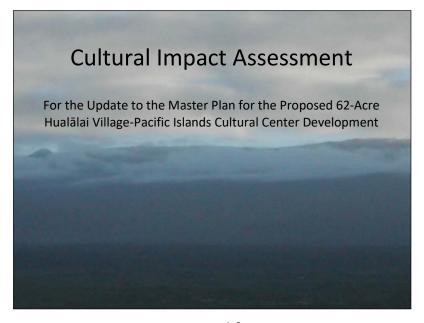
Appendix M

Cultural Impact Assessment for the Update to the Master Plan for the Proposed 62-Acre Hualālai Village-Pacific Islands Cultural Center Development Wai'aha, Kona District, Island of Hawai'i TMK (3)-7-5-10:085; 7-5-17:006 Group 70 International, Inc., 2003 Updated by ASM Affiliates, February 2020

Wai'aha, Kona District, Island of Hawai'i **TMK (3)-7-5-10:085**; **7-5-17:006**



Prepared for:

U of N Bencorp, A Hawai'i Non-Profit Corporation 78-165 Hualālai Road, 2nd Floor Kailua Kona, HI 96740

Draft February 2020

(updated by ASM Affiliates)



Cultural Impact Assessment

Acknowledgement

The stories of this pae 'āina continues on through the pulse of time because there is always someone given the kuleana, the responsibility to insure that the knowledge of our people, of who we are, where we are from, and what distinguishes us as 'Ōiwi, is preserved, perpetuated, and continued for subsequent generations to embrace as their own. My desire is that the work compiled here is pleasing to our ancestors, my hope is that in a small way, this piece positively contributes to that perpetuation of knowledge. With that, it must be acknowledged that the 'ike shared was done so by the true keepers of our cultural heritage, whether recorded in oral traditions or shared in informal wala'au, talk story sessions. I humbly thank those kūpuna, those sources of new growth, that gave of their time and thoughts, but more importantly, entrusted me to share those words here.

Ka pō nui hoʻolakolako, ke ao nui hoʻohemahema- it is the great night that provides and the great day that neglects. This ʻōlelo noʻeau reveals that ancestral knowledge is revealed in our dreams. As part of our individual spiritual interpretation of the natural environment, sometimes this knowledge is either neglected or misunderstood because the individual receiving that knowledge failed to absorb all that was shared by the ancestors. For purposes of this report, this is the *kuleana* that I carry as my own.

'O au iho nō me ka ha'aha'a...

Kāwika McKeague

1 TABLE OF CONTENTS

Secti	<u>ion</u>			<u>Page</u>			
	Cove	er Page					
		nowledge	ements				
		tents	i				
	List of Figures						
	List	of Tables	S	ii			
	App	endices		ii			
1.0	PRO	JECT SUI	MMARY	1-1			
	1.1	Overvi	ew of the Proposed Project	1-1			
	1.2	Cultura	al Impact Assessment Methodology	1-9			
		1.2.1	Review of Known Written Records	1-9			
		1.2.2	Knowledgeable Individuals and Organizations	1-10			
	1.3	Scope	of Work	1-10			
2.0	LEG	ACY IN T	HE LANDSCAPE	2-1			
	2.1	Natura	ll Setting	2-1			
	2.2	Histori	cal Background	2-4			
		2.2.1	Ka Wā Kahiko	2-5			
		2.2.2	Pre-Contact to Early 1800s	2-5			
		2.2.3	Transitions in the Early 1800s	2-7			
		2.2.4	Lands of Waiÿaha	2-9			
		2.2.5	Land Commission Awards and Māhele Claims	2-9			
			2.2.5.1 Wai'aha 1	2-13			
			2.2.5.2 Wai'aha 2	2-18			
		2.2.6	Commission of Boundary Awards	2-20			
		2.2.7	Wai'aha Land Classification Dispute	2-20			
		2.2.8	Post Māhele Period: The Advent of Contemporary Agricultural				
		220	Production				
		2.2.9	Development of Trade, Cattle, and Ranching Industry				
	2.2	2.2.10					
	2.3		al Resources and Practices				
		2.3.1	Ka 'Ano o ka Po'e Kahiko				
		2.3.2	Wahi Pana- Legendary Places				
		2.3.3	Contemporary Uses				
		2.3.4	Previous Studies	2-40			
3.0			ND RECOMMENDATIONS				
	3.1		ary of Findings and Proposed Recommendations				
	3.2	Histori	cal and Cultural Synopsis	3-2			
4.0	REFE	ERENCES	4-1				

Cultural Impact Assessment

LIST OF FIGURES

Figu	<u>ure</u> <u>Title</u>	<u>Page</u>
1-1.	Tax Map Key (3) 7-5-010:085	1-2
1-2.	Hawai'i Territory Survey Map of North Kona, 1928	1-3
1-3.	1865 Hawai'i Registered Map No. 0028 by S.C. Wiltse showing "Plan of Waiaha.I.II"	1-4
1-4.	Aerial photo of project area (courtesy of U of N Bencorp)	1-5
1-5.	Project location map, USGS Kailua quad	1-6
1-6.	Aerial photo of Wai'aha Ahupua'a (project area shown)	1-7
1-7.	University of Nations 2019 master plan.	1-8
2.1.	Area of Kamakahonu, circa 1813-1819 (source: Tr., Fragments of Hawaiian History)	2-8
2-2.	Portion of J.S. Emerson map, circa 1891 (source: Hawai'i State Archives)	2-10
2-3.	USGS, Kailua Quad, 1924.	2-11
2-4.	USGS, Kailua quad, 1928	2-12
2-5.	1853 petition letter regarding lands of Wai'aha 1.	2-13
2-6.	Letter of testimony submitted by Seth L. Andrews	2-14
2-7.	LCA 387 Survey Record for Wai'aha 1.	2-15
2-8	(a). Waipuilani petition letter, 1888	2-21
2-8	(b). Translation of Waipuilani petition letter, 1888	2-22
2-9	(b). Translation of native tenant petition letter, 1888	2-23
2-10	D. Letter from the Commissioners of Crown Lands, 1889	2-24
2-11	1. Coffee plantation in the uplands of Wai'aha	2-25
2-12	2. Ranch land in the upper slopes of Wai'aha	2-27
2-13	3. Gouveia Butcher Shop, Hōlualoa	2-28
2-14	4. Map of Waiʻaha 2, Queen Emma Home	2-28
2-15	5. Portion of Kuakini Wall in project area	2-37
2-16	5. Ahu'ena Heiau from Kamakahonu view	2-37
2-17	7. Hulihe'e Palace in Kailua-Kona town	2-39
2-18	B. Mokuʻaikaua Church	2-39
2-19	9. Site plan from Clark and Rechtman (2003:16)	2-37
	LIST OF TABLES	
<u>Tab</u>	<u>le Title</u>	Page
2-1.	Land Commission Awards in the Ahupua'a of Wai'aha 1	2-16
2-2.	Land Commission Awards in the Ahupua'a of Wai'aha 2	2-19
	Previous studies conducted in the vicinity of the current project area	
2-4.	Archaeological sites recorded during the Clark and Rechtman (2003) study	2-40
	APPENDICES	
A.	List of Organizations and Individuals Contacted in Conducting the Cultural Impact Asses	sment.
В.	Informal Questions in Reference to Wai'aha Cultural Impact Assessment.	

1.0 PROJECT SUMMARY

While the regulatory requirements of Act 50 are not triggered by the proposed project, this Cultural Impact Assessment (CIA) was prepared (in 2003), and recently updated, in accordance with the substantive components in Chapter 343, Hawai'i Revised Statutes, as amended by H.B. No. 2895, H.D. 1 of the State of Hawai'i Twentieth Legislature and approved as Act 50. The purpose of this Act is to "require that environmental impact statements include the disclosure of the effects of proposed actions on the cultural practices of the community and the State," specifically addressing the effects on Hawai'i's culture, and traditional and customary rights.

1.1 OVERVIEW OF THE PROPOSED PROJECT

The U of N Bencorp, a Hawaii 501(c)(2) non-profit benefit corporation, is proposing to develop two of its feesimple parcels (TMK: (3) 7-5-010:085 and (3) 7-5-017:006), as shown in Figure 1-1. The U of N Bencorp financially supports the University of the Nations-Kona (U of N), a Hawaii 501(c)(3) non-profit corporation whose purpose is to educate men and women and prepare them spiritually, intellectually and culturally for Christian service throughout the world, but especially in the Pacific and Asia.

As illustrated in Figures 1-2 and 1-3, the project site is situated in the *ahupua'a* of Wai'aha, in the *moku o loko* (interior district) of North Kona, on the island of Hawai'i. Located on the lower western slopes of Mount Hualālai and bordered by Kuakini Highway on the west, Hualālai Road to the east, the University of the Nations-Kona campus to the north and the Kona Hillcrest subdivision on the south, the U of N project area consist of approximately 62 acres, as shown in Figure 1-4. One of the salient features of the project area is its topography. The property is moderately sloped, ranging from approximately 100 feet above sea level at Kuakini Highway to 325 feet at its highest point, with the steepest slopes on the upper *mauka* side just below Hualālai Road, as illustrated in Figure 1-5 and 1-6

The current proposed expansion of infrastructure within the overall U of N project area includes the development of eight new student dormitories, five classroom buildings, three K-12 school buildings, seven staff housing structures, eleven buildings that will comprise Camp David, two chapels, two Community Emergency Response Team (C.E.R.T.) buildings, a campus services complex, a coffee shop and mini market, a small groups pavilion and additional pavilion, an outdoor event hall, a bus stop, a theater, a discovery center, a sports complex, a Window to the World building, the Lokahi Studios complex, and a network of pedestrian trails that facilitate access between the existing and proposed buildings, parking lots, and recreational areas (Figure 1-7). Additionally, expansion plans for the University of the Nations Kona include the development of a roadway extending *mauka* from Kuakini Highway in the south-central portion of the property (see Figure 1-7).

