environmental
Policy Act and in Compliance with Section 106
of the National Historic Preservation Act
Kamoleao Laulima Community Resource Center

(TMK:3-2-2-47:075)

Waiākea Ahupua‘a
South Hilo District
Island of Hawai‘i



PREPARED BY:

Robert B. Rechtman, Ph.D.

PREPARED FOR:

Ron Terry, Ph.D.
Geometrician Associates, LLC
P. O. Box 396
Hilo, HI 96721

January 2009

RECHTMAN CONSULTING, LLC

507-A E. Lanikaula St. Hilo, Hawaii 96720
phone: (808) 969-6066 fax: (808) 443-0065
e-mail: bob@rechtmanconsulting.com
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL STUDIES

Request for SHPO Concurrence with a
Determination of No Historic Properties Affected
Pursuant to the National Environmental Policy Act
and in Compliance with Section 106 of the
National Historic Preservation Act

Kamoleao Laulima Community Resource Center
(TMK:3-2-2-47:075)

Waiākea Ahupua‘a
South Hilo District
Island of Hawai‘i

CONTENTS

INTRODUCTION	1
BACKGROUND STUDIES.....	5
Previous Archaeology.....	5
Culture-Historical Background.....	6
CURRENT PROJECT EXPECTATIONS	9
THE AREA OF POTENTIAL EFFECTS AND THE IDENTIFICATION OF HISTORIC PROPERTIES.....	9
Study Results	9
DETERMINATION OF EFFECTS.....	9
REFERENCES CITED.....	11

FIGURES

1. Project area location.....	2
2. Tax Map Key (TMK):3-2-2-47 showing current study area (Parcel 075).....	3
3. Typical vegetation in the southwestern portion of the project area.....	4
4. Mixed canopy vegetation in the northern portion of the project area.....	4
5. Hilo Bay showing <i>ahupua'a</i>	6
6. Make-shift residence in the south central portion of the project area.....	8
7. Graded roadway near the center of the study area.....	10
8. Rock-lined pathway of late twentieth century origin.....	10

INTRODUCTION

At the request of Ron Terry, Ph.D. of Geometrician Associates, LLC, on behalf of his clients (Hawai'i Community College, Pana'ewa Hawaiian Home Lands Community Association, and Haola Inc.), Rechtman Consulting, LLC conducted an assessment of potential effects to historic properties that might result from the proposed development of the Kamoleao Lualima Community Resource Center on approximately 1.5 acres of a 12.77 acre parcel (TMK:3-2-2-47:075) in Waiākea Ahupua'a, South Hilo District, Island of Hawai'i (Figure 1). Initial funding for this project is being provided by the Alaskan Native/Native Hawaiian Institutions Assisting Communities Grant Program through the Department of Housing and Urban Development (HUD). This project is thus considered a Federal undertaking, and is subject to (among other regulations) the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act. Section 106 provides for coordination of efforts (36 CFR §800.3(b)) with respect to these authorities. However, while it is possible under 36 CFR §800.8 for the NEPA process to subsume (and replace) the Section 106 process, the current study is being prepared in compliance with Section 106 in coordination with NEPA with respect to the consultation and public involvement. As the property is State of Hawai'i land (DHHL), environmental documentation is also being prepared in compliance with Chapter 343 Hawai'i Revised Statutes and the rules of the County of Hawai'i Planning Department, which will include the preparation of separate cultural impact assessment.

For this project, the area of potential effects is the entire Tax Map parcel; which is located within the Pana'ewa section of Hilo town, east of 'Ohu'ohu Street along the northern side of Pū'āinakō Street (Figure 2). The eastern boundary of the parcel is Railroad Avenue and the northern boundary is formed by two developed parcels, one (Parcel 64) containing The Home Depot and the other (Parcel 69) containing a parking lot for the Prince Kuhio Plaza (see Figure 2).

The project area is located approximately 90 feet (27.5 meters) above sea level. The soil in the study area is classified as Papai extremely stony muck (rPAE), a well-drained, thin, extremely stony organic soil formed over fragmented 'a'ā. The permeability of these soils is rapid, runoff moderate, and erosion hazard slight; the Capability Subclass is IV, and the soils of this type are mainly used for pasture and woodland (Sato et al. 1973). These soils have formed over Mauna Loa lava flows that are approximately 750-1,500 years old (Wolfe and Morris 1996). Vegetation in the study area is dense and extremely varied (Figures 3 and 4). A recent survey of vegetation identified 72 alien and 14 indigenous species within a disturbed forest setting (Geometrician Associates, LLC unpublished data). The existing vegetation pattern indicates that portions of the study property have undergone mechanical alteration in the past.

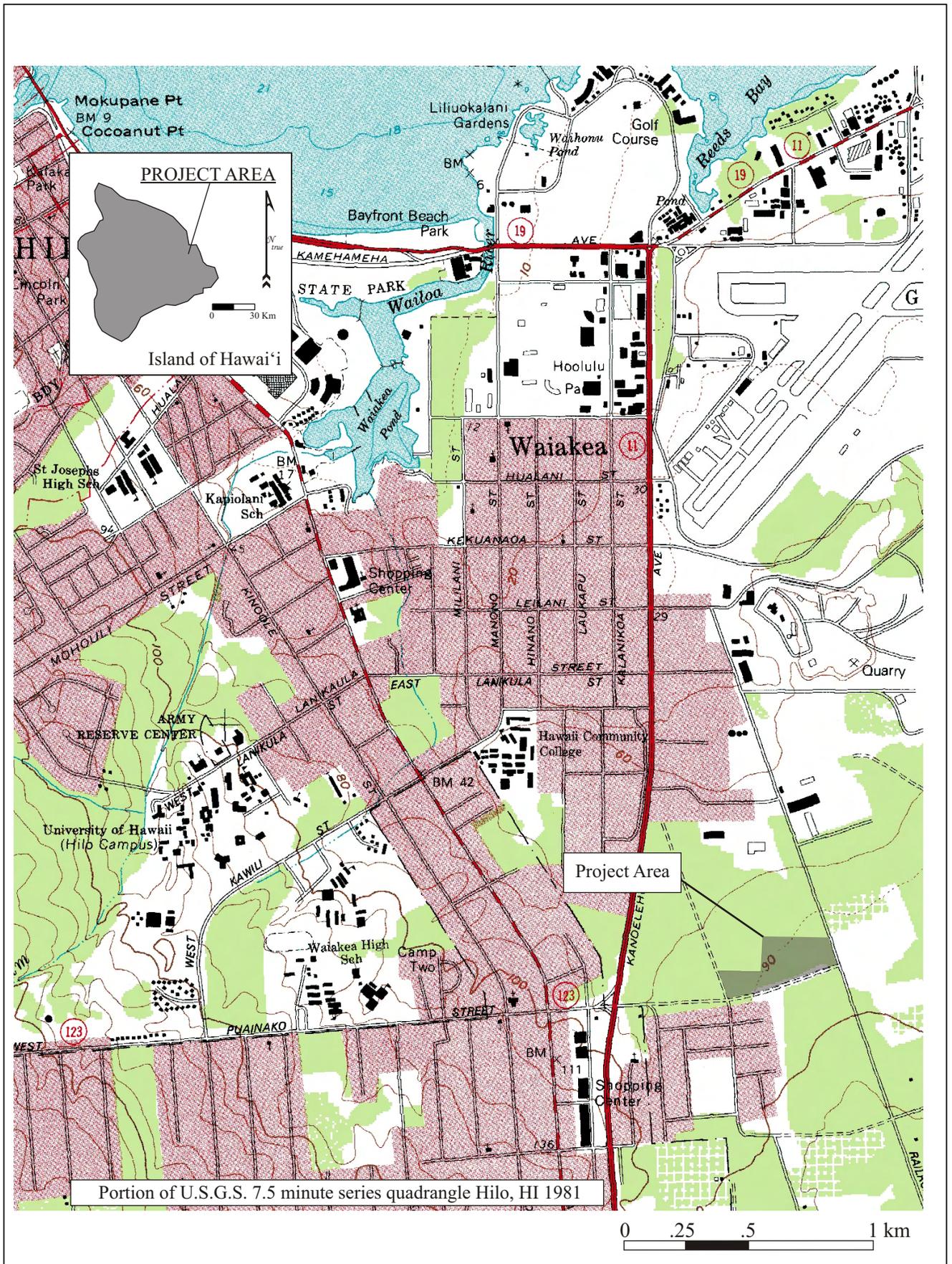


Figure 1. Project area location.

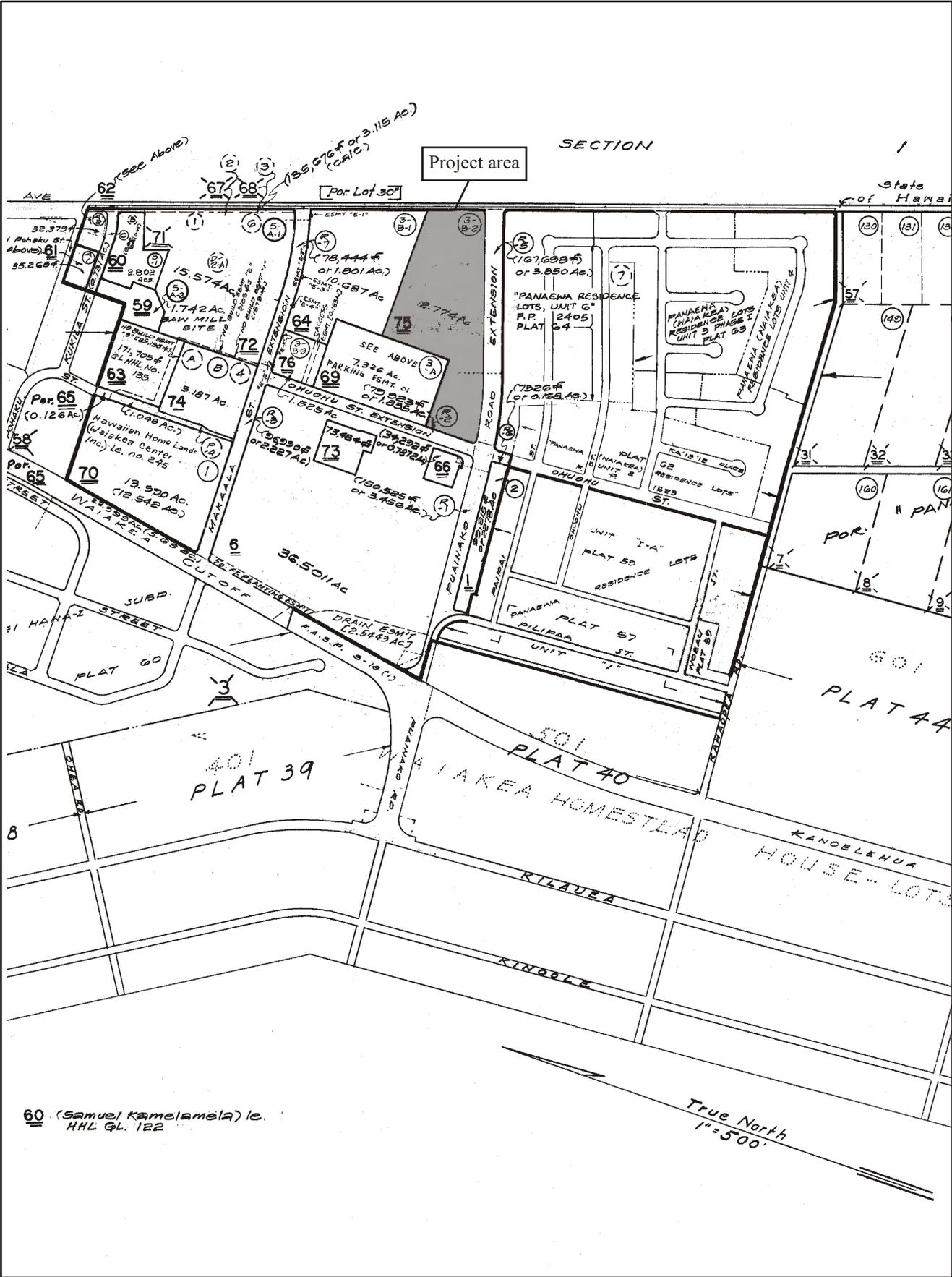


Figure 2. Tax Map Key (TMK) 3-2-2-47 showing project area (parcel 075).



Figure 3. Typical vegetation in the southwestern portion of the project area.



Figure 4. Mixed canopy vegetation in the northern portion of the project area.