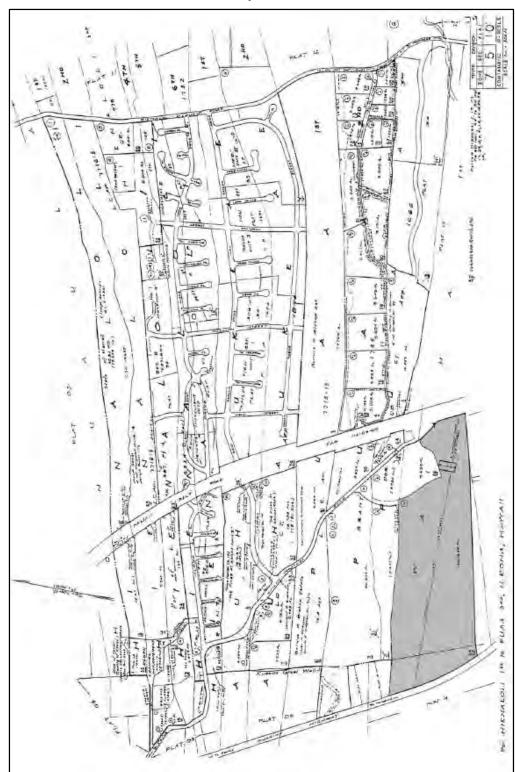


Figure 1-1. Tax Map Key (3) 7-5-010:085.

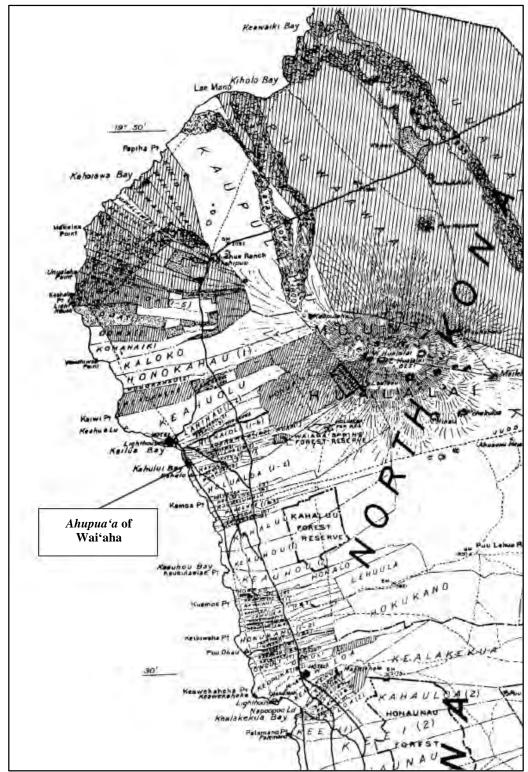


Figure 1-2. Hawai'i Territory Survey Map of North Kona, 1928.

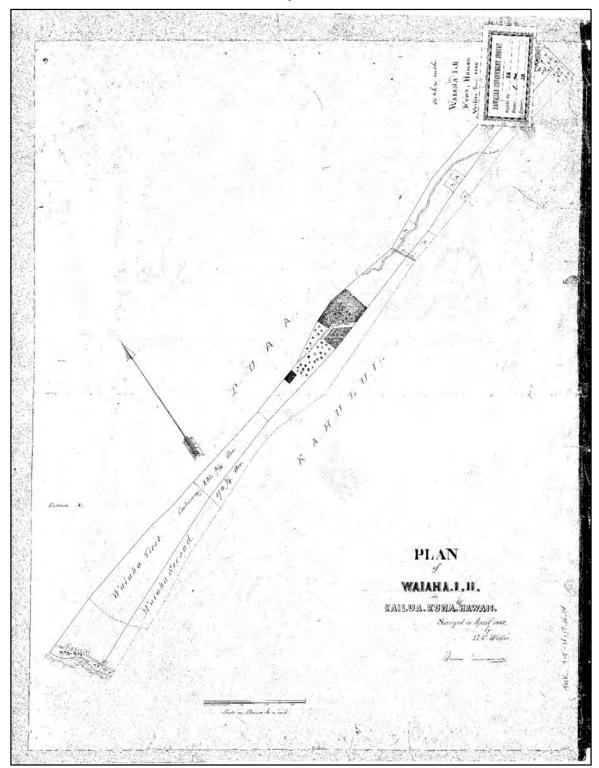


Figure 1-3. 1865 Hawai'i Registered Map No. 0028 by S.C. Wiltse showing "Plan of Waiaha.I.II".

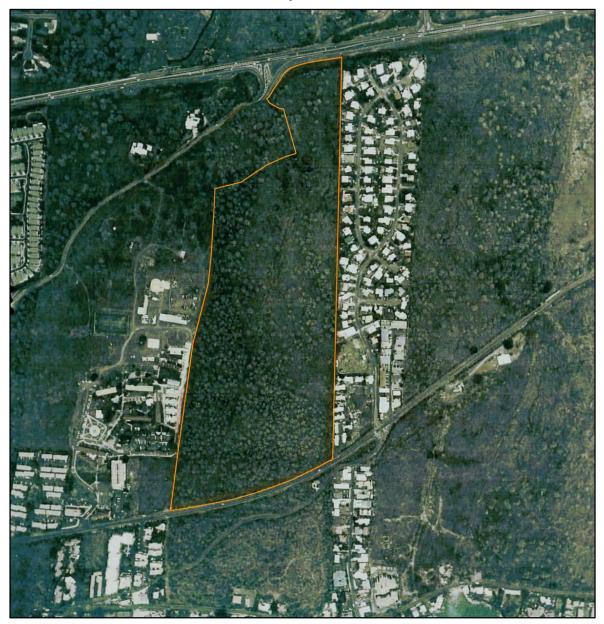


Figure 1-4. Aerial photo of project area (courtesy of U of N Bencorp).

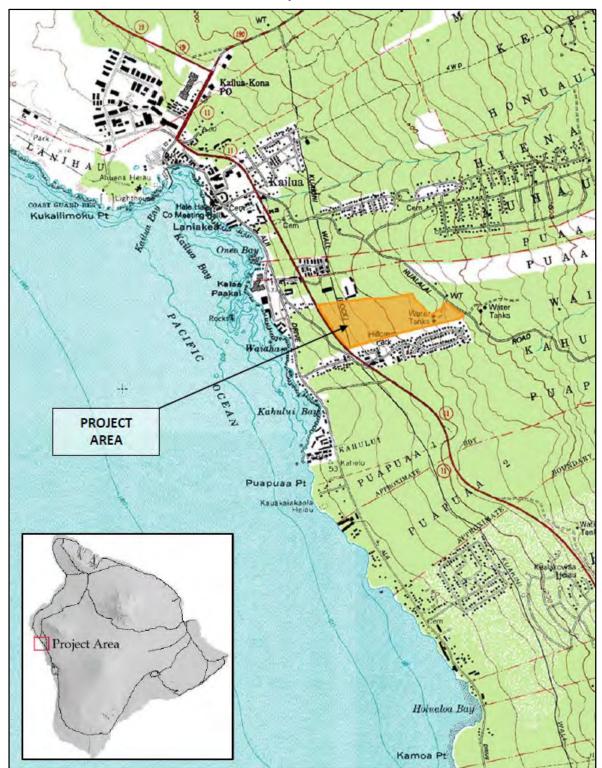


Figure 1-5. Project location map, USGS Kailua quad.



Figure 1-6. Aerial photo of Wai'aha Ahupua'a (project area shown).

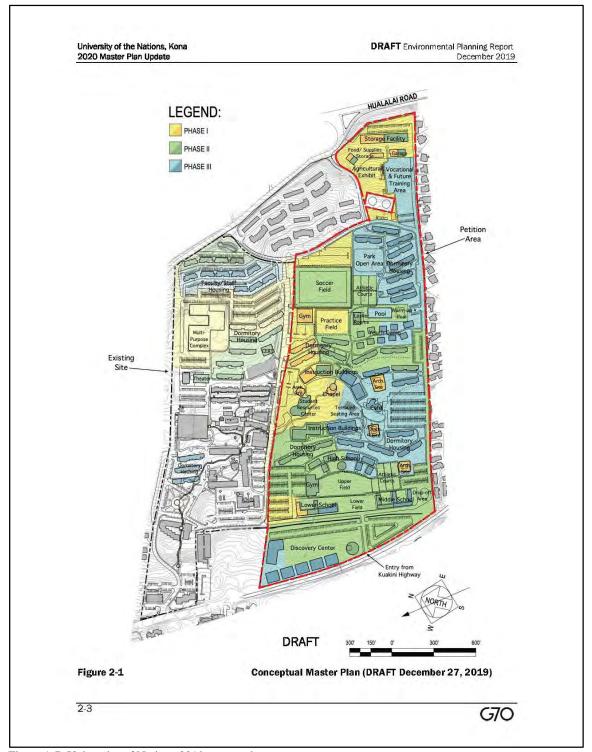


Figure 1-7. University of Nations 2019 master plan.

1.2 CULTURAL IMPACT ASSESSMENT METHODOLOGY

Several references were used in deriving the methodology to conduct this cultural impact assessment. The applied methodology was derived from guidelines and protocols that were provided from two distinctive sources: 1) those mandated in existing regulations, agency guidelines, draft administrative rules, and court decisions; and 2) those mandated from protocol training as taught by recognized $k\bar{u}puna$ (elders) and kumu hula (sources of indigenous and historical knowledge). The methodology for this cultural impact assessment was primarily based upon identifying those project-specific factors that contributed in developing an appropriate level of research scope including:

- a) the physical and cultural characteristics of the specific area that define the landscape, including the levels of land use transition and modification that has occurred;
- b) the existing land use patterns for the specific project area;
- the known cultural properties, features, resources, practices, and beliefs within or associated with the specific project area;
- d) the known or identified individuals and organizations with expertise in the identified cultural practices and beliefs or that possess specific historical and cultural knowledge of the area in question;
- e) the associative linkages between family names, place names, and cultural properties;
- f) the availability of recorded historical and cultural information for the specific area;
- g) the potential effects of the proposed project on known cultural properties, features, resources, practices, or beliefs associated within or to the specific area.

Parameters in defining the level of impact upon the identified cultural properties, resources, practices, and beliefs were established based upon an analysis of information obtained through both informal discussions and formal interviews, as well as a review and summary of previously conducted archaeological work and historical documentation of the project area.

1.2.1 Review of Known Written Records

A review of historical documents, maps, and photographs was conducted at the Department of Land and Natural Resources-State Historic Preservation Division library, the Bernice Pauahi Bishop Museum Archives, the Kona Historical Society, the Hawai'i State Library, the Kailua-Kona Public Library, the State Bureau of Conveyances, the Hawai'i State Archives, the Hawai'i State Survey Office, the City and County of Honolulu Real Property Assessment Division, the County of Hawai'i Planning Office, the University of Hawai'i Hamilton Library, and the library resources of Group 70 International, Inc.

The assessment included a review of Land Commission Awards, Boundary Commission awards, testimonies from the Native and Foreign Register, recorded journal logs, 19th and 20th century Hawaiian language newspapers, recorded historical texts and personal field notes, government letters and memorandums, and archived photographs. The scope of research included a review of archaeological studies, inventories, and surveys previously conducted within or near the project area. The study encompassed a review of known and existing maps that delineated the region of Kona, with an emphasis placed upon examining both the mountainous and coastal geographical features and place names within the Wai aha Ahupua and its adjoining land districts.

An effort was also made to identify various recorded oral traditions of $N\bar{a}$ Kanaka Maoli including $n\bar{a}$ oli (chants), $n\bar{a}$ mele (musical compositions), and $n\bar{a}$ moʻolelo (associative stories) and $n\bar{a}$ kāʻao (legendary accounts) that mentioned specific place names associated with the northern region of Kona District and with the ahupuaʻa of Waiʻaha. Several of these recorded accounts were documented in Hawaiian text, whereupon translations and preliminary interpretative analysis of each composition's kaona (a narrative technique employed by the composer that infuses multi-layers of contextual meanings into the particular chant or mele) was conducted, as appropriate.

1.2.2 Knowledgeable Individuals and Organizations

Various agencies, organizations, community members, and cultural/lineal descendants with ties to Wai'aha were initially contacted to identify those individuals with cultural expertise and knowledge of the project area and the surrounding vicinity. As contacts were established, further inquiry was conducted to assess the primary cultural concerns associated to the Wai'aha Ahupua'a and the potential impacts relative to the project.

Attempts were made to contact several organizations that included the Department of Land and Natural Resources State Historic Preservation Division, the Hawai'i Island Burial Council, the Hawai'i-Pacific Studies Department of the Bernice Pauahi Bishop Museum, the Office of Hawaiian Affairs, the Kona Hawaiian Civic Club, the Kona Historical Society, the QLCC-Kona Division, Kamehameha Schools, as well as several *hula hālau* (traditional educational centers for *hula* practitioners).

Efforts were made to identify those individuals that either grew up in the Wai'aha area or the greater Kona District, and that were potentially knowledgeable of traditional cultural properties, traditional and customary practices, as well as any established contemporary cultural uses near or within the project area.

Within predetermined limitations, a conscious effort was made to contact $n\bar{a}$ $k\bar{u}puna$, $n\bar{a}$ kumu hula and $n\bar{a}$ kua ' $\bar{a}ina$ (literally translated as "the backbone of the land", referring to those individuals or families that have strong associative ties to a specific place) that potentially would be able to share some 'ike (knowledge) of Wai 'aha Ahupua'a.

Upon identifying those individuals that were knowledgeable of the cultural features, resources, beliefs, and practices, pre-interviews were conducted via informal telephone discussions or informal in-person talk story sessions. Depending upon the level of detailed information provided in response to pre-interview questions, a determination was made whether to conduct a formal interview with the individual. Decisions regarding the most appropriate time and manner to conduct the interview were left to the discretion of the interviewee. As determined by the interviewee, appropriate methods of recordation were employed and included note-taking during personal and telephone interviews, copies of email correspondence, and review of personal notes.

To complement the on-going development of discussions with potential knowledgeable individuals, information derived from interviews previously conducted and recorded by other agencies or organizations were included in this report with the consent of the original interviewer. In these specific cases, the interviewees were recognized $k\bar{u}puna$ and as such, a respect for their time and energy was considered paramount in determining if subsequent interviews were warranted. Thus, if the information could be obtained from transcripts that detailed previously conducted interviews, it was determined that only those subject areas requiring further inquiry would be discussed.

A summary of those organizations and individuals contacted during the course of the cultural impact assessment and the informal format of questions is presented in Appendix A and B, respectively.

1.3 SCOPE OF WORK

The following scope of work was proposed in preparing this cultural impact assessment study:

- 1) Conduct a review and summary of historical documentation for purposes of identifying potential traditional cultural properties, features, resources, beliefs, and practices within or near the project area.
- 2) Conduct an analysis of information provided in archaeological reports and known oral traditions of areas near or within the project area as a means of identifying traditional land use activities, cultural resources, and associative practices and beliefs.
- 3) Compile and summarize information obtained from informal discussions and formal interviews with identified knowledgeable individuals regarding historic and traditional practices that are site-specific and inclusive of the *ahupua* a of Wai aha.
- 4) Prepare a report that summarizes the information obtained from research conducted from which an evaluation of the potential cultural impacts related to proposed development area will be provided. As necessary, recommendations to mitigate potential impacts will also be included.

2.0 LEGACY IN THE LANDSCAPE

2.1 NATURAL SETTING

Aloha Kona, hau o Māʻihi 'O ka hoʻokaumaha a ke kēhau 'Oia makani kei hoene Hoene ana i ka pua o ka niu Niu a nā maka i 'ike 'ole ai Aloha au o ka uka o Ahu'ena ē 'O ka 'ena i ala lu'u i ke kai Ho'ā'ike i ke oho 'O Keohokālole o huli mai ā

Love to Kona, land of the Hau of Mā'ihi
Laden down with the drops of dew
There the breezes murmur softly, Murmur
to the blossoms of the coconut
High up, almost out of sight,
Love to the upland of Ahu'ena
So warm that one wishes to dive into the sea
Mention shall be made of the hair
O Keohokālole, turn hither to me
(Pukui 1995, 124-125)

Composed as a *mele inoa* (name song) for Keohakālole, the mother of King David Kalākaua and Queen Lili'uokalani, these words of adoration also exemplify the natural beauty of the surrounding *moku o loko*, the interior land district of Kona on the Island of Hawai'i. The *moku o loko* of Kona is one of six interior land districts that divide up the *mokupuni* (island) of Hawai'i, originally called Lononuiākea, and includes the districts of Ka'ū, Puna, Hilo, Hāmākua, and Kohala. These *moku o loko* were traditionally subdivided into smaller tracts of land called *ahupua'a* that varied in size depending upon the natural resource yields that existed within a particular region and the population density that could be sustained by these yields (Lake: Ms).

The boundary definitions of an *ahupua'a* were traditionally demarcated by $n\bar{a}$ *ahu*, cairns used in ceremony primarily during Makahiki season that included a ki'i, an image of a pua'a, a pig carved out of kukui (Aleurites moluccana, candlenut) and stained with the red-brown hues of the 'alaea (Ocherous earth). These land divisions included both mountainous (mauka) and coastal (makai) resources and were often subdivided into smaller tracts of land with varying degrees of intended use, purpose, shape, and function (Kamakau: 1992 (b), 6-10; Malo: 1951,16-18; Kamehameha Schools: 1994, 4).

In general, traditional land management of these districts was defined as a principle that land should be governed from the sea to the mountains, thus affording to the *ali'i 'ai moku*, the royal land steward and his people a fishery residence at the warm seaside, together with the products of the high lands, such as fuel, canoe timber, mountain birds, and the right of way to the same, and all the varied products of the intermediate landscape and mountainous regions.

The divisions of an *ahupua'a* were called *'ili'āina*, which were divided into *mo'o 'āina* that were further subdivided in *paukū 'āina*. *Kīhāpai* were patches of farmland that were subdivisions of *paukū 'āina*. The various subdivisions of land parcels included the *'ili, 'ili lele, kīhāpai, māla, kō'ele, mo'o, paukū, and kuaiwi*. These were all detached and singular parcels comprised of various resources and situated in different environmental zones. These lands were worked by the *maka 'āinana*, the common residents but there are recorded accounts of royal tenure, including Kamehameha I tending to the fields of Kūāhewa (Malo: 1951, 16).

The district of Kona covers an area that is approximately 60 miles long and whose picturesque beauty is accentuated with the quiet rumble of the ocean surf along the shore, the delicate rustle of gentle breezes through a majestic overhang of coconut trees, and a diversity of flora that are imbued with a multiple palette of colors and fragrances. Given its leeward location on the island, the seasonal patterns of rainfall are heaviest during the summer months, with arid conditions during the winter months.

Due to its vast expanse of land acreage, the district is partitioned into a northern and southern region, with Pu'u Ohau, a cinder cone between Kealakekua and Keauhou, demarcating the boundary (Clark: 1985, 107). As stated in the 'ōlelo no'eau (Hawaiian proverb), Kona 'ākau, mai Keahualono a Pu'uohau, the northern region of Kona is subdivided into 82 ahupua'a whose boundaries are between the areas of Keahualono to the north and Pu'u Ohau to the south (Pukui:1983, 198). As early as the 15th century, the northern district of Kona, particularly between Keauhou and Kailua, served as a major population and political center until the mid-1800s (Van James 1995:86).

The project area is located within the ahupua'a of Wai'aha, which translates to "gathering water" and is noted

Cultural Impact Assessment

in various oral traditions and written records as an area that is abundant with mountainous and coastal resources. However, its only major tributary system is Wai'aha Stream. The headwaters of the stream lie in the upper mountain regions of Hualālai, the majestic volcanic dome that emanated from a series of volcanic eruptions during the Pleistocene Era (1.8 million to 11,000 years ago). Early historical records attest to the issue that although this region was a developing population center, the provision of freshwater was a primary concern:

Kairua [sic], though healthy and populous, is destitute of freshwater, except what is found in pools, or small streams, in the mountains, four or five miles from the shore (Ellis: 1979, 29)

The drinking water of the people was very brackish, from numerous caves that reached below the sea level. The white people, and some chiefs had their water from up the mountain where were numerous depressions in the lava, full of clear, sweet rain water. Twice a week one of our ohuas or native dependents went up the mountain with two huewai, or calabash bottles, suspended by nets from the ends of his mamaki or yoke. These he filled with sweet water and brought home, having first covered the bottles with fresh ferns, to attest his having been well inland. The content of the two bottles filled a five-gallon demijohn twice a week (Winne: 1928, 8).

With only a limited water supply stemming from intermittent rainfall, a series of underground dike systems, and the outflow of the stream, there was an applied approach to water conservation and management to ensure that drought conditions were not prevalent. Thus, to effectively manage the area's water supply, innovative irrigation and dryland agricultural production methods were derived in order to provide a yield of food and water that could sustain the expanding population within the region.