BACKGROUND STUDIES

This section of the report describes and synthesizes prior archaeological, cultural, and historical studies that are relevant to the current project area; and provides a brief culture-historical background.

Previous Archaeology

Early archaeological study of East Hawai'i was conducted by Hudson (1932) for the B. P. Bishop Museum. He noted that, "there was an important village and trading center around Hilo Bay" (1932:20), but related that, "no archaeological remains are to be found within the town of Hilo itself except a few stones which are said to have been taken from heiaus..." (1932:226). Hudson relates that one *heiau* was formerly present in Waiākea Ahupua'a near the route of the present Kilauea Avenue, he writes:

There was a heiau named Kapaieie near Honokawilani in Waiākea. Bloxam who passed the site on his way from Hilo to the volcano say that its center was marked by a single coconut tree. At the time of his visit nothing remained but ruined walls choked with weeds. He was told that the priests would lie in wait for passersby and dispatch them with clubs. Thrum [1907:40] states that the site was famed in the Hilo-Puna wars but its size and class are unknown. No remains of any kind could be found and no Hawaiians with whom I talked had ever heard of it. (Hudson 1932:240)

More recent archaeological studies in Waiākea Ahupua'a (Borthwick et al. 1993; Carson 1999, Devereux et al. 1997; Escott 2004; Hunt and McDermott 1993; Maly et al. 1994; Rechtman 2008; Rechtman and Henry 1998; M. Rosendahl 1988a; M. Rosendahl 1988b; M. Rosendahl and Talea 1988; and Spear 1995) have produced negative results or have identified, almost exclusively, historic archaeological remains associated with either U.S. Military activity or the Waiākea Sugar Plantation, which operated in Waiākea Ahupua'a between 1879 and 1947 (Rechtman and Henry 1998). One additional study (Wolforth 2004) addressed possible ancient fishpond sites along the Waiākea shoreline. Each of the aforementioned studies is discussed in detail below.

Hunt and McDermott (1993) conducted an archaeological inventory survey of the then proposed Pū'āinakō Street extension within Waiākea Ahupua'a to the southwest of the current project area. As a result of that survey 11 sites containing 97 features were recorded within the proposed road alignment. All of the recorded sites and features were determined to be historic in origin and associated with the Waiākea Sugar Plantation. Three volcanic glass flakes recovered from an excavation beneath one of the features suggesting Precontact use of the project area, but no surface Precontact remains were present.

Borthwick et al. (1993) conducted an archaeological inventory survey of two small parcels (TMKs:3-2-4-01:040 and 157) located to the northwest of the current project area within Waiākea Ahupua'a. As a result of that survey four sites were recorded that were all of historic origins and related to the use of the area by the Waiākea Sugar Plantation.

Maly et al. (1994) conducted an Archaeological Inventory Survey of a 4.5-acre parcel located to the west of the current project area (TMK:3-2-4-57:001). Four sites containing a total of 51 features were recorded as a result of that study. The identified features included rock mounds, walls, and an enclosure. It was determined that all of the features were associated with historic use of the area for sugarcane cultivation. Nevertheless, further investigation was recommended at the sites to test for the possibility of subsurface Precontact cultural deposits. Subsequent data recovery work was carried out by Spear (1995). No Precontact cultural deposits were located during the data recovery excavations and it was concluded that all of the sites were constructed during Historic times for sugarcane cultivation.

Rechtman and Henry (1998) conducted an archaeological Inventory Survey of roughly 40 acres located within Waiākea Ahupua'a between Kāwili Street and Pū'āinakō Street to the west of the current project area (TMK:3-2-4-01:005). As a result of that survey a single site (SIHP Site 21461) consisting of 117 features was recorded on the subject parcel. The recorded features included seven walls, five sets of parallel walls, three enclosures, and 102 mounds. These features were all related to the historic use of the parcel for sugarcane cultivation. The mounds were all situated on bedrock at the top or bottom edges of slopes and were determined to be clearing piles. The parallel walls represented either irrigation ditches or right-of-ways associated with small gauge railroad lines. While the remaining core-filled walls and the enclosures were used for an undetermined historic function likely related to sugarcane cultivation.

Escott (2004) conducted an Archaeological Inventory Survey of a 258-acre parcel located to the west of the current project area within Waiākea Ahupua‘a (TMK:3-2-4-01:122). As a result of the survey, Escott (2004) recorded nineteen archaeological sites, all of which were interpreted as being historic in age and related either to sugarcane cultivation, ranching, or military activities. The recorded sites included two rock alignments, a rock concentration, a rock mound, six sugarcane fields, an enclosed lava blister, a water catchment, three dirt roads, two World War II era U.S. military fighting positions, the old location of the Fair View Dairy where later military activities took place during World War II, and a old fence line marked by three iron fence posts. The six sugarcane field sites all contained multiple features, nearly all of which were recorded as various shaped clearing mounds.

PHRI conducted three small studies (M. Rosendahl 1988a; 1988b; M. Rosendahl and Talea 1988) in elevationally lower portions of Waiākea and found no archaeological resources. Likewise, a study of 176 acres conducted in the Pana‘ewa section of Waiākea (Carson 1999) to the east, and a 15 acre study area (Rechtman 2008) to the northwest of the current study area both resulted in no archaeological sites identified.

Devereux et al. (1997) performed a reconnaissance survey for the Keaukaha Military Reservation, a 503.6 acre parcel located to the northeast of the current study area south of the Hilo International Airport. In addition to Historic-era military structures, they identified the location of a traditional trail and two associated shelter/habitation areas. It was concluded that these latter sites could be of Precontact origin.

Culture-Historical Background

This section summarizes the general cultural history of Hilo and more specifically the history of Waiākea Ahupua‘a. For a more in-depth historical background the reader is referred to Kelly et al. (1981), Maly (1996a), Maly (1996b), Moniz (n.d.), and McEldowney (1979).

The earliest historical knowledge of Hilo comes from legends written by Kamakau (1961) of a 16th century chief ‘Umi-a-Liloa (son of Liloa) who at that time ruled the entire island of Hawai‘i. Descendants of Umi and his sister-wife were referred to as “Kona” chiefs, controlling Ka‘ū, Kona, and Kohala, while descendants of Umi and his Maui wife were “Hilo” chiefs, controlling Hāmākua, Hilo, and Puna (Kelly et al. 1981). According to Kamakau (1961) both sides fought over control of the island, desiring access to resources such as feathers, *māmaki* tapa, and canoes on the Hilo side; and *wauke* tapa, and warm lands and waters on the Kona side (c.f. Kelly et al. 1981).

Sometime near the end of the 16th century or early in the 17th century, the lands of Hilo were divided into *ahupua‘a* that today retain their original names (Kelly et al. 1981). These include the *ahupua‘a* of Pu‘u‘eo, Pi‘ihonua, Punahoa, Pōnohawai, Kūkūau and Waiākea (Figure 5). The design of these land divisions was that residents could have access to all that they needed to live, with ocean resources at the coast, and agricultural and forest resources in the interior. However, only Pi‘ihonua and Waiākea provided access to the full range of resources stretching from the sea up to 6,000 feet along the slopes of Mauna Kea (Kelly et al. 1981).

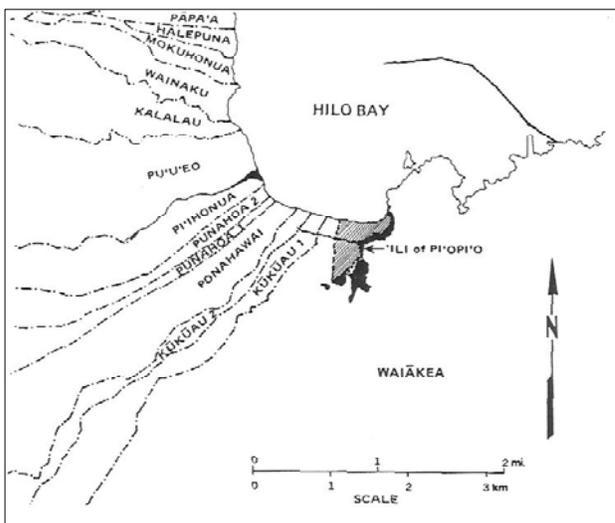


Figure 5. Hilo Bay showing *ahupua‘a* (from Kelly et al. 1981).

Historical accounts (McEldowney 1979) place the current study area in a zone of agricultural productivity. As Isabella Bird recorded upon arriving in Hilo in 1873:

Above Hilo, broad lands sweeping up cloudwards, with their sugar cane, *kalo*, melons, pine-apples, and banana groves suggest the boundless liberality of Nature. (Bird 1964:38)

Handy and Handy (1972) also describe the general region as an agricultural area:

On the lava strewn plain of Waiakea and on the slopes between Waiakea and Wailuku River, dry taro was formerly planted wherever there was enough soil. There were forest plantations in Panaewa and in all the lower fern-forest zone above Hilo town along the course of the Wailuku River. (Handy and Handy 1972:539)

Maly (1996a) refers to a 1922 article from the Hawaiian Language newspaper, *Ka Nupepa Kū'oku'a*, where planting on *pāhoehoe* lava flats is described:

There are *pahoehoe* lava beds walled in by the ancestors in which sweet potatoes and sugar cane were planted and they are still growing today. Not only one or two but several times forty (*mau ka'au*) of them. The house sites are still there, not one or two but several times four hundred in the woods of the Panaewa. Our indigenous bananas are growing wild, these were planted by the hands of our ancestors. (Maly 1996a:A-2)

Hilo was one of the larger population centers on the Island of Hawai'i, and also an area frequented by the *ali'i* (Moniz n.d.). Captain George Vancouver, an early European explorer who met with Kamehameha I at Waiākea in 1794, recorded that Kamehameha was there preparing for his invasion of the neighbor islands, and that Hilo was an important center because his canoes were being built there (Moniz n.d.:7). The people of Hilo had long prepared for Kamehameha's arrival and collected a large number of hogs and a variety of plant foods, to feed the ruler and his retinue. Kelly et al. (1981) surmises that the people of Hilo had actually prepared for a year prior to Kamehameha's visit and expanded their fields into the open lands behind Hilo to accommodate the increased number of people that would be present. Kelly et al. (1981) also speculates that many of the fish ponds in Waiākea were created to feed Kamehameha, his chiefs, and craftsmen. It was during this early Historic Period that Waiākea Ahupua'a became part of Kamehameha I's personal land holdings (Moniz n.d.:11).

William Ellis, one of the first missionaries to arrive in Hawai'i, spent five days in Waiākea in 1823 (Ellis 1963). He described it as a well-watered place, with some of the heaviest rains and densest fog he had encountered on the island. He considered the inhabitants lucky because of the well-stocked fishponds, fertile soil, and nearby woods as a source of lumber. Ellis (1963) estimated that nearly 400 houses were present near the bay, with a population of not less than 2,000 inhabitants. Ellis eventually set up a mission station in Waiākea that lasted until 1825 before moving to Punahoa 2nd Ahupua'a (Moniz n.d.).

As a result of the *Māhele* in 1848, nearly all of the *ahupua'a* of Waiākea became Crown Lands (for the occupant of the throne). According to Moniz (n.d.:12) twenty-six kuleana claims (LCAw.) were registered for lands in Waiākea; most of these lands were centered along fishponds or major inland roads, and none were in the immediate vicinity of the current study area. Most of the awards were for houselots and cultivated sections. One of the Land Commission Awards (LCAw. 7713) was for the 'ili of Pi'opi'o, which was traditionally the residence of chiefs, and which later served as the location of the original mission station in Waiākea (Moniz n.d.:9). This land was given by Kamehameha I to his wife Ka'ahumanu, and then awarded to Victoria Kamalumuāliki during the *Māhele*. Kamehameha IV, Alexander Liholiho, as the occupant of the throne during the *Māhele*, received the rest of the *ahupua'a*.

Following the *Māhele*, Kamehameha IV leased large portions of Waiākea to outside interests for pasture and sugarcane cultivation (Moniz n.d.). In 1861 S. Kipi leased the Crown Lands of Waiākea for the rate of \$600 dollars a year to be used as pasture land for five years (Kelly et al. 1981; Maly 1996a). In 1874 the first lease for sugarcane cultivation in Waiākea was granted to Rufus A. Lyman for a term of 25 years. The lease granted him all the privileges of the land including the use of the fishponds and the cutting of firewood (Maly 1996a). This lease was eventually transferred to the Waiākea Mill Company, founded by Alexander Young and Theo H. Davis, and the Waiākea sugar plantation was established.

Established in 1879, the Waiākea Mill Company started with about 350 acres of cultivated lands they had acquired from Lyman. In 1888 the company acquired a 30-year lease that increased their land holdings in Waiākea Ahupua'a. When the lease ran out in 1918 the acreage under cultivation had increased to nearly 7,000;

but without a lease the *ahupua'a* fell under the homesteading laws, which required the government to lease the land to individual growers. Waiākea Mill Company was expected to grind the crop for the independent growers under a contract that gave the company 40% of the proceeds from the sale of the refined sugar. Contractual and legal problems combined with a declining sugar market and the devastating *tsunami* of 1946 led the Waiākea Mill Company to cease operation in 1947. During the 68 years of its operation, the Waiākea Mill Company was a major force in shaping the economic and social growth of Hilo, and certainly left its mark on both the cultural and physical landscapes of the area.

The current project area appears to have remained undeveloped until 1994 when the Pana'ewa Hawaiian Home Lands Community Association obtained a 30-year license from DHHL to develop a community center. Then, in 1998 the Pana'ewa Hawaiian Home Lands Community Association and Haola, Inc. received a grant from DLNR to undertake a forest stewardship project on the property. As part of that project, roadways were bulldozed, walking trails were created, alien vegetation was removed and native vegetation reintroduced. With the exception of a current squatter living in a make-shift residence (Figure 6) in the south central portion of the parcel, no further activity has taken place on the property since that time.



Figure 6. Make-shift residence in south central portion of the project area.

CURRENT PROJECT EXPECTATIONS

Based on soil substrate and distance from the shoreline (greater than 1 mile), the current project area falls within the Upland Agricultural Zone (Zone II) as defined by McEldowney (1979). The archaeological expectations for this zone include Precontact agricultural features and habitation sites. However, based on the results of prior archaeological studies in the vicinity of the project area, and the specific history of twentieth century land use, the expectations for discovering archaeological features is considered to be low.

THE AREA OF POTENTIAL EFFECTS AND THE IDENTIFICATION OF HISTORIC PROPERTIES

Given the nature of the proposed project, it was determined that an appropriate Area of Potential Effects (APE) would be the entire Tax Map Parcel (12.77 acres). Records on file at the Department of Land and Natural Resources-State Historic Preservation Division indicate that the subject parcel has never been surveyed for historic properties, and given the results of archaeological studies in other portions of Waiākea Ahupua'a (Borthwick et al. 1993; Escott 2004; Hunt and McDermott 1993; Maly et al. 1994; Rechtman 2008; Rechtman and Henry 1998; and Spear 1995) the possibility, although remote, exists that historic properties could be present on the study parcel. With the possibility that the undertaking might affect historic properties, the process of identifying historic properties was initiated pursuant to 36 CFR§800.4 and included an examination of past studies (archaeological, archival, and oral-historical) conducted in the general project area, limited consultation with community members, and an archaeological survey of the entire APE.

Study Results

On December 16, 2008 Robert B. Rechtman, Ph.D., Matthew R. Clark, B.A., Ashton K. Dircks, B.A., with the assistance of Iwikau Joaquin (a student at Hawaii Community College in the Kahu Ku'una program), and Russell Pakani (a Pana'ewa community member), conducted an intensive pedestrian survey of the entire project area. Field surveyors walked east/west transects with a ten meter spacing interval. Physical evidence of the late 1990s land use was observed in the form of graded roadways (Figure 7) and prepared foot trails (Figure 8). There were no archaeological resources observed within the study area and given the nature of the substrate it is highly unlikely that any such resources are present in a subsurface context.

DETERMINATION OF EFFECTS

As no archaeological resources were identified within the APE during the current investigation, our determination is that no historic properties will be affected as a result of the proposed undertaking. These findings, as documented in this report, will be made available to any consulted parties and the public as part of the Environmental Assessment documentation prepared in compliance with the National Environmental Policy Act. It is requested that the Hawai'i SHPO provide concurrence with the no historic properties affected determination within thirty days of receipt of this document as specified in 36 CFR Part 800.4(d)(1)(i).



Figure 7. Graded roadway near the center of the study area.



Figure 8. Rock-lined pathway of late twentieth century origin.

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LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

February 25, 2009

Robert B. Rechtman, Ph.D.
Rechtman Consulting, LLC
507-A E. Lanikaula Street
Hilo, Hawaii 96720

LOG NO: 2009.0976
DOC NO: 0902MD45
Archaeology

Dear Dr. Rechtman:

**SUBJECT: National Historic Preservation Act (NHPA) Section 106 Review –
Request for Concurrence for Development of the
Kamoleao Laulima Community Resource Center
Waiakea Ahupua‘a, South Hilo District, Island of Hawai‘i
TMK: (3) 2-2-047:075**

Thank you for the opportunity to review the aforementioned undertaking, which we received on February 18, 2009. We concur that **no historic properties will be affected** by this undertaking because:

- Intensive cultivation has altered the land
- Residential development/urbanization has altered the land
- Previous grubbing/grading has altered the land
- An accepted archaeological inventory survey (AIS) found no historic properties
- SHPD previously reviewed this project and mitigation has been completed
- Other: *We have reviewed the letter report you submitted to us (Rechtman 2008, RC-0607) which documents a pedestrian survey conducted on December 16, 2008 in which no historic properties were found; we concur with this recommendation.*

In the event that historic resources, including human skeletal remains, cultural materials, lava tubes, and lava blisters/bubbles are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, Hawaii Island Section, needs to be contacted immediately at (808) 933-7653.

If you have any questions about this letter, please contact Morgan Davis of our Hawaii Island Section at (808) 933-7650.

Aloha,

Nancy A. McMahon
Deputy State Historic Preservation Officer

DRAFT ENVIRONMENTAL ASSESSMENT

**KAMOLEAO LAULIMA COMMUNITY RESOURCE
CENTER, INCUBATOR KITCHEN AND ASSOCIATED
FACILITIES**

TMK (3rd) 2-2-047:075 (por.)
Hilo, Hawai‘i Island, State of Hawai‘i

State of Hawai‘i
Hawaiian Homes Commission

APPENDIX 3
Cultural Impact Assessment

**A Cultural Impact Assessment for the Kamoleao Laulima
Community Resource Center, at Panaewa, Hawaiian Home
Lands, Waiākea Ahupua‘a, South Hilo District, Hawai‘i
Island, TMK: [3] 2-2-47:75**

**Prepared for
Hawai‘i Community College at Hilo**

**Prepared by
Aulii Mitchell, B.A.
and
Hallett H. Hammatt, Ph.D.**

**Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i**

March 2009

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Management Summary

Reference	A Cultural Impact Assessment for Kamoleao Laulima Community Resource Center, at Panaewa, (KLCRC) at Panaewa, Hawaiian Home Lands, Waiākea Ahupua`a, South Hilo District, Hawai'i Island, TMK: [3] 2-2-47:75 (Mitchell and Hammatt 2009)
Date	February 2009
Project Number (s)	Cultural Surveys Hawai'i (CSH)
Project Location	Panaewa, Waiākea Ahupua`a, South Hilo on the corners of Ohuohu Street and Puainako Street
Land Jurisdiction	State Department of Hawaiian Homelands, (DHHL) Commission
Project Description	The KLCRC project will consist of the construction of 1,800 square foot building containing two large separate areas/rooms for a commercial kitchen and classroom. Adjacent to the building will be a 1-acre community garden. Community and student volunteers will assist in the construction of the KLCRC building and preparation and cultivation of the garden.
Project Acreage	1.5 acres
Area of Potential Effect (APE) and Survey Acreage	For the purpose of this CIA, the Area of Potential Effect (APE) includes approximately 1.5 acres of the 12.77 acre Kamoleao parcel.
Document Purpose	The project requires compliance with the State of Hawai'i environmental review process [Hawai'i Revised Status (HRS) Chapter 343], which requires consideration of proposed project's effect on cultural practices and resources. CSH is undertaking this CIA at the request of Belt Collins Hawai'i, Ltd. Through document research and (ongoing) cultural consultation efforts, this report provides preliminary information pertinent to the assessment of the proposed project's impacts to cultural practices (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-42 and Hawai'i Administrative Rules Chapter 13-284.
Consultation Effort	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. The organizations consulted included the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), the Hawai'i Island Burial Council (HIBC), and community and cultural organizations in the Hilo area.

<p>Results of Background Research</p>	<p>Background research shows:</p> <p>Background research shows:</p> <ol style="list-style-type: none"> 1. The State Historic Preservation Division (SHPD) has previously reviewed and approved an Archaeological Assessment (Corbin 2006) which found no historic properties for this proposed site. 2. Waiākea, with its rich natural resources of the forests and the sea, has long been a center of habitation for Hawaiians and is often mentioned in Hawaiian folklore and legends. According to many legends, Waiākea has also been associated with Hawaiian royalty (<i>ali'i</i>) since the 16th century and was a gathering place for many ceremonies. The rich mountain resources of taro and sweet potato and the abundant marine resources particularly shrimp and fish made Waiākea very valuable to the Hawaiian people. At least three <i>heiau</i> (temple) of various sizes and class, stood within Waiākea. Many Hawaiian gods and goddesses frequented Waiākea including Pele, Hi'iaka and Pana'ewa. 3. Based on relatively abundant records of historical documents and oral-historical information, there is little doubt that the proposed project area was once part of an extensive upland agricultural zone, which had more agriculturally productive areas and scattered habitation sites. Waiākea, with its rich natural resources of the forests and the sea, has long been a center of habitation for Hawaiians and is often mentioned in Hawaiian folklore and legends. The rich resources of Waiākea were well known and sought after by many. Waiākea has also been associated with Hawaiian royalty (<i>ali'i</i>) since the 16th century and was a gathering place for many ceremonies. There are at least three <i>heiau</i> in Waiākea, one being Kapa'ie'ie Heiau, possibly belonging to the <i>luakini</i> class. 4. Previous archaeological research in the immediate vicinity of the proposed project area did not identify any historic properties due to extensive land modifications associated with urban development. Of particular note is the recent (Rechtman 2009) Archaeological study of the project area. Surveying the entire project area no archaeological resources were identified.
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<p>Results of Preliminary Community Consultation</p>	<ol style="list-style-type: none"> 1. A total of four native Hawaiian organizations were contacted for the purposes of this CIA; The Office of Hawaiian Affairs (OHA) and Hui Mālama O Nā Kūpuna O Hawai'i nei responded as of this writing. Efforts at obtaining additional testimony from the remaining individuals contacted for this CIA are ongoing. Preliminary community consultation for this project yielded the following results: 2. OHA voiced no comments on this assessment at this time. OHA recommends that consultation occur with the following individuals and/or organizations who may be willing to share their knowledge of the assessment area with you (see Section 5 of this assessment). 3. Hui Mālama O Nā Kūpuna O Hawai'i Nei responded in an email stating that our community contact letter and maps of the project area has been forwarded to their Hilo contacts.
<p>Recommendations</p>	<p>A good faith effort to address the following recommendations may help mitigate potential adverse effects of the proposed project on Hawaiian cultural practices and resources near the project area.</p>

Table of Contents

Management Summary	i
Section 1 Introduction	1
1.1 Project Background	1
1.2 Document Purpose	1
1.3 Scope of Work	2
1.4 Environmental Setting	2
1.4.1 Natural Environment.....	2
Section 2 Methods	8
2.1 Document Review	8
Section 3 Background Research	8
3.1 Traditional and Historical Background.....	8
3.1.1 Resources of Waiākea.....	12
3.1.2 <i>Heiau</i> of Waiākea	14
3.1.3 Waiākea Myths and Legends Summary	15
3.2 Historic Background.....	15
3.2.1 Late Pre-historic – Early Historic ca, 1790-1840	16
3.2.2 Mid 1800s	17
3.2.3 Early 1900s to the Present	18
Section 4 Previous Archaeology.....	20
4.1 Previous Archaeological Research	20
Section 5 Community Contact Process	28
Section 6 Cultural Landscape of the Project Area.....	31
6.1 Marine and Fresh Water Resources	31
6.2 Gathering of Plant Resources	31
6.3 Traditional Hawaiian Sites.....	32
6.4 Burials.....	32
6.5 Hawaiian Trails.....	32
Section 7 Summary and Recommendations	33
Section 8 References Cited	35
Appendix A Title	1
A.1 Section Heading	2
A.1.1 Sub-section Heading	2
Appendix B Title	1

B.1 Section Heading 2
 B.1.1 Subsection heading..... 2

List of Figures

Figure 1 USGS Map Showing Location of Project Area.....	3
Figure 2 Aerial Photograph Showing Location of Project Area.....	4
Figure 3 <i>Kukui</i> located on Kamoleao Property.....	6
Figure 4 Pūhala located on Kamoleao Property	6
Figure 5 Naupaka located on the Kamoleao Property	7
Figure 6 USGS Map Showing location of previous archaeological studies within the vicinity of the project area.....	20

List of Tables

Table 1. Legends of Waiākea, Hawai'i.....	9
Table 2. Archaeological studies conducted in Waiākea Ahupua'a.....	21

Section 1 Introduction

1.1 Project Background

At the request of Hawai'i Community College at Hilo, Cultural Surveys Hawai'i, Inc. has conducted this Cultural Impact Assessment (CIA) for the proposed Kamoleao Lulima Community Resource Center, at Panaewa, (KLCRC), Hawaiian Home Lands, Waiākea Ahupua'a, South Hilo District, Hawai'i Island, TMK: [3] 2-2-47:75 (Figure 1 & Figure 2).