The gentle sloping contours of the Wai'aha uplands were a complement to its level coastal plains, with the former providing an ideal environment for the cultivation of dryland *kalo* (*Colocasia esulenta*, taro). The general soil characteristics of decomposing lava mixed with organic material, provided ideal terrain conditions for planting 'uala (*Ipomoea batatas*, sweet potato), 'ulu (*Artocarpus altilis*, breadfruit), wauke (*Broussonetia papyrifera*, paper mulberry), and *ipu* (*Lagenaria siceraria*, gourd), thereby providing adequate food, clothing, and storage resources. Toward the uplands, open vistas expanded for miles, unveiling a diversified landscape of forest and fruit trees, which included *koa* (*Acacia koa subsp. Koa*), *kou* (*Cordia subcordata*), *hala* (*Pandanus tectorius*, screwpine), and 'ōhi'a 'ai (*Syzygium malaccense*, mountain apple). As shared in the 'ōlelo no'eau, *Kona, mauna uliuli, Kona mauna ulupō*, the lands of Kona are distinguished by its green mountains and dense forest. (Abbot: 1974, 174; Handy, Handy, & Pukui: 1972, 522-523; Pukui: 1983, 199).

For the region of Kona, there are four traditional vegetation zones that characterize the natural landscape from *makai* to *mauka*, which include the *kula*, *kalu'ulu*, 'āpa'a, and 'ama'u zones. *Kula* lands are defined as those that are comprised of "plains, fields, open country, or pasture" lands (Pukui, Elbert: 1986, 178). For the Kona region, *kula* lands were characterized as those lands on the coastal plain and due to prevalent arid conditions, these lands required the design of elaborate irrigation methods to provide an adequate supply of freshwater to its agricultural parcels. The natural environment of the *kula* lands immediately *mauka* of Kailua Bay were described to Reverend William Ellis by the Reverend Asa Thurston when a group traversed through the upland region:

The houses, which are neat, are generally built on the seashore, shaded with coconut and kou trees, which greatly enliven the scene...Small gardens were seen among the barren rocks on which the houses are built, wherever soil could be found sufficient to nourish the sweet potato, the watermelon, or even a few plants of tobacco, and in many places these seemed to be growing literally in the fragments of lava, collected in small heaps around the roots (Ellis: 1979, 31)

The cultivation of the *kula* lands was much more labor-intensive and often did not yield the same quantity or quality in agricultural production as compared to its wetland counterpart. *Kula* lands that were utilized for cultivation but under the management of the *ali'i* (chief) were called $k\bar{o}$ 'ele, hakuone, or kuakua while those of the maka 'āinana (commoner) were called mahina 'ai. A $k\bar{o}$ 'ele was a parcel of land cultivated by the maka 'āinana, but upon which the land and its resources were still retained by the ali'i 'ai moku. A hakuone was similar to a $k\bar{o}$ 'ele with the difference being that the konohiki or haku 'āina, the designated land managers under the aegis of the ali'i 'ai moku, retained these lands. The kuakua was a broad kuāuna or embankment, normally between two wetland parcels with dispersed plants of $k\bar{\imath}$ (Cordyline terminalus, ti) and $k\bar{o}$ (Saccharum officinarum, sugarcane). Various gardens of 'uala and dryland kalo were cultivated in this region. It is noted that the Pā a

Cultural Impact Assessment

Kuakini (wall of Kuakini) is situated along this zone. (Malo: 1951,18; Kelly: 1983, 47).

As a cultural practice, native farmers did not think of breaking up the whole surface of the soil; but only a spot here or there, where the seed, whether it was potatoes, bananas, cane, or any other plant that was planted. Various dry planting methods including pu'epu'e (planting mounds), $m\bar{a}k\bar{a}lua$ (planting in mulched holes), and ' $umok\bar{i}$ (planting taro shoots in small holes made with a stick) were utilized in the extensive cultivation of primary and supplemental crop supplies within the Kona environment (Handy, Handy, and Pukui: 1972, 105-109; Maly: 1999, 13

The characterization of *kalu'ulu* lands was unique to the region of Kona. These lands were part of a cultivated zone, approximately a half-mile in width, which was considered "luxuriant in growth" and comprised of a vast acreage of *'ulu* plantings. As described by Reverend Ellis, these lands were abundant with breadfruit and mountain apple:

...walked toward the mountains, to visit the high and cultivated parts of the district. After traveling over the lava for about a mile, the hollows in the rocks began to be filled with a light brown soil...Here they enjoyed the agreeable shade of breadfruit and 'ōhi'a trees...The trees are elegant in form, and grow to the height of twenty or thirty feet (Ellis: 1979, 31)

In the journal logs of Archibald Menzies, a surgeon and naturalist who was part of Captain George Vancouver's entourage in 1793, another description of the vast agricultural productivity that occurred with this zone was noted:

[we] entered their breadfruit plantations, the trees of which were a good distance apart, so as to give room to their boughs to spread out vigorously on all sides, which was not the case in the crowded groves of Tahiti, where we found them planted on the plains along the sea cliffs. But here the size of the trees, the luxuriancy of their crop and foliage, sufficiently showed that they thrive equally well on an elevated situation. The space between these trees did not lay idle. As we advance beyond the breadfruit plantation, the country became more and more fertile, being in a high state of cultivation...in clearing the ground, the stones are heaped up in ridges between the little fields planted on each side, either with a row of sugarcane or sweet root of these islands. (Menzies: 1920, 74-77).

According to the journal records of Captain Charles Wilkes, of the American Exploring Expedition, the *kalu'ulu* zone of breadfruit trees was located approximately two miles back from the coast:

...a mile back from the shore, the surface is covered with herbage, which maintains cattle, etc... two miles in the interior there is sufficient moisture to keep up a constant verdure. Here, in a belt a mile wide, the breadfruit is met in abundance, above this the taro is cultivated with success (Wilkes: 1845, 4-95).

Although characterized as an arid region, the ' $\bar{a}pa$ 'a zone was the most cultivated of the four vegetation zones. Due to its upper elevation, the area was subjected to more incidental rainfall, providing the necessary irrigation of these upland fields. The Reverend Ellis describes this area as viewed by other traveling congregational members:

The path now lay through a beautiful part of the country, quite a garden compared with that through which they had passed on first leaving the town. It was generally divided into small fields, about 15 rods square, fenced with low stone walls, built with fragments of lava gathered from the surface of the enclosures. These fields were planted with bananas, sweet potatoes, mountain taro, paper mulberry plants, melon, and sugar cane, which flourished luxuriantly in every direction (Ellis: 1979, 32)

The 'ama'u zone is characterized as the upland zone of cultivation that extends above the ' $\bar{a}pa'a$ until the edge of the forest reserve. Within this zone are the $h\bar{a}pu'u$ and 'ama'u ferns, utilized for fabric and in times of famine, the latter as food source. As indicated in the journal records of Reverend Ellis, this area also had more pooled regions of freshwater that were part of the overall tributary system:

Having traveled about three or four miles through this delightful region, and passed several valuable pools of fresh water, they arrived at the thick wood, which extend several miles up the sides of the lofty mountain that rises immediately behind Kairua (Ellis: 1979, 32)

As illustrated in the following 'ōlelo no 'eau, Kona i ke kai mā 'oki 'oki, and Kona, kai malino a 'Ehu, the mirroring

Cultural Impact Assessment

waters of 'Ehu, the coastal waters of Kona, are instilled with innumerable streaks of blue-green hues, indicating the varying ocean depths and channels. The coastal fisheries are abundant with schools of *a'u* (*Istiophoridae*, marlin or spearfish), *ono* (*Acanthocybium solandri*, wahoo), *aku* (*Katsuwonus pelamis*, bonito or skipjack), *ahi* (*Thunnus albacares*, yellow-fin tuna), *mahimahi* (*Coryphaena hippurus*, dolphin-fish), *kāhala* (*Seriola dumerilii*, amberjack or yellow-tail), and *ulua* (*Family Carangidae*, jack crevalle). (Pukui:1955,144; Winne: 1928, 21).

2.2 HISTORICAL BACKGROUND

He inoa e Kaluaikauka Aloha o uka o Waiʻaha ʻOia nahele paoa i ke ala Ke kuia maila e ka wahine i ka laʻi Laʻi malino ihola ke kai o ʻEhu ʻOia kai nene lea i ka mālie Mālie o hiki mai kuʻu aloha Ehe e kuʻu ipo lei e (Boki) A name chant for Kaluaikauka Adoration for the uplands of Waiʻaha It is a fragrant forest Hindered by the woman in the calm Serene and peaceful is the sea of 'Ehu The joyous waters in the quiet repose Peace brought with my love Indeed, my beloved one

Prior to the arrival of Captain Cook in 1778 to the Hawaiian Islands, much of the early documentation of Hawaiian history was preserved in oral traditions, as the early Hawaiians possessed no form of writing. These oratories consisted of chants, poems, riddles, legends, myths, and songs, which were passed down from generation to generation. The cultural significance of the Kona district and the *ahupua'a* of Wai'aha in the conscience of native Hawaiians is illustrated in several oral traditions associated both with the *moku o loko* and the *ahupua'a* as being an area of residence for ruling *ali'i* (often referred to as "chiefs" but are considered living *akua* who bear the *kuleana* of developing and practicing appropriate land and coastal stewardship practices).

In various traditions, the *moku o loko* of Kona is associated with the *akua*, Lono, who is considered to be the source of agriculture, fertility, and abundant rains. The land use practices and cultural protocols associated with the practices of agriculture in Kona have been well documented. As provided in an overview of historical references and native accounts, honorific tributes to the *akua* Lono were a part of the cultural practices within the district that were perpetuated from time antiquity:

The most interesting mythological and legendary materials relating to Kona have to do directly or indirectly with the god Lono...the origin of the Makahiki rain and harvest festival. From Kona, we have the written record of a myth of Kumuhonua (Earth Foundation, 36 generations before Wākea and Papa, who was the first man fashioned by the gods.), whose writer says that Lono was a fisherman and yet ends his story by stating that the events related occurred before men peopled the earth. Lono is credited with introducing the main food plants, taro, breadfruit, yams, sugarcane, and bananas to Hawai'i and also 'awa (Handy, Handy, & Pukui: 1972, 522).