This proposed project, 1.5 acre of the 12.77 acre Kamoleao parcel will consist of the construction of a 1,800 square foot building containing two large separate areas/rooms for a commercial kitchen and classroom. A 12 – foot covered *lānai* or patio will extend-out from three sides (north, south and west) of the building. The structure will be situated on 0.5 acres of land, and will include a driveway and parking area. Adjacent to the building will be a 1-acre community garden. Community and student volunteers will assist in the construction of the KLCRC building and preparation and cultivation of the garden.

The KLCRC commercial kitchen will be used as an enterprise for future sustainability, through kitchen rentals to community members for fundraising activities, food vendors who need a commercial kitchen to process and cook food and for marketing KLCRC valued-added products from the gardens, in addition, the community meetings; cultural and social gatherings; and financial literacy, microenterprise business development and gardening education classes.

For the purposes of this CIA, the Area of Potential Effect (APE) includes 1.5 acre of the 12.77 acre Kamoleao parcel, Tax Map parcel: (3) 2-2-47:75.

An Archaeological Assessment was conducted by Mr. Bob Rechtman of Rechtman Consulting in Kea`au, Hawai'i.

1.2 Document Purpose

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 Belt Collins Hawai'i, Ltd., CSH undertook this CIA. Through document research and (ongoing) cultural consultation efforts, this report document provides information pertinent to the assessment of the proposed project's impacts to cultural practices (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-42 and Hawai'i Administrative Rules Chapter 13-284.

1.3 Scope of Work

The agreed upon scope of work for the CIA is as follows:

1. Examination of historical documents, Land Commission Awards, and historic maps. The specific purpose of using these documents would be to identify historic and present Hawaiian activities that includes the gathering of plant, animal and other resources or agricultural pursuits in the region, as may be indicated in the historic record.
2. Review of the existing archaeological information pertaining to archaeological sites within the study area to reconstruct traditional land use activities and to identify and describe the cultural resources, practices, and beliefs associated with the parcel and identify present uses, if appropriate.
3. Coordination and consultation with 4 agencies or groups. These entities would include the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), the appropriate Island Burial Council (IBC), and Hui Mālama O Nā Kūpuna O Hawai'i Nei knowledgeable about cultural or practices of the region. This would be done to assist in the identification of cultural resources, alternative actions, and potential mitigation measures.
4. Preparation of a CIA report. This report, based on the above items, will include a summary of the research and an evaluation of the potential impact of the proposed development project, relating to cultural practices, land use, and identified features of the project area

1.4 Environmental Setting

1.4.1 Natural Environment

The project area is located approximately 10 miles southeast of Hilo Bay behind the present Prince Kūhio Mall Shopping Center of the island of Hawai'i. According to U.S. Department of Agricultural (USDA) soil survey website (<http://www.ctahr.hawaii.edu/soilsurvey/soils.htm>), the sediments within the project area consist entirely of Papai (rPAE) consists of well-drained, thin, extremely stony organic soils over fragmental Aa lava. These soils are gently sloping to moderately steep. Their soil temperature is between 72 degrees and 74 degrees F. Papai soils are used mostly for woodland. Small areas are used for pasture, orchards, and truck crops.

The project area are on uplands at an elevation ranging from near seal level to 1,000 feet and receive from 90 inches to ore that 150 inches of rainfall annually. Presently the vegetation in the vicinity of the project area has been reforested with native Hawaiian plants consisting of 'ōhi'a (*Metrosideros polymorpha* or *M. macropus*), hilo grass (*Paspalum conjugatum*), california grass (*Brachiaria mutica*), guava (*Psidium guajava* L.), kukui (*Aleurites moluccana*), kī (*Cordyline terminalis*), and pūhala (*Pandanus odoratissimus*), naupaka (*Scaecola taccada*) (Figure 3, Figure 4 & Figure 5).

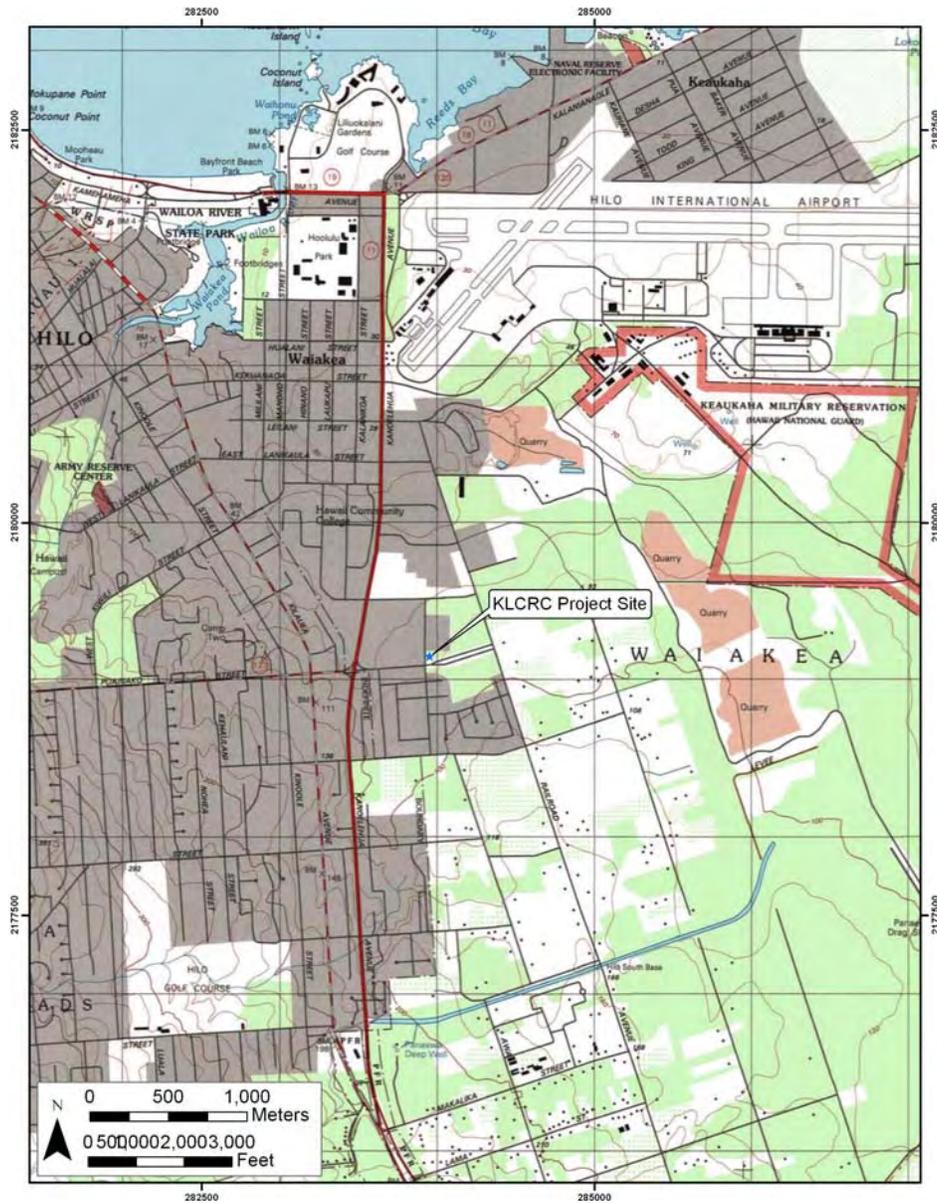


Figure 1 USGS Map Showing Location of Project Area.



Figure 2 Aerial Photograph Showing Location of Project Area.



Figure 3 *Kukui* located on Kamoleao Property



Figure 4 Pūhala located on Kamoleao Property



Figure 5 Naupaka located on the Kamoleao Property

Section 2 Methods

2.1 Document Review

Historic and archival research included information obtained from the University of Hawai'i at Mānoa (UHM) Hamilton Library, the State Historic Preservation Division Library, the Hawai'i State Archives, the State Land Survey Division, and the Archives of the Bishop Museum. Previous archaeological reports for the area were reviewed, as were historic maps and primary and secondary historical sources. Information on Land Commission Awards was accessed through Waihona 'Āina Corporation's Māhele Database (www.waihona.com).

Section 3 Background Research

3.1 Traditional and Historical Background

Waiākea literally means broad waters (Pukui et al. 1974:221), but is also a type of taro (*kalo*) grown in Kona, Hawai'i (*lehua ke'o ke'o*, a variety of taro called *waiākea*) (Pukui & Elbert 1986:377). Waiākea, with its rich natural resources of the forests and the sea, has long been a center of habitation for Hawaiians and is often mentioned in Hawaiian folklore and legends. According to many legends, Waiākea was also associated with the Hawaiian royalty (*ali'i*).

In *Native Planters in Old Hawai'i*, Handy and Handy (1972) record the agricultural methods used to grow taro, sweet potatoes, and sugar cane in Waiākea. Handy and Handy describe the natural habitat and agricultural development of Waiākea and South Hilo:

In lava-strewn South Hilo there were no streams whose valleys or banks were capable of being developed in terraces, but [taro] cuttings were stuck into the ground on the shores and islets for many miles along the course of the Wailuku River far up into the forest zone. In the marshes surrounding Waiākea Bay, east of Hilo, taro was planted in a unique way known as *kanu kipi* (mounded taro patches)...On the lava-strewn plain of Waiākea and the slopes between Waiākea and the Wailuku River, dry taro was formerly planted wherever there was enough soil. There were forest plantations in Pana'ewa and in the lower fern-forest zone above Hilo town and along the course of the Wailuku River. (Handy and Handy 1972:538-539)

Handy and Handy cite the Hawaiian language newspaper, *Ka Nūpepa Kū'oko'a*, in a 1922 article which refers to planting sweet potatoes and sugar cane on *pāhoehoe* (smooth lava) lava fields:

...There are *pāhoehoe* lava beds walled in by the ancestors, in which sweet potatoes and sugar cane were planted and they are still growing today. Not only

one or two but several times forty (*mau ka'au*) of them. The house sites are still there, not one or two but several times four hundred in the woods of Pana'ewa. Our indigenous bananas are growing wild, these were planted by the hands of our ancestors. (Handy and Handy 1972:131-132)

There are abundant references to Waiākea in the myths and legends of Hawai'i recorded by the early ethnographers Thrum, Emerson, Westervelt, and Fornander. An early account of the Hawaiian chiefdom Waiākea is told by Samuel Kamakau (1961:15-17) in a story of the unification of the Island of Hawai'i under chief 'Umi-a-Liloa, beginning with the chiefly residences of Waiākea in the 16th century. The legend establishes Waiākea as a relatively early residence of Hawaiian royalty (*ali'i*). Hilo's Kanoa Heiau, where human sacrifices were offered, was also mentioned in the story, indicating its early existence (Kelly, Nakamura and Barrère 1981:1).

Table 1 is a comprehensive list of Hawaiian tales which include Waiākea as a place setting. These legends were primarily found in the *Hawaiian Legends Index* (Revised Edition) compiled by Lillian Ching and edited by Dr. Masae Gotanda, Director of Hawai'i State Library (1989).

Table 1. Legends of Waiākea, Hawai'i

Author	Original Publication and Year	Legend Title
Emerson, Nathaniel	<i>Pele and Hi'iaka</i> (1915)	"Pele and Hi'iaka"
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folk lore</i> , v. 1 (1916-1919)	"The Story of Umi"
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folk lore</i> , v. 2 (1916-1919)	"Legend of Kuapakaa"
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folk lore</i> , v. 2 (1916-1919)	"Legend of Halemano"
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folk lore</i> , v. 1 (1916-1919)	"Legend of Kapuaokaoheloai"
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folk lore</i> , v. 1 (1916-1919)	"Legend of Kaipalaoa, the Hoopapa Youngster"
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folk lore</i> , v. 2 (1916-1919)	"Famous Men of Early Days"

Author	Original Publication and Year	Legend Title
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folklore</i> , v. 2 (1916-1919)	“Legend of Pamano”
Fornander, Abraham	<i>Fornander Collection of Hawaiian Antiquities and Folklore</i> , v. 2 (1916-1919)	“Brief Stories of Ghosts and Cunning”
Gowen	<i>Hawaiian Idylls of Love and Death</i> (n.d.)	“Keala”
Green	<i>Folk tales from Hawaii</i> (n.d.) also in <i>Hawaiian Stories and Wise Sayings</i> (n.d.)	“The Story of Pele and Hi‘iaka”
Hale‘ole, S. N.	<i>The Hawaiian Romance of Laieikawai</i> (n.d.)	“Kaipalaoa”
Thrum, Thomas G.	<i>More Hawaiian Folk Tales</i> (1923)	“Umi’s Necklace War Tradition”
Thrum, Thomas G.	<i>More Hawaiian Folk Tales</i> (1923)	“Kai a Kahinali‘i”
Thrum, Thomas G.	<i>More Hawaiian Folk Tales</i> (1923)	“Ulu’s Sacrifice”
Thrum, Thomas G.	<i>More Hawaiian Folk Tales</i> (1923)	“The Hinas of Hawaiian Folklore”
Thrum, Thomas G.	<i>Hawaiian Folk Tales</i> (1998)	“Stories of the Menehunes: As Heiau Builders”
Westervelt, William	<i>Legends of Gods and Ghosts</i> (1915)	“Keaomelemele, The Maid of the Golden Cloud”
Westervelt, William	<i>Legends of Gods and Ghosts</i> (1915)	“Keaunini”

Many of the above stories merely mention Waiākea in passing, including Fornander’s “Legend of Pamano” (1916-1919:304-305) and “Brief Stories of Ghosts and Cunning” (1916-1919:422-423) and Green’s “The Story of Pele and Hi‘iaka” (n.d.:25). The “Legend of Halemano” tells of love between Halemano and his wife Kamalalawalu and their home in Waiākea, in an area called ‘Uluomālama, apparently above the cliffs of Pana‘ewa, Hilo. Halemano looked at his wife, and when he saw the tears in her eyes his love for her again welled

up within him as he remembered how they had lived at 'Uluomālama in Waiākea, Hilo; so he chanted as follows:

We once lived in Hilo, in our own home,
 Our home that was in **Panaewa**...
 The streams of Hilo are innumerable,
 The high cliffs was the home where we lived...
 From the waters of Wailuku where the people are carried under,
 Which we had to go through to get to the many cliffs of Hilo,
 Those solemn cliffs that are bare of people...
Noho i Hilo i o maua hale-e,
He hale noho i Panaewa e;...
He kini, he lehu, kahawai o Hilo e,
Pali kui ka hale a ke aloha i alo ai. ...
Mai ka wai lumalumai kanaka o Wailuku,
A kaula i alo aku ai i na pali kinikini o Hilo,
O ia mau pali anoano kanaka ole, ...

(Fornander 1916-1919:250-251, vol. V, part II)

Another brief mention of Waiākea is found in Green's "The Story of Pele and Hi'iaka" in Hawaiian Stories and Wise Sayings. Hi'iaka, Pele's sister, "slept at Waiakea, Hilo, and in the morning kept on as far as Kukui-lau-mania, where she turned to gaze back over the country, then continued her journey toward the cliffs of Hilo" (Green n.d.:25). Waiākea was often visited by Hawaiian chiefs of high rank. In Westervelt's "Keaomelemele, The Maid of the Golden Cloud," chief Kahanai-a-ke-Akua (adopted son of the gods), and his friend Waiola (water of life), "went down to Waiākea, a village by Hilo...The men were invited to sport, but only Waiola went because Kahanai himself was of too high rank." (1915:133).

In the legend "Keala" (Gowen n.d.:43-50), "well-known landmarks" of Waiākea are viewed by Ahi, a Hawaiian priest, in his spirit form:

The green water below was the bay of Hilo, the mountain was the terrible Kilauea, where in Halemaumau, the house of everlasting fire, the goddess Pele was wont to ride the red surges with her sisters and tilt with lances of flaming lava. The road was the mountain-path from Waiakea to Kapapala... (Gowen n.d.:47)

John Papa 'Ī'ī makes two general references to Waiākea, Hilo. According to 'Ī'ī, at the time of Kamehameha I (circa 1800):

The lands of the chief of Kau were divided within their own district, each being given a portion and each asking for what he wanted. For this reason, a skilled war leader whose name I have forgotten said to Keoua Kuahuula, son of Kalaniopuu and half brother of Kiwalao, perhaps you should go to the chief and ask that these lands be given us. Let Waiākea and Keaau be the container from whence our food is to come and Olaa the lid. (‘Ī‘Ī 1959:13-14)

‘Ī‘Ī’s second reference notes the well-known surf of “Kanukuokamanu in Waiākea, Hilo” (‘Ī‘Ī 1959:134). Kanukuokamanu, on the western side of Wailoa River, was also mentioned in the 16th-century story by Kamakau (1961:15-17) as a beach where chiefs and people gathered “at night ... to amuse themselves with hula dancing, chanting, and the playing of games calling for forfeits of entertainment or sexual favors” (Kelly et al. 1981:1). This summary was likely drawn from two legends: “Story of Umi” and “Umi’s Necklace War Tradition.”

The “Story of Umi” describes the chiefly residences at Hilo and the king of Hilo, Kulukulua. The legend tells of the chiefs of Hilo gathering at a place called Kanukuokamanu, in **Waiākea**: “One night there was a grand entertainment for all the chiefs of Hilo at Kanukuokamanu, in **Waiākea**; there was dancing and games of *papahene*, *kilu* and *lōkū*. (*A he po lealea nui no na ‘īi o Hilo a pau ma Kanukuokamanu ma Waiākea, he hula, he papahene, a he kilu, a me a ka loku.*)” (Fornander 1916-1919:220-221)

A similar story “Umi’s Necklace War Tradition” also mentions the festive night at Kanukuokamanu, Waiākea, and ‘Umi’s marriage to ‘Ī‘iwalani, the daughter of the king of Hilo (Thrum 1923).

The “Legend of Kapuaokaokeloi” makes a passing reference to Waiākea as a place where the people of “high chief rank of Hilo” lived (*O Waiākea, i Hilo ka aina, o ka mua ke kaikunane, o ka muli ke kaikuahine, he mau alii lakou no Hilo*) (Fornander 1916-1919:540-541).

Again, this passage reiterates the importance of Hilo as a chiefly residence. This story is also told in “The Hina’s of Hawaiian Folklore” (Thrum 1923).

Another reference to the associated royalty of Waiākea can be found in the “Legend of Kaipalaoa, the Hoopapa Youngster” (Fornander 1916-1919:574-575). According to the legend, “Kaipalaoa” (a relative of Kukuipahu, the king of Kona) “was born in Waiākea, Hilo.”

3.1.1 Resources of Waiākea

The rich resources of Waiākea were well known and sought after by many. According to the legend, “Ulu’s Sacrifice,” Waiākea was the home of ‘Ulu (breadfruit) (Thrum 1923). During a famine, ‘Ulu died of starvation and he was laid to rest near a stream. The following morning, there was a breadfruit tree standing where he was buried, ending the famine (Pukui et al. 1974:219-220).

Many legends tell of the abundant fish and shrimp of Waiākea. The fishpond of Waiākea was so valued that Kamehameha I sent runners from Kawaihae and Kailua to fetch live mullet from Waiākea. Fornander's work describes Kamehameha I sending his fastest runners, Makoa and Kāneaka'ehu, to "Hilo to get mullet from the pond of Waiākea, on the boundary adjoining Puna" (*o ka nanawa ia o Makoa e holo ai i Hilo i ka anae o ka loko o Waiākea, aia ma ka palena e pili la me Puna*) (1916-1919:490-491).

Westervelt's story "Keaunini" tells of the abundant mullet of Lolakea and Waiākea. "The people feasted on the mullet of Lolakea and the baked dogs of Hilo and the humpbacked mullet of Waiakea and all the sweet things of Hawai'i" (1915:191).

In the “Legend of Kuapakaa,” the shrimps of Waiākea are mentioned, suggesting their value as a resource. The king of Hilo, Kulukulua, is also mentioned again in a chant as follows:

Our chief of Hilo, Kulukulua, is not a chief [by birth];

He is a snarer of the shrimps of **Waiākea**;

After the snaring,

He places the outside covering of the coconut on his ears.

O ua lii o makou o Hilo, o Kulukulua, aohe alii;

He pahahehele opae no Waiākea;

A pau ke pahahehele ana,

Kau ae la i ka pulu niu i ka pepeiao.

(Fornander 1916-1919:84-85)

This chant suggests that the chief of Hilo participated in tasks of the commoners and plainly states that he was not a chief by birth. The chant also may be the source of the saying “Waiākea of the ears that hold coconut-fiber snares” (*Waiākea pepeiao pulu ‘aha*) explained below.

There are two passages which mention Waiākea in Pukui’s *‘Ōlelo No ‘eau Hawaiian Proverbs & Poetical Sayings* (1983). The first passage (passage 2901) is a proverbial saying which refers to the small fish, shrimp, and crab resources of Waiākea: “Waiākea of the ears that hold coconut-fiber snares” (*Waiākea pepeiao pulu ‘aha*). The saying is further explained:

Snares for small fish, shrimp, or crabs were made of a coconut midrib and the fiber from the husk of the nut. When not in use the snare was sometimes placed behind the ear as one does a pencil. This saying is applied to one who will not heed - he uses his ears only to hold his snare. (1983:318)

The second saying is a common expression used in chants of Hilo and refers to “The sparkling sand of Waiolama” (*Ke one ‘anapa o Waiolama*) “a place between Waiākea and the town of Hilo. It was said to have sand that sparkled in the sunlight” (passage 1773).

“Kai a Kahinalii” is the tale of a disastrous flood which devastated the island of Hawai‘i. After the waters ebbed, two survivors, a fisherman and his wife descended “the gentle slope that leads to the bay of Waiākea. There they built a temple and offered sacrifices to the gods” (Thrum 1923:234). Perhaps this temple is one of the recorded *heiau* described below.

3.1.2 *Heiau* of Waiākea

According to Hunt & McDermott who turned to Thrum for their source, there were “16 *heiau* for Hilo District. Of these, three were located near the coastline in the *ahupua‘a* (land division) of Waiākea (1994:11).” The three *heiau* within Waiākea are: Kapa‘ie‘ie Heiau (unknown class, Site 50-10-35-18883), Makaokū Heiau (*luakini*, sacrificial temple, class, Site - 188843) on the shore opposite of Coconut Island (Mokuola), and Ohele Heiau (*luakini* class, Site - 18884).

Research by Rosendahl of Waiākea Ahupua‘a is thorough and includes mention of one specific *heiau* within Waiākea: Kapa‘ie‘ie (Rosendahl 1994:5). Kapa‘ie‘ie Heiau was originally recorded by A. E. Hudson in a 1932 manuscript of archaeological and historical literature research of east Hawai‘i (Hudson 1932). According to Rosendahl, Kapa‘ie‘ie Heiau was located “along the old Hilo – ‘Ōla‘a trail (not far from the route of modern-day Kīlauea Avenue)” (Rosendahl 1994:5). Hudson writes:

There was a *heiau* named Kapaieie near Honokawailani in **Waiākea**. Bloxam who passed the site on his way from Hilo to the volcano say that its center was marked by a single coconut tree. At the time of his visit nothing remained but ruined walls choked with weeds. He was told that the priests would lie in wait for passersby and dispatch them with clubs. Thrum [1908:40] states that the site was famed in the Hilo-Puna wars but its size and class are unknown. No remains of any kind could be found and no Hawaiians with whom I talked had ever heard of it.(Hudson 1932:240)

According to Thrum, Makaokū Heiau was located “on the shore opposite Cocoanut Island, Hilo, of *luakini* class, connected with the noted Mokuola place of refuge; dimensions unknown, though it is said to have had a high pyramid of stone as if for a place of observation. The stones of this *heiau* were taken by Capt. Spencer in the sixties for a boat landing” (1907a:40). Thrum further notes: “...the area of [Mokuola] included also a portion of the mainland adjoining. The *heiau* connected with it, named Makaoku, was of the *luakini* class” (1907b:56).