The sweet potato and gourd were suitable for cultivation in the drier areas of the islands...Lono was important in these areas, particularly in Kona on Hawai'i and 'Ulupalakua on Māui. At both of these places, there were temples dedicated to Lono. The sweet potato was particularly the food of the common people. The festival in honor of Lono, preceding and during the rainy season, was essentially a festival for the whole people, in contrast to the war rite in honor of $K\bar{u}$ which was a ritual identified with $K\bar{u}$ as god of battle (Handy, Handy, & Pukui: 1972, 14)

2.2.1 Ka Wā Kahiko

'O Wākea noho iā Papahānaumoku

Hānau o Hawaiʻi, he moku

Hānau o Māui, he moku

Hoi hou 'o Wākea noho iā Ho'ohōkūkalani

Hānau o Molokaʻi, he moku

Hānau o Lāna ikaula, he moku

Liliopū punalua 'o Papa iā Ho'ohōkūkalani

Hoʻi hou ʻo Papa, noho iā Wakea

Hānau o Oʻahu, he moku

Hānau o Kauaʻi, he moku

Hānau o Niʻihau, he moku

He 'ula a o Kaho'olawe

Wākea joins in union with Papahānaumoku

Born is Hawai'i, an island

Born is Māui, an island

Wākea returns to join in union with Hoʻohōkūkalani

Born is Moloka'i, an island

Born is Lānaʻikaula, an island

Papa possesses a jealous rage towards Hoʻohōkūkalani

Returning thereafter to Wākea

Born is Oʻahu, an island

Born is Kauaʻi, an island

Born is Ni'ihau, an island

A reddish hue that is of Kahoʻolawe

In one of the cosmogenic genealogical traditions of native Hawaiians, known as the *Kumulipo*, the creatures of the water are born first, establishing the first tier of ancestral identity. This *Pule Hoʻolaʻa Aliʻi* (the sanctifying prayer of a ruling chief) was first chanted at the birth of Kalaninuiʻāmamao, later renamed Lonoikamakahiki, as a prayer that consecrated the chief through the recital of his genealogical line. Over two thousand lines in length, the *Kumulipo* divides the beginnings of the world in sixteen $w\bar{a}$ (time periods) that unfold the creation of all natural elements through a specific genealogical procession. Understanding and being able to demonstrate the concept and application of the $moʻok\bar{u}\'auhau$ (genealogical line), for an ali'i became of primary importance in establishing social order in traditional times Of direct pertinence to the district of Kona, the *Kumulipo* acknowledges the genealogical lineages of Wākea and Papahānaumoku, in the twelfth and thirteen $w\bar{a}$, respectively. The emergence of these two lineages comes from such a time of antiquity that these ancestral figures are attributed to the cultural identity of being Sky Father and Earth Mother. In multiple variations of this oratory, the union of these two figures results in the birth of Hāloa, considered to be the progenitor of all native Hawaiians thereby providing evidence that all chiefly genealogical lines are descended from the same source.

Various oral traditions recount the lineage of Līloa and 'Ehunuikaimalino, *ali'i nui* (ruling stewards) of Hawai'i Island during the Consolidation Period (1180-1450 A.D.) During this period, the establishment of political consolidation through applied concepts of sovereignty and hereditary rule by particular families was emphasized, thereby providing opportunities for individual islands to become politically, economically, and socially prosperous (Barrere: 1971, 1-5; Kelly: 1983; 1; Kamakau: 1992 (c), 170; Lake: Ms.).

The ascension of Līloa's son, 'Umialīloa, in the mid-15th century, marks the end of the Consolidation Period. It is 'Umialīloa who establishes peace and prosperity on the Island of Hawai'i, as well as instituting and strengthening existing associations with the ruling Maui and O'ahu chiefs, particularly through his marriage with Pi'ikeaapi'ilani, the daughter of a powerful Maui *ali'i*. Through subsequent generations, 'Umialīloa is the progenitor for other *ali'i nui* including the aforementioned Kalaninui'īamamao, the father of Kalani'ōpu'u, who was the father of Kīwala'ō and uncle to Kamehameha I.

Oral traditions recount that it is Kalani'ōpu'u who places the *kapu* for the war *akua* (god) Kūka'ilimoku with Kamehameha instead of Kīwala'ō, which has a significant impact on the socio-political events that lead to the eventual and successful campaign and reign of Kamehameha I. As recorded in journal accounts, during this transitional period of socio-political conflict, the district of Kona continued to have a distinct functional role as a government center for several societal regimes:

Kona lands were the coveted lands among the chiefs...there were calm seas teeming with fish; rolling waves for endless sport at Kealakekua; cooler uplands and fertile regions for sugarcane, fruit, and taro. Protecting mountain slopes made it a land of tropic calm without a trade wind. But always the gentle sea breeze blew over its quiet sunny bays and dry lava shores. In the midst of coconut and kou were nestled many villages of thatched houses, and on the water rode the canoes of many people, canoes hewn in the great koa forest of the mountain slopes. (Winne: 1928, 5).

The primary lesson derived from these cosmogenic and genealogical accounts is that the Hawaiian conception of the world is defined through associative birth with all natural elements derived from an indivisible genealogical line. Thus, the 'āina (often defined as "land" but in its literal translation means "that which feeds") is characterized as an ancestral and familial member, serving as the *kua'ana*, the older sibling whose responsibilities in the traditional 'ohana structure, a distinctive social and familial unit, was to ho'omalu (protect), hānai (nurture and feed), and to *kauoha* (give instruction).

Concomitantly, it is those individuals in the present generation that are given the responsibilities over the *kaikaina*, the younger siblings, who were to *mālama* (care for), *aloha* (extend love to), and *hoʻolohe* (listen intently) to their elders. Therefore, as applicable to traditional land tenure management, the cultural values of *mālama 'āina* and *aloha 'āina* are derived from this established relationship between the individual, the '*āina*, and in native Hawaiian epistemology, the *akua*, the spiritual interpretation, and actualization of the natural environment. Thus, for the area of Kona, agricultural and horticultural methodology were specifically derived with an emphasis on maximizing the survivability of a particular plant species through an applied knowledge of the area's variant terrain, soil, and meteorological conditions with a cultural conscience and value-driven approach (Kame'eleihiwa: 1992, 2; 36).

2.2.2 Pre-Contact to the Early 1800s

Since the time of 'Umialīloa, the abundance of resources made the district of Kona a favorable place of residence for *ali'i* with lands designated for agricultural production, aquaculture cultivation, and habitation. As such, the district became a population center with increased patterns of settlement through Post-Contact. The journals of Reverend Ellis provides population estimates based upon observations of houselots from a journey from Kailua to Keauhou around the early 1800s:

During our walk from Kairua to this place we counted six hundred and ten houses, allowed one hundred or more for those who live among the plantations on the sides of the hills. Reckoning five persons to each house, which we think not far from a correct calculation, the population of the tract through which we have traveled today will be about 3,550 souls. We also passed nineteen heiaus, of different dimensions, some of which we carefully examined (Ellis: 1979, 76)

One of the earliest known records of western contact in the district comes from a journal log of Captain Charles Clerke, who sailed into Kealakekua Bay on February 27th, 1779. As noted by Captain Clerke, the entire district of Kona was considered abundant with fertile land and coastal resources:

At the back of the villages upon the brow of the hill are the plantations of plantains, potatoes, tarrow [sic], sugar canes, each mans particular property is fenced in with a stone wall; they had a method of making the sugar cane grow about the walls so that the stones are not conspicuous at any distance, but the whole has the appearance of fine green fences. These plantations in many places they carry six or seven miles up the side of the hill, when the woods begin to take place which diffuse themselves from hence to the height of the eminence (Beaglehole: 1967, 592).

The journal logs of Archibald Menzies also detail the vast agricultural productivity that extended from Kealakekua to the northern area of Kailua:

We came to a village among the upper plantations, where we took up our residence for the night about nine or ten miles northeast of Kealakekua Bay, and we were surrounded by the most exuberant fields of the esculent vegetables of these islands, which for the industry of cultivation and agricultural improvements could scarcely be exceeded in any country in the world, and we were happy to find their labor here rewarded by such productive crops of these vegetables (Menzies: 1920, 167-168).

The recorded accounts of Reverend Ellis describe the verdant landscape of the surrounding *kula* lands, including those of Wai'aha:

Leaving Kairua, we passed through the villages thickly scattered along the shore to the southward. The country around looked unusually green and cheerful, owing to the frequent rains, which for some months past have fallen on this side of the island. Even the barren lava, over which we traveled, seemed to veil its sterility beneath frequent tufts of tall waving grass, or spreading shrubs and flowers. The sides of the hills laid out for a considerable extent in gardens

Cultural Impact Assessment

and fields, and generally cultivated in potatoes, and other vegetables were beautiful (Ellis: 1979, 78-79).

Within the district of Kona, the extensive acreage of agricultural production is characterized as one of the most significant cultural features. The agricultural field system exemplified the adaptation of traditional native planters to various climatic, terrain, and soil conditions. T.S. Newman provides a description of the framework for the field system in terms of rainfall, elevation levels, and soil conditions:

- 1) Sweet Potato & Wauke Zone: This zone extends from sea level to approximately 500 feet. The annual rainfall in this region is seasonal and averages 30 to 50 inches. Wauke and 'uala are grown in very rocky areas.
- Breadfruit, Sweet Potato, & Wauke Zone: This zone extends from 500 to approximately 1000 feet. The annual rainfall is between 30 to 60 inches. Breadfruit trees are planted with 'uala and wauke interspersed between them.
- 3) Sweet Potato & Dryland Kalo Zone: This zone extends from 1,000 to 2,000 feet with annual rainfall between 60 to 80 inches. No breadfruit trees were planted in this region. Dryland kalo was planted along the upper slope with field boundaries of ti and sugarcane planted in-between each respective field.
- 4) Plantains & Banana Zone: This zone extends from 2,000 to 3,000 feet with annual rainfall between 80 to 100 inches. Bananas and plantains were planted just below the forest line (Kelly: 1983, 73).

Native historians account that Kona was the part of Hawai'i Island that was frequently subjected to hot and dry climatic conditions that often created famine-like periods within the district. To contend with these severe conditions, the *mahi'ai* (farmers) of Kona would carefully develop a cultivation schedule that was based upon an analytical interpretation of lunar and seasonal phases, meteorological conditions, as well as maintaining their spiritual *kuleana* to those religious practices that were essential to producing a prosperous and abundant supply of crops (Abbott, 1974: 32-35; Malo: 1951, 204-206).

2.2.3 Transition in the Early 1800s

Records indicate that after the unification of the islands in 1812, Kamehameha appointed several of his advisors as district *ali'i* to establish jurisdictional oversight in restoring efficient levels of agricultural production on all the islands. The last seven years of Kamehameha's life were in Kailua at his principal residence of Kamakahonu nearby the *heiau* of Ahu'ena, thereby shifting the political and spiritual governance from O'ahu back to Hawai'i Island. Figure 2-1 details the location of Kamakahonu in relationship to the area of Kailua.

After the passing of Kamehameha, the events of the 'ainoa, the expression of "free eating", which symbolized the abolition of the traditional 'aikapu system had transpired in Kailua during the rule of Liholiho, his son, and Ka'ahumanu, his wife who proclaimed herself with the right and political status of the Kuhina Nui.

On October 23, 1819, the American Board of Commissioners for Foreign Missions sent the first company of missionaries to the islands. As described by Reverend Ellis during his tour of the district in 1823, these Protestant missionaries arriving from the Boston headquarters aboard the *Thaddeus* in Kailua began to establish political and social relationships with ruling *ali'i*:

The attention of the American churches was at length directed to the Sandwich Islands...under the name of the American Board of Commissioners for Foreign Missions, the chief seat of whose operations was in the city of Boston, Massachusetts...In the autumn of 1819, a select and efficient Band of missionaries was appointed by this society to establish a mission in the Sandwich Islands.

They landed at Kairua, in Hawaiÿi, on the 4th of February, 1820... (Ellis: 1979: 20-21).

As a result, the early 1800s were becoming a time of political and economic change as illustrated with the abolition of the *kapu* system by Liholiho and Ka'ahumanu and the increasing ventures in commercial activity. The bays of Kawaihae, Kealakekua, and Kailua were evolving as the three major trading centers along the leeward coast of Hawai'i.

Following the death of Kamehameha in 1819, Kaluaikonahale John Adams Kuakini was appointed by the Queen Regent Ka'ahumanu to the position of *kia'āina*, governor for the Island of Hawai'i. Governor Kuakini was the younger brother of Ka'ahumanu and the son of Namahana and Ke'eaumoku. Although trained in the traditional cultural practices of the Kū priesthood, Kuakini was one of the first *ali'i* that mastered the English language, even prior to the arrival of missionaries in 1820.

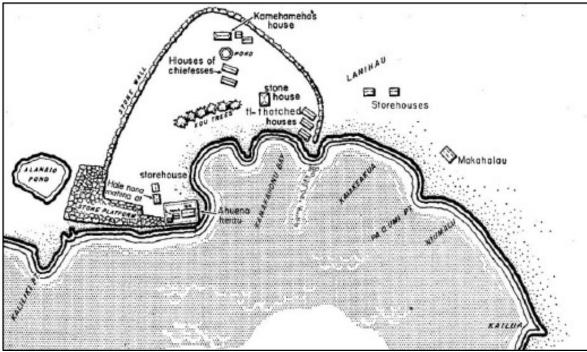


Figure 2.1. Area of Kamakahonu, circa 1813-1819 (source: 'Ī'ī, Fragments of Hawaiian History).

Remaining loyal to the traditional ways of the people but respecting Ka'ahumanu's new affirmation to the Christian faith, Kuakini was considered to be a *pono ali'i* by traditional Hawaiian standards, maintaining a commitment to address the needs of the people while preserving and protecting the natural resources within the Kona region. In 1837, Kuakini built his permanent residence, now known as Hulihe'e Palace as well as began the construction of Moku'aikaua, the first and oldest Christian church in Hawai'i.

During this time, the Pā a Kuakini (wall of Kuakini) was constructed along the entire length of North and South Kona to protect the productive agricultural uplands from being inundated by free-roaming domesticated animals. A stone building was also built by Kuakini to be used as a cotton factory. By 1839, nearly 400 yards of cloth had been manufactured in this cotton mill but production dwindled the following year. Kuakini had a definitive role in shaping the natural and social landscape of Kona by promoting various construction endeavors designed to enhance the quality of life for his people during the time directly following the overthrow of the traditional *kapu* system (Winne: 1928, 17-20; Kame'eleihiwa: 1992, 119). After his death in December 1844, Kuakini bestowed his position of *Kia'āina* and all of his lands to his *hānai keiki*, William Pitt Leleiōhoku. Leleiōhoku's inheritance included Hulihe'e Palace, which was passed to Princess Ruth Ke'elikōlani, upon his death in 1848.

In 1848, during the reign of Kauikeaouli (Kamehameha III), the *Māhele*, a western concept of land tenure was derived into legislation, which created a massive reformation of the existing land system in Hawai'i. It was the first time a system of separation and identification of the associative rights of the king and the chiefs to the land was established. The result of the *Māhele* led to the division and distribution of land, thus creating a system of possession rights and private title to land. During this process, all lands were placed into one of three categories: Crown Lands (for the occupant of the throne), Government Lands, and *Konohiki* Lands (lands for the lesser chiefs and landlords).

2.2.4 Disposition of Wai'aha at the Time of the 1848 Māhele

As shown in Figure 2-2 through 2-4, the lands of Wai'aha were divided into two sections. Wai'aha 1 was the most northern section and comprised of approximately 260 acres, situated adjacent to the *ahupua'a* of Pua'a. Conversely, Wai'aha 2 was comprised of approximately 170½ acres with its southern boundaries adjacent to the *ahupua'a* of Kahului. The northern coastal boundary of the *ahupua'a* was a bay was called Kalaeloa, meaning "the long point." Kā'ilipunahele demarcated the southern coastal boundary. The whole area fronting the cove at Wai'aha, between the point of Kalaeloa on the north and that of Kā'ilipunahele on the south once belonged to Grace Kama'iku'i Rooke, daughter of John Young and Mary Kuamo'o and who later adopted her niece, Queen Emma, who had a strong affinity for the *ahupua'a* of Wai'aha.

Immediately south of Kalaeloa stood a koʻa heiau, called Piopio. Koʻa heiau were either situated near the coastline or in some cases built in the nearshore waters for purposes of stimulating an abundant supply of fishery stock within the coastal region. To the north stood Makakūaliʻi Heiau, which was classified as a hoʻouluʻai, an agricultural heiau while in the middle of the cove stood Maʻo Heiau, a heiau kālua ua, a rain-inducing heiau. A trifle inland from Kaʻilikiʻi Point was the spring called Waiākekea on the upland side of which are a few stones of a house foundation which one report states as the birthplace of Queen Emma. However, according to a recorded oral tradition, Hānau ke aliʻi, Kaleleonālani, composed for Queen Emma shortly after her passing, the 3rd stanza cites that she was born "i ke one o Kakuhihewa," born on the sands of Kakuhihewa, a poetical reference to the island of Oʻahu. As such, there are cultural directives that are associated with the composition of honorific chants, particularly those of royal birth. Thus, this oral tradition supports the argument of other recorded historical journal and newspaper accounts that although the Queen did have family associations within the areas of Kawaihae and Waiʻaha, she was born on Oʻahu (Kanahele: 1999, 8; Pukui: 1955, 48; Kekahuna: Ms.).

2.2.5 Land Commission Awards & Māhele Claims

On March 8th 1848, Kauikeaouli divided his reserved lands into two categories: the King's lands (later to be renamed as the Crown Lands), considered to be his own private lands and the Government lands, intended to be used as public lands. As such, any income derived from the Crown lands would go toward the support of whoever ruled the kingdom. Crown lands could not be sold nor could they be leased for more than 30 years. Conversely, Government lands were made of lands that were set aside as public lands and those lands that were surrendered to the government by *ali'i* instead of being subjected to a possible penalty.

However, all lands that were identified as Crown Lands, Government Lands, and *Konohiki* Lands were "subject to the rights of native tenants." To clarify the definition of these rights, the Privy Council adopted resolutions, which authorized the Land Commission to award fee simple titles to all native tenants who could demonstrate that they either occupied or improved any portion of these lands. Those awarded lands can be characterized as a small representation of the overall population. The majority of awardees were comprised of the local elite that possessed the financial and social authority to sustain further occupancy and usage of the property in question.

Awards issued by the Land Commission to the *maka* 'āinana were and still are called *kuleana* awards or *kuleana* lands. Native and foreign testimonies were provided to verify the legitimacy of an applicant that claimed residency upon a particular piece of land prior to 1839. Although the *maka* 'āinana did not have to pay a commutation fee, they did have to pay for the survey of their awarded parcels. During the *Māhele*, only 14,195 *kuleana* claims were made of which only 8,421 of those claims were awarded. The total acreage of those lands included in these claims equated to approximately 28,658 acres, which consisted of only lands under direct cultivation and did not include lands that were fallow (Kame 'eleihiwa: 1992, 295-297; Chinen: 1958).

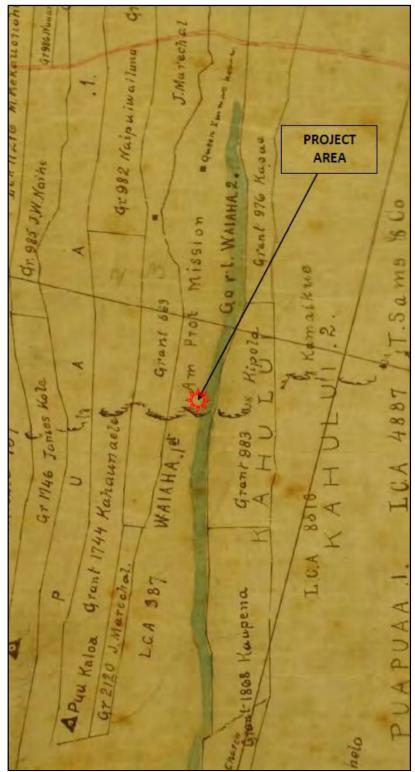
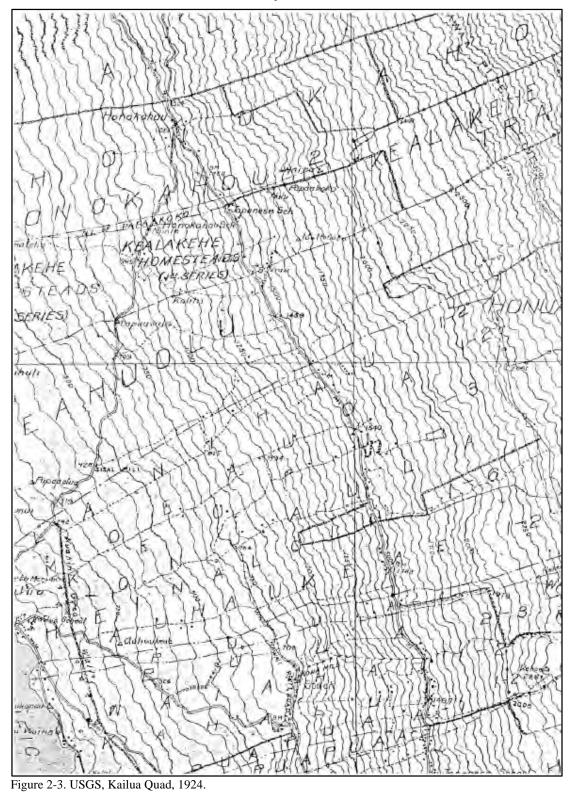


Figure 2-2. Portion of J.S. Emerson map, circa 1891 (source: Hawai'i State Archives).