Thrum also had information on Ohele Heiau which was located in Waiākea near the old Pitman store. It was reportedly “a *luakini* class *heiau* measuring 60 feet square. It was destroyed before Pitman’s time” (Stokes and Dye 1991:155).

3.1.3 Waiākea Myths and Legends Summary

Waiākea, with its rich natural resources of the forests and the sea, has long been a center of habitation for Hawaiians and is often mentioned in Hawaiian folklore and legends. According to many legends, Waiākea has also been associated with Hawaiian royalty (*ali‘i*) since the 16th century and was a gathering place for many ceremonies. The rich mountain resources of taro and sweet potato and the abundant marine resources particularly shrimp and fish made Waiākea very valuable to the Hawaiian people. At least three *heiau* of various sizes and classes, stood within Waiākea. Many Hawaiian gods and goddesses frequented Waiākea including Pele, Hi‘iaka and Pana‘ewa.

3.2 Historic Background

The *ahupua‘a* (land division extending from the mountains to the sea) of Waiākea, South Hilo, is large, encompassing some 95,000 acres. It extends from the coast to approximately the 6,000 foot elevation on the windward slope of Mauna Loa. In 1979 Holly McEldowney prepared

an "Archaeological and Historical Literature Search and Research Design," as part of a "Lava Flow Control Study" (McEldowney 1979). In her report, McEldowney describes five zones of land use and associated resources. The five zones, which are applicable to Waiākea, include: I. Coastal settlement; II. Upland Agricultural; III. Lower Forest; IV. Rain forest; and V. Sub-Alpine or Montaine (McEldowney 1979). The current project area exists entirely within Zone II, or the Upland Agricultural zone. Thus, only this zone is described in depth here.

Zone II is defined as ranging from 50 - 1,500 ft in elevation. The zone was described by early visitors to Hilo Bay as "open parkland gently sloping to the base of the woods...an expanse broken by widely spaced cottages, neatly tended gardens, and small clusters of trees" (McEldowney 1979).

The present study area is situated within the lower elevations of this upland agricultural zone. Though described as a vast "expanse", it would appear that only the more agriculturally productive areas were intensively farmed. In the 1820s, it was "estimated that 1/20 of the expanse (i.e., zone of cultivation) in N. and S. Hilo was planted in crops" (Goodrich 1826:4 cited in McEldowney 1979:21). The reasons for what appeared to the early visitors as a "lack of more extensive planting" (McEldowney 1979:21) include the need for fallow periods especially in soils where nutrients are rapidly leached out. More important to intensive agricultural use in the Hilo area is soil type or lack thereof. Intensive agricultural in Zone II was focused on areas with a soil mantle leaving younger exposed lava areas for plants not needing continuous care (e.g. grasses, ferns).

Habitation within the upland agricultural zone (i.e. Zone II) apparently included some permanent occupation sites but was still dominantly temporary. The description of habitations refer to "scattered huts" with adjacent "garden plots" or "cottages" with "neatly tended gardens" (McEldowney 1979: 18-19), but include no descriptions of village complexes like those along the coast.

Over time the upland agricultural zone was converted from forest to "open parkland" where plantings occurred on soil mantled lava flows. Habitation for most part was probably temporary with a few scattered permanent occupation complexes.

3.2.1 Late Pre-historic – Early Historic ca, 1790-1840

The rich and varied resources that Waiākea offered made it one of the most important locales on Hawai'i Island. Traditional accounts concerning Waiākea include references to it being the seat of chiefly residences as early as ca. A.D. 1550 (Kelly, Nakamura, Barrère 1981). Chiefly associations with Waiākea continued through traditional times and into the historic era. Kamehameha retained Waiākea after he had conquered all of the islands (ca. 1800), and at "his death he personally held Hilo lands, including Pi'i-honua, Punahoa, and Waiākea, descended to Liholiho, his son and heir to the kingdom..." In addition, " Kamehameha had given the *'ili kūpono* (independent subdivision of an *ahupua'a*) of Pi'opi'o to his favorite wife Ka'ahumanu"

(Kelly, Nakamura, Barrère 1981: 11). The *'ili* of Pi'opi'o is in Waiākea and is situated between Hilo Bay and Wailoa River and its associated fishponds.

Land use during the early historic period was still essentially subsistence-based though major changes were occurring. The sandalwood trade, establishment of the American Board of Commissioners for Foreign Missions (ABCFM) station in Hilo, and the arrival of whalers began the shift away from subsistence to a market-based economy. Settlement was still focused on the coastal zone as was most of the agricultural production of both indigenous food crops and newly introduced plants.

During this early historic period the land use of the Forest and Sub-Alpine Zones was changing. The more traditional land use activities in the upper zones, such as the procurement of timber products and bird feathers (McEldowney 1979:35), was replaced by the hunting of cattle, goats, and sheep in the upper zones. These animals were introduced in the 1790s and after an imposed 10 year prohibition on their killing had spread over large portions of the interior of Hawai'i Island, especially the Waimea area. However, "by the 1830s substantial amounts of hides, jerked meat, and tallow were exported from Hilo" (McEldowney 1979:36).

3.2.2 Mid 1800s

By the middle of the 19th century, traditional land tenure changed with the privatization of land ownership. Generally referred to as the "Great Māhele" privatization actually included a number of government acts from the late 1840s to the mid 1850s. The Kamehameha dynasty's control over the valuable Waiākea Ahupua'a was affirmed in the *ahupua'a*'s status as Crown Land, with the *'ili* of Pi'opi'o awarded to Victoria Kamāmalu (LCA 7713:16), a granddaughter of Kamehameha I and heir to Ka'ahumanu as well.

Twenty-six (26) Land Commission Awards (LCAs) were granted within Waiākea. None of these LCAs are within the present study area. The LCAs were all within the coastal zone, except for two (2663 and 2402) which were in the lower portion (i.e. ca. 100 ft. AMSL) of the upland agricultural zone. The LCAs or *kuleana*(s) were for the most part focused around the edges of the large fishponds of Waiākea. Land use information of the *kuleana* generally refer to cultivated fields with house lots indicating habitation and agricultural production within the same zone, unlike leeward Hawai'i Island where in many cases *kuleana* included coastal house lots with associated upland agricultural lots, because of elevation dependent rainfall.

Interior land use during this period was progressing toward more organized ranching, especially cattle ranching. Timber for firewood and housing was also still being exploited, as Hilo was being transformed into an entirely wooden-framed "New Bedford type Whaling Town" (McEldowney 1979:37).

The coastal zone still contained the vast majority of the population. Houses and stores were concentrated in the northern half of Hilo Bay, somewhat removed from Waiākea, because at the time, the main pier for Hilo was at the mouth of the Wailuku River.

3.2.3 Early 1900s to the Present

Sugar and its associated industries continued to expand during this period. The Hawai'i Consolidated Railway was built eventually extending "from Waiākea Mill and wharf through Puna, most of 'Ōla'a and along the N and S Hilo coast" (McEldowney 1979:41). Many of the immigrant laborers from the late 1800s moved off the plantation, being replaced by new Filipino laborers. Hilo continued to grow and became the second largest urban center in the new Territory of Hawai'i.

Ranching in the Hilo area, but not specifically in Waiākea, came under the control of two large enterprises: the Parker and Shipman ranches. In Waiākea a large portion of Zone II (Upland Agricultural Zone) that was too rocky for sugar cane cultivation became available for lease as Waiākea pasture lands. The specific use of the pasture land is not known but McEldowney notes: "A substantial amount of grazing land adjacent to Hilo or to sugarcane fields supported dairy cows for Hilo's several dairies" (McEldowney 1979:41). In 1918 the 30-year lease of the Waiākea Mill Co. expired and, because Hawai'i had become a territory, the "land fell under homesteading laws that required the government to put some of it up for lease to homesteaders who would be willing to grow sugar cane on it. Waiākea Mill was used to grind the crop for them. A total of about 700 acres of land was divided into cane lots (between 10 and 76 acres each) and house lots ranging from 1 to 3 acres..." (Kelly, Nakamura, Barrère 1981:121). The homestead and cane lots eventually reverted to the overall mechanized cultivation and the homestead and cane lot "experiment was declared a failure" (Kelly, Nakamura, Barrère 1981:121).

By the 1920s the Waiākea Mill Co. had some 7,000 acres in cane production. Also, in the 1920s large tracts of remaining forest in Waiākea were "designated as forest reserve" (McEldowney 1979:42). The main reason appears to have been the maintenance of the "forest as a 'watershed' to capture, retain, and support the continuous flow of water necessary to the sugar industry" (McEldowney 1979:42). Clearly, sugar was the dominant economic factor during this period including the formation of settlements (i.e. camps).

In 1931, the Hawaiian Cane Products Co., Ltd. started a firm that organized to produce a fiber board product called "Canec" which was made from bagasse, the fibrous residue of sugar cane crushing. The Canec plant usually burned as fuel in sugar factories. Originally the Waiākea Mill burned their bagasse but in 1931 they sold their bagasse to the Canec plant which was built approximately 200 yards from Waiākea Sugar Mill. In May of 1948, Waiākea Mill & Plantation Company was liquidated (Condé and Best 1973:119).

During this period major construction jobs started in the 1920s were completed. These major construction jobs, in part, included Hilo Bay, wharfs and breakwater and bridges. Some of these projects were actually major reconstruction work on damages during the winter of 1923, which included storm surf in January and a tidal wave in February (Kelly, Nakamura and Barrère 1981:171). During the World War II period in Hilo, expansion and designation of Hilo airport as General Lyman Field and the construction of the Saddle Road were major projects undertaken as part of the military presence on the island, which was very substantial.

After statehood (1959) and with the closing of the mill and the Canec plant, tourism was looked at as the next economic mainstay. In Waiākea, C. Brewer & Co. built a hotel complex at the site of the old Canec plant. Other hotels were built along the Hilo Bay frontage of Waiākea near Coconut Island or Mokuola. Large tracts of former Waiākea Homestead and Cane lots were converted to housing or sub-division tracts.

Section 4 Previous Archaeology

4.1 Previous Archaeological Research

An overview of previous archaeological studies in Waiākea Ahupua'a is presented in Table 2 and Figure 6. A discussion of archaeological findings relevant to the current project area follows.

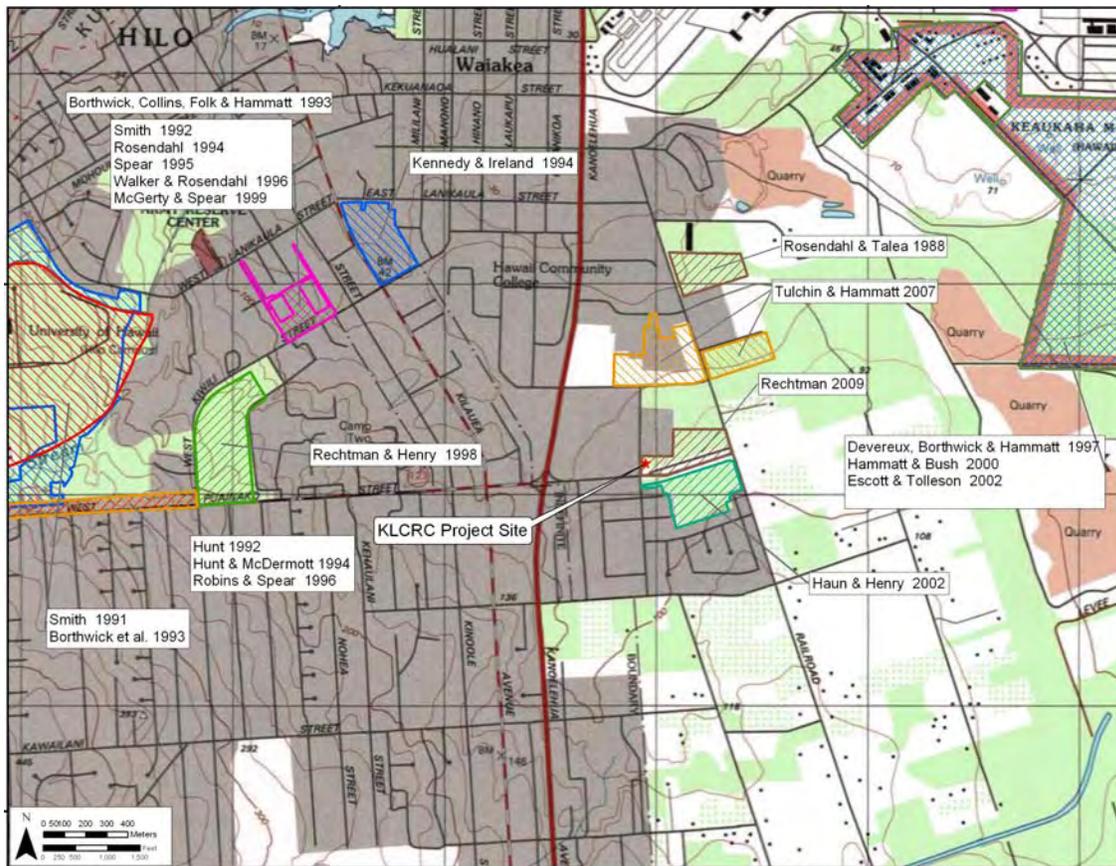


Figure 6 USGS Map Showing location of previous archaeological studies within the vicinity of the project area.