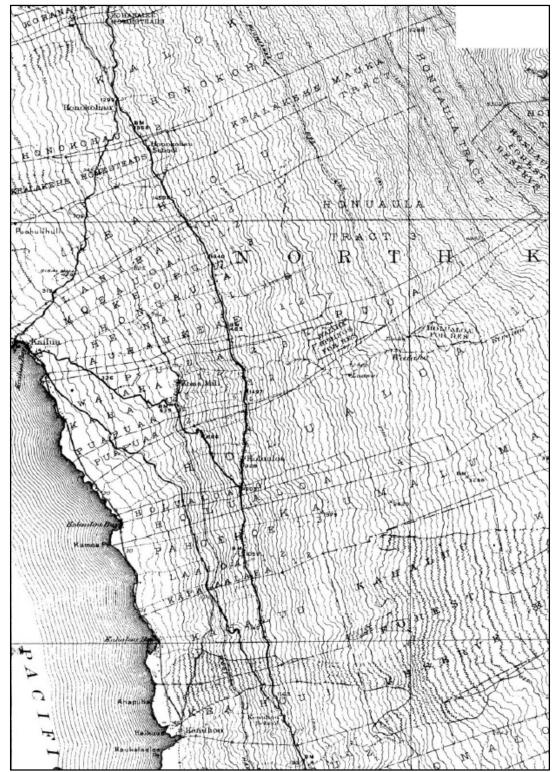


Figure 2-4. USGS, Kailua quad, 1928.

2.2.5.1 Wai'aha 1

In the *Māhele*, the lands of Wai'aha 1 were initially awarded to the American Board of Commissioners of Foreign Missions (ABCFM) as LCA 387 after a petition was sent to the Ministry of the Interior by the ABCFM to request that a commutation for a fee simple title be granted for these lands, as illustrated in Figure 2-5. Within this LCA, lands were also awarded to the ABCFM for the Laniākea estate of Asa Thurston in Hienaloli (5.26 acres), a houselot for Dr. Seth Andrews in Kailua (1.48 acres), the aforementioned lands of Wai'aha 1 (273.50 acres), and lands in Hienaloli (121.80 acres).

July 9, 1853

To His Highness, The Hon. John Young, Minister of the Interior Department of the Hawaiian Government,

May It Please Your Highness,

The undersigned agents of the American Board of Commissioners for Foreign Missions, chartered by the Legislature of the State of Massachusetts in the United States of America in the month of June 1812. Acting for on in behalf of the Said Board at the Sandwich Islands be respectfully to request that His Majesty the King conformably to the laws of His Kingdom will grant to the said American Board to free a commutation of a fee simple title to the lands now in the possession and occupation of those who are and have been missionaries of the Said Board, and which have awarded to the said Am. Board by His Majesty's Board of Land Commissioners, but not in fee simple, and are indicated by the accompanying schedule.

The undersigned beg leave to state that they are encouraged to present this petition and anticipate a gracious reply from the long residence and labor in His Majesty's dominions of the Said Missionaries, and with which He is too well acquainted to render it necessary to reiterate them here and also in view of the fact that many of them are already His naturalized subjects and most if not all with their families expect to continue to reside at the Islands.

Likewise, the strong probability that the Said American Board will soon convey their right title and interest in money of the Said lands and properties to the Said Resident Missionaries and Ex- Missionaries. In view of the above consideration, the undersigned are led to hope that their petition will receive the early and favorable attention of His Majesty's Government and as in duty bound your petitioners will ever pray.

Samuel N. Castle, Amos J. Cooke, Agents of the American Board of Commissions for Foreign Missions Honolulu

July 9, 1853

Figure 2-5. 1853 petition letter regarding lands of Wai'aha 1.

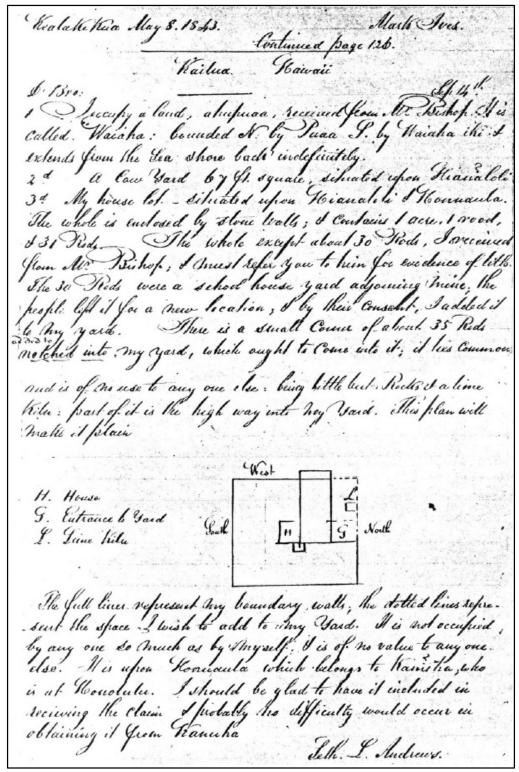


Figure 2-6. Letter of testimony submitted by Seth L. Andrews.

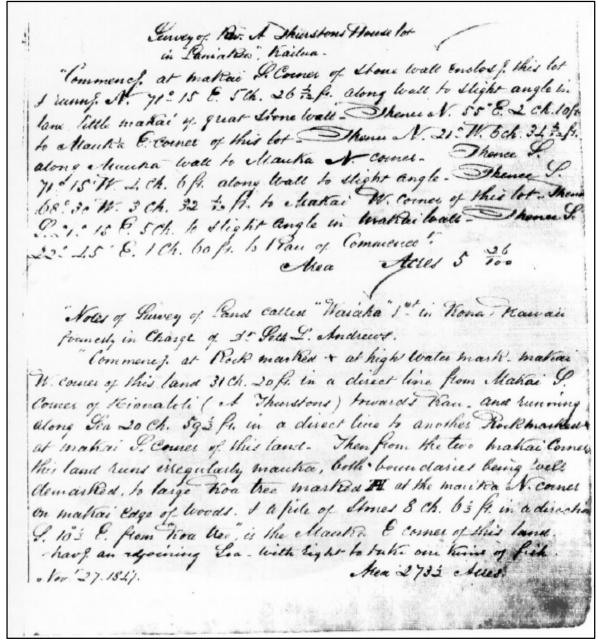


Figure 2-7. LCA 387 Survey Record for Wai'aha 1.

Cultural Impact Assessment

For the lands of Wai'aha 1, several native tenants made claims for lands, petitioning as long-standing residents. The lands that were awarded are detailed in Table 2-1, with a quick synopsis of testimonies, registers, and awards for each respective claimant provided below.

Table 2-1 Land Commission Awards in the Ahupua'a of Wai'aha 1

Awardee	LCA	Royal Patent	Register (N): Native (F): Foreign	Testimony: (N): Native (F): Foreign	Acres
ABCFM	387	1600	(F) 47v.2	(F) 142v.3	281.80
Kalae	7481	3682	(N) 442v.8	(N) 513v.4	1.61
Kalama	7241-B	6672	(N) 419v.8	(N) 514v.4	0.29
Kaulua	7083	N/A	(N) 418v.8	N/A	.16
Lumaawe	6699	N/A	(N) 413v.8	(N) 549v.4	1.00

LCA 7481: Kalae

Native Register: To the Commissioners who quiet land titles of the Hawaiian Islands, greetings and peace to you all. In accordance with the directions, I hereby state my claim as follows: it is in the *ahupua'a* of Wai'aha, '*ili* of Kamuku, and it is 50 fathoms longs by 5 fathoms wide. I have had a right to this land for 10 years, until the present, from the *luna* of the *konohiki*. (442, 26 Jan 1848)

Native Testimony: Lumaawe (*Konohiki*) sworn he has seen in Kamuku 'ili, the land of Wai'aha 1 Ahupua'a.

Section 1		Section 2 – in the kaluulu zone			
Mauka	Moonuiohua 'ili	Mauka	Walaohia well		
Kaʻū	Kamuku 4 land	Ka ' $ar{u}$	Moonuiohua 'ili		
Makai	Land enclosure	Makai	Konohiki		
Kohala	Kamuku 5 land	Kohala	Kamuku 5 land		

1 partially cultivated land section. Land from Lumaawe in 1838, no objections. (22 Dec 1848)

LCA 7241-B: Kalama

Native Register: Greetings to the Land Commissioners: I hereby state my house lot and land claim, which are in the *ahupua'a* of Wai'aha and Kahului in Kailua, Kona. The size of my house lot is 62 fathoms by 22 fathoms, and the size of my land is 240 fathoms by 20 fathoms, that is the size of my *kula* land. The *paukū mauka* of this is 430 fathoms by 20 fathoms. The land was received in the time of Kamehameha I and has been held until the present. Here is my claim for land in the *ahupua'a* of Kahului, which is 240 fathoms by 8 fathoms. I have had this land for 6 years. I have another parcel of land farther *mauka* in this same *ahupua'a*, 800 fathoms by 12 fathoms that is another claim of my mine, which is stated to you. (419-420, 26 Jan 1848)

Native Testimony: Nalawaia sworn he has seen in 'ili land, Halewa'a of Kahului 1 Ahupua'a

Cultural Impact Assessment

Section 1		Section 2	
Mauka	Popolu Pana	Mauka	Kaalapahee Pana
Ka \dot{u}	Kahului 2	Ka \dot{u}	Nalawaia's land
Makai	Papalanui	Makai	Street
Kohala	Waiʻaha	Kohala	Waiʻaha
ahupua'a		ahupua'a	
1 section of la	nd cultivated	1 cu	ltivated section of land
Section 3 Land at \	Wai'aha	Section 4 Pastu	re
Mauka	Keaie well	Mauka	Popolu land
Ka \dot{u}	Kamuku 'ili	Ka \dot{u}	Kamuku land
Makai	Kanakaumalu	Makai	Kapuili land
Kohala	Kapahukauila	Kohala	Kapahukauila
1 section of la	nd cultivated		-
Section 5 House lo	t		
Mauka	Idle Land		
Ka \dot{u}	Idle Land		
Makai	Government		
Kohala	Idle Land		

No fence, Kalama is residing there with one house. Kahului 1 section is from Nalawaia. Old land at Wai'aha since Kamehameha I, from Kalama's wife. House lot had been vacant until Kalama built a house there, no one objected to this day.