Table 2. Archaeological studies conducted in Waiākea Ahupua'a

Source	Nature of Study	Location	Findings
Cordy, 1986	Parcel Assessment	TMK: [3] 2-4-005:018	No finds
Rosendahl, M. 1988a	Archaeological Reconnaissance Survey	Hilo Judiciary Complex 5 Locations each 5+ acres TMK [3] 2-2; [3] 2-2-002:001, 054, 055, 056, 062; [3] 2-2-010:016; [3] 2-2-033: 011, 12, 13, 14, 19, 20; [3] 2-3-015:001 & [3] 2-3-044:009	No finds due to ground disturbing activities
Rosendahl, M. 1988b	Archaeological Reconnaissance Survey	Hilo Wastewater Treatment Facility Site, 23 acres, TMK: [3] 2-1-013:012, 013, 020, 022	No finds
Rosendahl, M. & L. Talea, 1988	Archaeological Reconnaissance Survey	TMK [3] 2-1-12: 106 & [3] 2-1-25:086	No finds
Jensen, 1991	Archaeological Inventory Survey	Komohana Golf Course TMK: [3] 2-3-044:009	One previously identified site 50-10-35-14946 and one new site 50-10-35-14947
Smith, 1991	Site Inspection	University of Hawai'i, Hilo: Perimeter Road Alignment, Research and Technology Park Phase I, Waiākea, TMK: [3] 2-4-001:007	One site on the 1500-750 year old flow; inventory survey recommended
Hunt 1992	Interim Report: Archaeological Inventory Survey	Pu'ainako Street Extension Project, Lands of Waiākea, Kukuau 1 and 2, and Ponahawai	Field inspection findings – 31 features identified within the project area - walls, mounds, platforms, and faced terraces
Moniz, 1992	Historical and Archaeological Synthesis of Land Use and Settlement Patterns	Waiākea Ahupua'a,	A listing of 1979-1992 inventory surveys within Waiākea and discussion of finds including walls, platforms and a burial cave

Source	Nature of Study	Location	Findings
Smith, 1992	Field Inspection for State Land Disposition of the Proposed Dept. of Water Supply Office Site in Hilo	Waiākea Cane Lots, Waiākea, (TMK: [3] 2-4-57:001)	Several stacked stone walls, mounds, a large rectangular enclosure, and several C-shapes
Spear, 1992	Archaeological Inventory Survey	HCEOC Project, Pi'ihonua TMK [3] 2-3-032:001 por.	2 sites 50-10-35-18443, 50-10-35-18444
Borthwick and Hammatt, 1993	Survey and Testing of	Proposed University of Hawai'i at Hilo Expansion Area (TMK 2-4-01:7 and 41)	4 historic rock clearance mounds and 1 stacked boulder wall – constructed and maintained by Waiākea Mill
Borthwick, et al. 1993	Archaeological Survey and Testing	Proposed for Research and Technology Lots at the University of Hawai'i at Hilo TMK [3] 2-4-001:007 & 041; 163-acres	Four sites found all thought to be related to historic sugar cane agriculture
Spear, 1993	Archaeological Inventory Survey	Hilo Health Care Center TMK: [3] 2-3-031:001 & [3] 2-3-32:001	No finds
Hunt and McDermott 1994	Archaeological Inventory Survey	Pu'ainako Street Extension Project, Lands of Waiākea, Kukuau 1 and 2, and Ponahawai TMK: [3] 2-3; [3] 2-4; [3] 2-5	Documents 13 sites with 88 features with excavation at 5 features. Almost all commercial agriculture clearing mounds
Kennedy & Ireland 1994	Archaeological Inventory Survey	Proposed Hilo Forestry Office Complex Extension Located at TMK: [3] 2-2-27:01 (Portion) in Waiākea Ahupua'a corner of Kawili & Kīlauea, 0.5 acres	No finds

Source	Nature of Study	Location	Findings
Maly et al., 1994	Archaeological Inventory Survey	Waiākea Cane Lots Portion of Parcel 6 TMK: [3] 2-4-057:001; 4.5-acres	4 sites comprising 47 features (C-shape and L-shape walls, mounds, terraces and walls). Thought similar to Hunt & McDermott (1994) commercial agricultural sites but c14 date and artifacts suggested pre-contact component
Rosendahl, P., 1994	Archaeological Inventory Survey	Waiākea Cane Lots, Portion of Parcel 6, Hilo, TMK [3] 2-4-057:001	Four sites with 47+ components were recorded; these were all probably historic features associated with sugar cane cultivation and transportation
Spear, 1995	Report on Data Recovery Excavations	Sites 50-10-35-19431, 19432, 19433, and 19434, Land of Waiākea, TMK [3] 2-4-057:001	Data recovery of the Maly et al (1994) parcel. Sites 50-10-35-19431, 19432, 19433, and 19434; all features post-contact, a few T-habitations but most related to sugar cane agriculture
Borthwick, et al., 1996	Archaeological Survey	Proposed Reservoir and Waterline Easement for the University of Hawai'i at Hilo TMK: [3] 2-4-001:012 & [3] 2-4-003:026	No sites
Fortini et al., 1996	Archaeological Inventory Survey	Proposed Mohouli Connector Road Ahupua'a of Kukuau 1 and 2, Ponahawai and Punahoa, TMK 3-2-3-044:009; [3] 2-4-001:122; [3] 2-4-073:035; [3] 2-5-006:001	No finds
Robins and Spear, 1996	Archaeological Inventory Survey	Puainako Street Realignment/Extension Project Expanded Corridor, Waiākea, Kukuau 1 and 2, and Ponahawai	Additional historic sugar cane agricultural features were located in the expansion of the Hunt & McDermott corridor study area

Source	Nature of Study	Location	Findings
Walker and Rosendahl, 1996	Archaeological Assessment Study	Hilo Judiciary Complex Project, 7 locations TMK: [3] 2-6-15:1, 2; [3] 2-6-16:2; [3] 2-4-49:18, 19; [3] 2-2-15:33; 2-4-1:12; [3] 2-3-36:3; 2-3-32:1; [3] 2-4-57:1)	4 previously identified sites 19431 C-shape, 19432 U-shape, 19433 complex 19434 complex & 1 new site 1721-1 sugar cane mill
Devereux et al., 1997	Archaeological Reconnaissance Survey	Keaukaha Military Reservation South Hilo District (Hawai'i National Guard) 503.6 acre parcel, TMK: [3] 2-1-12:3 and [3] 2-1-13:10, 504-acres	Identifies 2 sites, a C-shape enclosure and a coral mound (see Hammatt & Bush 2000)
Rechtman and Henry 1998	Archaeological Inventory Survey	University of Hawai'i-Hilo Kawili Street Development (TMK: [3] 2-4-01:5)	4 previously identified sites 50-10-35-19431, -19432, -19433, -19434, & new site -21461; 117 features all related to commercial sugar cane agriculture
Carson, 1999	Archaeological Inventory Survey	176-Acre Pana'ewa Campus Site, Waiākea Ahupua'a, just SW of Panaewa Drag Strip, (TMK: [3] 2-3-13:154)	No finds
McGerty and Spear, 1999	Inventory Survey	An Additional Unsurveyed Portion of TMK: [3] 2-4-57:1, Land of Waiākea,	4 previously identified sites 50-10-35-19431, -19432, -19433, -19434; 13 features all related to commercial sugar cane agriculture

Bush et al., 2000	Archaeological Inventory Survey	Approx. 20-Acre Parcel Proposed for the USDA Pacific Basin Ag. Research Center near the Intersection of Komohana and Puainako St. TMK [3] 2-4-001:122	Site 50-10-35-22,080, one isolated human femur in sinkhole
Hammatt and Bush, 2000	Archaeological Inventory Survey	Selected Portions of the Hawai'i Army National Guard 503.6 acre Keaukaha Military Reservation, Waiākea Ahupua'a [3] 2-1-012:003 & [3] 2-1-013:010	Same project area as Devereux et al. 1997 de-accessions coral mound & records 4 sites: 50-10-35-18869 Puna Trail, 21657 C-shape (military), 21658 5 ahu, 21659 modified blister (agricultural)
Haun and Henry, 2000	Archaeological Inventory Survey	Hilo Harbor Facilities Expansion (TMK: [3] 2-1-09:2, 12, 41, 42 & [3] 2-1-07:20-37) Land of Waiākea,	Site 22486, early 1900s U.S. engineer facilities
Escott and Tolleson, 2002	Archaeological Inventory Survey	Keaukaha Military Reservation [TMK [3] 2-1-12:3 and 2-1-13:10] South Hilo District, Island of Hawai'i [TMK 2-1-12:3 and 2-1-13:10]	Four sites 50-10-35-18869, 50-10-35-21657, -21658, -21659
Hammatt et al., 2002	Traditional and Cultural Practices Assessment	Proposed U.S.D.A. Pacific Basin Agricultural Research Facility (TMK 2-4-01: por. 122)	No cultural properties or sites identified
Haun and Henry, 2002	Archaeological Inventory Survey	DHHL Project at Pana'ewa Land of Waiākea, (TMK: [3] 2-2-47-:01) 28-acres	No finds
Corbin 2006	Archaeological Assessment	University of Hawai'i at Hilo (TMK: [3] 2-4-001: por. 167)	No historic properties identified.
Tulchin J. and Hammatt 2007	Archaeological Literature Review and Field Inspection	Approximately 33-acre Wal-Mart Expansion Project, TMK: [3] 2-2-047:059 & 072 and [3] 2-1-025:090	No historic properties were identified
Rechtman, 2009	Request for SHPO	Kamoleao Laulima Community Resource Center (TMK: 3-2-2-	No historic properties were identified

	Concurrence with a Determination of No Historic Properties Affected	047:075) [Present study area]	
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In 1988 Paul H. Rosendahl, Ph.D., Inc. (PHRI) conducted an archaeological reconnaissance survey for a proposed irradiation plant site approximately 900 m north of the current project area (Rosendahl & Talea 1988). No historic properties were identified due to extensive land modifications associated with urban development.

In 1993 Cultural Surveys Hawai'i (CSH) conducted an archaeological inventory survey for lands proposed for the expansion of the University of Hawaii at Hilo approximately 2.5 kilometers west of the present study area (Borthwick et al. 1993). Four historic properties were identified: SIHP No. 50-10-35-18667 (agricultural field complex), SIHP No. -18668 (enclosure), SIHP No. -18669 (enclosure), and SIHP No. -18670 (agricultural field complex). All four sites were determined to be associated with historic sugar cane agriculture.

In 1994 Archaeological Consultants of Hawaii, Inc. conducted an archaeological inventory survey for the proposed Hilo Forestry Office Complex Extension (Kennedy & Ireland 1994) approximately 1.5 kilometers northwest of the present study area. No historic properties were identified due to extensive land modifications associated with the urban development of Hilo. However, one historic property, SIHP No. 50-10-35-19626 (stone wall), was identified bordering the perimeter of that study area. The site consists of a bi-faced, core filled wall constructed of stacked, and in some sections, mortared basalt boulders. The site was determined to be of historic origin.

In 1997 CSH conducted an archaeological reconnaissance survey of Keaukaha Military Reservation (Devereux et al. 1997) approximately 1.8 kilometers northeast of the present study area. Two historic properties were observed and given temporary site numbers: CSH 1 (C-shape) and CSH 2 (coral mound). Both sites were determined to be associated with the Old Puna Trail, a route utilized for travel between the Hilo coastline and the Kilauea Caldera. The relative age (Pre-contact or historic) of the sites was not determined.

In 1998 PHRI conducted an archaeological inventory survey for the University of Hawai'i at Hilo Kāwili Street Development (Rechtman & Henry 1998) approximately 1.8 kilometers west of the present study area. One historic property was identified: SIHP No. 50-10-35-21461, an agricultural field complex associated with historic sugar cane agriculture, consisting of piled rock mounds and stacked rock walls and enclosures.

In 1999 Haun & Associates conducted an archaeological inventory survey approximately 1.6 kilometers WNW of the current project area (McGerty and Spear 1999). Four historic properties were identified: SIHP No. 50-10-35-19431, SIHP No. -19432, SIHP No. -19433, and SIHP No. -19434. All four sites were determined to be associated with historic sugar cane agriculture.

In 2002 Haun & Associates conducted an archaeological inventory survey immediately south of the current project area (Haun & Henry 2002). No historic properties were identified due to extensive land modifications associated with urban development.

Of particular note is the recent (Rechtman 2009) archaeological study of the present project area. An intensive pedestrian survey of the entire project area identified no archaeological resources. The study concluded: “..given the nature of the substrate it is highly unlikely that any such resources are present in a subsurface context.” (Rechtman 2009:9).

Section 5 Community Contact Process

Throughout the course of this CIA, an effort was made to contact and consult with Hawaiian cultural organizations, who might have knowledge of and/or concerns about cultural resources and practices specifically related to the project area. At this writing, a number of attempts (2-4) were made to contact individuals, organizations, and agencies apposite to the subject CIA. Community consultation is ongoing. This effort was made by letter, e-mail, telephone and in person. In the majority of cases, letters along with a map and aerial photograph of the project area were mailed with the following text:

At the request of Hawai'i Community College at Hilo, Cultural Surveys Hawai'i Inc. (CSH) is conducting a Cultural Impact Assessment (CIA) for the proposed Kamoleao Laulima Community Center, at Panaewa, Hawaiian Homelands, Waiākea Ahupua`a, South Hilo District, Hawai'i Island. This proposed project, 1.5 acre of the 12.77 acre Kamoleao parcel will consist of the construction of a 1,800 square foot building containing two large separate areas/rooms for a commercial kitchen and classroom. A 12 – foot covered lānai or patio will extend-out from three sides (north, south and west) of the building. The structure will be situated on 0.5 acres of land, and will include a driveway and parking area. Adjacent to the building will be a 1-acre community garden. Community and student volunteers will assist in the construction of the KLCRC building and preparation and cultivation of the garden.

The purpose of this cultural study is to assess potential impacts to cultural practices as a result of the proposed development in Waiākea Ahupua`a. We are seeking your kōkua and guidance regarding the following aspects of our study:

General history and present and past land use of the project area.

Knowledge of cultural sites which may be impacted by future development of the project area - for example, historic sites, archaeological sites, and burials.

Knowledge of traditional gathering practices in the project area, both past and ongoing.

Cultural associations of the project area, such as legends and traditional uses.

Referrals of kūpuna or elders and kama`āina who might be willing to share their cultural knowledge of the project area and the surrounding ahupua`a lands.

Any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the project area.

Name	Background, Affiliation	Comments
Ayau, Halealoha	Hui Mālama O Nā Kūpuna O Hawai'i Nei, Po`o	See below.
Cayan, Phylliss, "Coochie"	State Historic Preservation Division, Cultural Branch	Sent a community contact letter date, January 28, 2009.
Nāmu`o, Clyde	Office of Hawaiian Affairs, Administrator	See below.
Sherlock, Kupuna Ululani	Hawai'i Island Burial Council, Vice-Chair	Sent a community contact letter to the State Historic Preservation Division, c/o Phyllis Cayan for Kupuna Ululani Sherlock on January 28, 2009.

In an email dated, February 3, 2009, Mr. Halealoha of Hui Mālama O Nā Kūpuna O Hawai'i Nei, responded:

"I forwarded the information to our Hilo contacts. Aloha makahiki hou!"

In a letter dated February 17, 2009, Mr. Clyde Nāmu`o, the Administrator for the Office of Hawaiian Affairs, responded:

"The Office of Hawaiian Affairs (OHA) is in receipt of your January 28, 2009 letter initiating consultation and seeking comments ahead of a cultural impact assessment for the proposed Kamoleao Laulima Community Center which will consist of the construction of a 1,800 square foot building, driveway and parking area situated on approximately 1.5 acres of land.

OHA has no comments on the assessment at this time. OHA recommends that consultation occur with the following individuals and/or organizations who may be willing to share their knowledge of the assessment area with you: Puna Lerma, Ululani Sherlock, William Ke`alakahī Meyers, Jenō Enocencio, Ka Haka `Ula O Ke`elikōlani, Nā Pua No`eau-UH Hilo office, the Edith Kanaka`ole Foundation, and the Pana`ewa Hawaiian Home Lands Community Association. Please remember that this list is all encompassing and we are sure additional individuals and organizations will be identified as you move forward with your consultation process.

Thank you for initiating consultation at this early stage and we look forward to the opportunity to review the draft assessment and provide additional comments.

Section 6 Cultural Landscape of the Project Area

Traditional cultural practices are based on a profound awareness concerning harmony between man and our natural resources. The Hawaiians of old depended on these cultural practices for survival. Based on their familiarity with specific places and through much trial and error, Hawaiian communities were able to devise systems that fostered sustainable use of nature's resources. Many of these cultural practices have been passed down from generation to generation and are still practiced in some of Hawai'i's communities today.

This project seeks to assess traditional cultural practices as well as resources pertaining to the project area within Waiākea Ahupua'a. This section will assess the different types of traditional practices, cultural resources associated within the vicinity.

Discussion of specific aspects of traditional Hawaiian culture as they may relate to the project area and Waiākea Ahupua'a are presented below.

6.1 Marine and Fresh Water Resources

The sea is a rich resource and the Hawaiian people were traditionally expert fishermen. Fish of all types supplied the Hawaiian diet with a rich source of protein. Hawaiian women practiced the gathering of seaweeds and salt. According to Fornander (1916), the fishponds of Waiākea were abundant with mullet, shrimps and crabs highly valued by Kulukulua and Kamehameha I.

The present project area is located well *mauka* of the Waiākea shoreline and fishponds. Additionally, no streams, ponds or other freshwater sources are identified within the project area. None of the individuals attempted to be contacted for this assessment identified any traditional Hawaiian practices within the present project area. Thus no ongoing traditional cultural practices related to marine and freshwater resources occur in the present project area.

6.2 Gathering of Plant Resources

Hawaiians utilized upland resources for a multitude of purposes. Forest resources were gathered, not only for the basic needs of food and clothing, but for tools, weapons, canoe building, house construction, dyes, adornments, hula, medicinal and religious purposes. According to Handy & Handy (1972), there were recorded agricultural methods used to grow taro, sweet potatoes, and sugar cane in Waiākea. None of the individuals attempted to be contacted for this assessment identified any traditional Hawaiian practices within the present project area. Thus no ongoing traditional cultural practices related to marine and freshwater resources occur in the present project area.

6.3 Traditional Hawaiian Sites

According to Hunt & McDermott (1994), three *heiau* were located near the coastline in the *ahupua'a* of Waiākea. The three *heiau* within Waiākea are: Kapa'ie'ie Heiau (unknown class) located along the old Hilo – 'Ōla'a trail (not far from the route of modern-day Kīlauea Avenue), Makaokū Heiau (*luakini* class) on the shore opposite of Coconut Island (Mokuola), and Ohele Heiau (*luakini* class) located in Waiākea near the old Pitman store.

During this assessment there were no traditional Hawaiian sites identified within the present project area. None of the individuals attempted to be contacted for this assessment identified any traditional Hawaiian sites within the present project area.

6.4 Burials

During this assessment there were no burials identified within the present project area. None of the individuals attempted to be contacted for this assessment identified any burials within the present project area.

6.5 Hawaiian Trails

During this assessment there were no Hawaiian trails identified within the present project area. None of the individuals attempted to be contacted for this assessment identified any Hawaiian trails within the present project area.

Section 7 Summary and Recommendations

At the request of Hawai'i Community College at Hilo, Cultural Surveys Hawai'i, Inc. has conducted this Cultural Impact Assessment (CIA) for the proposed Kamoleao Laulima Community Resource Center, at Panaewa, (KLCRC), Hawaiian Home Lands, Waiākea Ahupua'a, South Hilo District, Hawai'i Island, TMK: [3] 2-2-47:75 (Figure 1 & Figure 2).

This proposed project, 1.5 acre of the 12.77 acre Kamoleao parcel will consist of the construction of a 1,800 square foot building containing two large separate areas/rooms for a commercial kitchen and classroom. A 12 – foot covered *lānai* or patio will extend-out from three sides (north, south and west) of the building. The structure will be situated on 0.5 acres of land, and will include a driveway and parking area. Adjacent to the building will be a 1-acre community garden. Community and student volunteers will assist in the construction of the KLCRC building and preparation and cultivation of the garden.

The KLCRC commercial kitchen will be used as an enterprise for future sustainability, through kitchen rentals to community members for fundraising activities, food vendors who need a commercial kitchen to process and cook food and for marketing KLCRC valued-added products from the gardens, in addition, the community meetings; cultural and social gatherings; and financial literacy, microenterprise business development and gardening education classes.

In addition to conducting background research into the traditional and historic importance of the project area, in the context of Waiākea Ahupua'a, including results from previous archaeological studies, CSH also made an effort to consult with community members and organizations. A total of four native Hawaiian organizationse were contacted for the purposes of this CIA; two responded at this writing. Efforts at obtaining additional testimonies from community contacts are ongoing.

Background research shows:

1. The State Historic Preservation Division (SHPD) has previously reviewed and approved an Archaeological Assessment (Corbin 2006) which found no historic properties for this proposed site.
2. Waiākea, with its rich natural resources of the forests and the sea, has long been a center of habitation for Hawaiians and is often mentioned in Hawaiian folklore and legends. According to many legends, Waiākea has also been associated with Hawaiian royalty (*ali'i*) since the 16th century and a gathering place for many ceremonies. The rich mountain resources of taro and sweet potato and the abundant marine resources particularly shrimp and fish made Waiākea very valuable to the Hawaiian people. At least three *heiau* (temple) of various sizes and class, stood within Waiākea. Many Hawaiian gods and goddesses frequented Waiākea including Pele, Hi'iaka and Pana'ewa.
3. Based on relatively abundant records of historical documents and oral-historical information, there is little doubt that the proposed project area was once part of an extensive upland agricultural zone, which had more agriculturally productive areas and scattered habitation sites.
4. Previous archaeological research in the immediate vicinity of the proposed project area did not identify any historic properties due to extensive land modifications associated

with urban development. Of particular note is the recent (Rechtman 2009) Archaeological study of the project area. Surveying the entire project area no archaeological resources were identified.

A total of four native Hawaiian organizations were contacted for the purposes of this CIA; two people responded as of this writing. Efforts at obtaining additional testimony from the remaining individuals contacted for this CIA are ongoing. Preliminary community consultation for this project yielded the following results:

1. There are at least three heiau in Waiākea, one being Kapa'ie'ie Heiau, possibly belonging to the *luakini* class.
2. The project area and environs, is featured prominently in Hawaiian folklore, including Kūlilikaua as a god of the thick forest mists of Waiākea, upper Puna and Keauhou and the landscape feature of Pu'u Kūlani which marks the southwest boundary of Waiākea Ahupua'a.
3. OHA recommends that consultation occur with the following individuals and/or organizations who may be willing to share their knowledge of the assessment area with you (see Section 5 of this assessment).

A good faith effort to address the following recommendations may help mitigate potential adverse effects of the proposed project on Hawaiian cultural practices and resources near the project area.

Cultural Surveys Hawai'i recommends that the proposed project will have little impact on Hawaiian traditional cultural practices within the project area. Based on relatively abundant records of historical documents and oral-historical information, there is little doubt that the proposed project area was once part of an extensive upland agricultural zone, therefore it is further recommended that the proposed project incorporate the planting of native Hawaiian plant resources to serve future members of the Panaewa Community and its youth.

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Appendix A Title

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A.1 Section Heading

A.1.1 Sub-section Heading

Appendix B Title

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B.1 Section Heading

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