Keaweehu sworn they (Keaweehu and Nalawaia) have known in the same way everything concerning Kalama's land. (22 Dec 1848)

LCA 7083: Kaulua

Native Register: Greetings to the Land Commissioners: I hereby state my house lot claim, which is makai in the ahupua'a of Kahului 1 and is 75 fathoms in circumference. Furthermore, my land claim is in the ahupua'a of Wai'aha 1, explained as follows: Seven $k\bar{l}h\bar{d}pai$ are mauka of the cattle fence. Seven $k\bar{l}h\bar{d}pai$ are at kalu'ulu. Six $k\bar{l}h\bar{d}pai$ are mauka of kalu'ulu. Four $k\bar{l}h\bar{d}pai$ are mauka of the ' $\bar{d}pa'a$. Four $k\bar{l}h\bar{d}pai$ are mauka of Waiki'i. This land is bounded by Pu'ukou on the north, by Wai'aha 2 on the south, by the cattle fence on the west, and by Papalanui on the east. A $pauk\bar{u}$ ' $\bar{d}ina$ at Wai'aha 2 named Kanawai. A $k\bar{l}h\bar{d}pai$ measuring 3 fathoms in length by 13 fathoms in width and another, named Kanawai is 61 fathoms in length by 12 fathoms in width. These $k\bar{l}h\bar{d}pai$ are bounded by Kanaihailoa on the north, by Kahului 1 on the south, by Koaie on the west, and by Ililoa on the east. These are my $k\bar{l}h\bar{d}pai$ which have been cultivated from ancient times to the present. (Jan 1848)

Native Testimony: Kalama sworn he has seen:

Section 5	Waiʻaha 2 land		Section 6	Waiʻaha 2	kīhāpai
Mauka		Manohae kīhāpai	Mauka		Konohiki
Kaʻū		Kahului 1 Land	Kaʻū		Kapahukauila
Makai		Idle Land	Makai		Kaulua's land
Kohala		Kamuku Land	Kohala		Kamuku ʻili
Section 7					
Mai	uka	Papalanui land			
Ka'	\bar{u}	Waiʻaha 2 land			
Mak	kai	Waikii			

Interest from Lumaawe in 1839, no objections. Lumaawe, *konohiki*, sworn everything mentioned above is correct. Lumaawe had given the interest, he will not object to him again (514, 21 Dec 1848)

LCA 6699: Lumaawe

Native Register: Greetings to the Land Commissioners. I hereby explain to you that I have land in the 'ili named Puuko. It is at Wai'aha in the land of L.L. Andrews, medical doctor. The adjacent land holders are: on the north, the 'ili of Naihe, on the south, the 'ili of Kaulua. Furthermore, I have a house lot at Wai'aha on the east side of the road along the seashore. Its size is: on the north and south, 13 fathoms, on the east and west, 18 fathoms. Furthermore, I have two kīhāpai within an 'ili named Muku, and the rest of that 'ili is for a woman, Nawaa. (413, 25 Jan 1848)

Native Testimony: Kalama sworn he has seen the place Lumaawe had cultivated (it was wrong to include the whole 'ili of Puukou in his claim, yet he had cultivated an area there, Wai'aha 1 Ahupua'a).

Section 1		Section 2		
Mauka	Maiahuna ea maia	Mauka	Kaalaea kīhāpai kōʻele	
Kaʻū	Waiʻaha 2 land	Ka ʻū	Kameku land	
Makai	Kaneohilunu kiowai	Makai	Moonuiohua	
Kohala	Moonuiohua land	Kohala	Kamuku land	
1 cultivated	d section of land	1 cultivated	d section of land	
Section 3		Section 4		
Mauka	Hanamauloa	Mauka	Nakukui land	
Kaʻū	Waiʻaha 2 land	Ka ʻū	Waiʻaha 2 land	
Makai	Aihiahine land	Makai	Cattle Corral	
Kohala	Moonuiohua 'ili	Kohala	Kamuku 4	
1 partially	cultivated section	1 cultivated	d section	
Section 5 In the	ʻili of Kamuku 3	Section 6 Hou	se Lot Mauka	
Mauka	Koele	Mauka	Idle Land	
Kaʻū	Kamuku 2 land	Ka ʻū	To the uplands	
Makai	Cattle Corral	Makai	Government Rd	
Kohala	Kamuku 4 land	Kohala	Idle Land	

Lumaawe built an enclosure, 2 houses there are for him and he lives there. Old land from Lumaawe's grandparents at the time of Kamehameha I. No has objected to him. Kawaha sworn to have known alike (550, 9 Jan 1849).

2.2.5.2 Wai'aha 2

Upon the death of Liholiho in 1824, Kauikeaouli (Kamehameha III) inherited the rule to the kingdom at the age of 10. Born at Keauhou and raised in 'O'oma, North Kona, Kauikeaouli married Kalama, whereupon they adopted the youngest son of Kekūanaō'a and Kīna'u, namely Alexander Kalanikualiholihokekapu 'Iolani, who would later rule as Kamehameha IV.

For the lands of Wai'aha 2, Kauikeaouli classified these lands as part of the Crown lands, whereupon a protest was filed by local native tenants, requesting a review of the subject lands to be held as Government lands. A review of this dispute is provided in Section 2.2.7 of this report. A review of those awarded land claims reviewed within Wai'aha 2 is provided below and listed in Table 2-2.

Table 2-2 Land Commission Awards in the *Ahupua'a* of Wai'aha 2

Awardee	LCA	Royal Patent	Register (N): Native (F): Foreign	Testimony: (N): Native (F): Foreign	Acres
Kaanehe	7913	5221; 7815	(N) 453v.8	(N) 533v.9	3.12
Kanahele	6402	5214	(N) 413v.8	(N) 555v.4	1.70
Kaniu	7912	7923	(N) 514v.8	(N) 649v.8	1.20
Liawahine	7912-C	N/A	N/A	(N) 649v.8	1.30
Lono	6736	6709	(N) 394v.5	(N) 675v.8	1.20

LCA 6699: Lumaawe

LCA: Greetings to the Land Commissioners: I hereby state my house lot claim. It is makai, in the ahupua'a of Wai'aha 2. The circumference is 91 fathoms. My land claim is in this same ahupua'a, in two 'ili, Pahukauila, and Kamuku 1; however these are not completely cultivated by me. They are bounded on the north by Hanamauloa, on the south by Kamoku 2, on the west by Paupuhi, and on the east by Makaihuliwaa. (453, 31 Jan 1848)

Testimony: Kekipi sworn he has seen in the Pahukauila 'ili, land of Waiÿaha ahupua'a (error in including the whole 'ili in the claim. The place Kaanehe (this is correct) had cultivated.

Section 1		Section 2		
Mauka	Konohiki	Mauka	Konohiki	
Kaʻū	Kauailoa 'ili land		(29 Dec 1848)	
Makai	Cattle Corral			
Kohala	Kanamauloa 'ili			
1 section of land				

LCA 7912: Kaniu

LCA: Greetings to the Land Commissioners: I hereby state my claim for land in the ahupua'a of Wai'aha 2. The name of the 'ili is Kauailoa. This 'ili is bounded by Pahukauila on the north, Haleuwaawaa on the south, Punaio on the west, and Makaihuwaa on the east. (513, 31 Jan 1848)

Testimony: Liawahine & Luma'awe sworn that they have seen his 'ili section of Kanailoa in Waiÿaha 2 ahupua'a that Liawahine had given Kaniu in 1839. (12 Jan 1850)

LCA 7912-C: Liawahine

Testimony: Kaniu and Luma'awe sworn that they have seen his section in the 'ili of Hanamau'uloa, an 'ili of Wai'aha 2 from Kaaea in 1824. No one objected to him. Boundaries are surrounded by land of the konohiki. (12 Jan 1850)

LCA 6736: Lono

LCA: Greetings to the Land Commissioners: I have a small house lot, at Paua'a, and Wai'aha. I am, respectfully, Lono. (393, 4 Feb 1848)

Testimony: Lumaawe, sworn, says he knows the land claimed by Lono in Wai'aha nui, Kona. It consisted of 2 kihapais and a house lot. The house lot is enclosed but there is no house on it (now). Lono is dead and Kepahoni (Cape Horn) is his heir. The two kihapais are bounded on Kohala side by Nawaa's land, mauka by Kaulua's land, makai by witness land. Claimant derived this land from Kaulua in the time of Kuakini and has held it without dispute.

2.2.6 Commission of Boundary Awards

Further documentation of historic land use is found in the records of the Commission of Boundaries, formed in 1862 to define the boundaries of all the *ahupua'a* that had been awarded as part of the *Māhele*. In 1874, the Commission was authorized to certify the boundary divisions. Most of the testimony provided during the certification process was provided by local inhabitants of the lands in question, many of who had also been claimants for *kuleana* during the *Māhele*. The following excerpts provided additional information regarding the land use patterns of Wai'aha, as recorded by the local inhabitants of the time:

A) The Ahupua'a of Wai'aha 2d District of North Kona, Island of Hawai'i 3d J.C.

On this day the 9th day of June A.D. 1874, the Commission of Boundaries for the Island of Hawai'i 3 J.C. met at Kailua, North Kona on the application of J.O. Dominis Acting for Her Highness Emma Leleolani, Queen Dowager, for the settlement of the boundaries of Wai'aha 2d situated in the District of North Kona, Island of Hawai'i. Notice of hearing served by publication in the Hawaiian Gazette of May 20th, 1874 and due notice personally served on owners or agents of adjoining lands as far as known. Present are J.G. Hoapili for applicant etc. also present. Kapuhui and others, all say land belongs to Queen Emma.

B) For Petition see Folio 453 Book A

Note: For Boundaries of Wai'aha 1st See Land Commission Award No. 387. Mission Book 3, page 148. J.G. Hoapili & T.K. Kaai states that the land of Wai'aha 2 is owned by Queen Emma. Mr. Kaai made this statement at different times when I was staying at his in house in August 1873.

C) Testimony

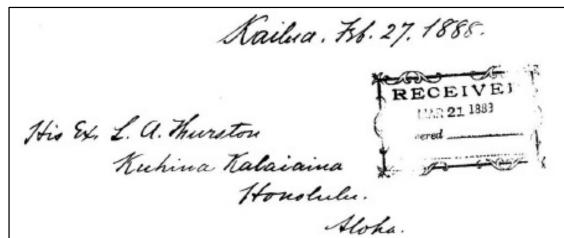
Peahi k. Sworn: I was born at Kohala at the time of Kiholo, when I was married I came here and have lived here ever since. Know the land of Wai'aha, lived there sixteen years. A water hole called Waialipi is on the boundary between the two Waiahas. Wai'aha 2d is bounded by Wai'aha 1st to a banana grove at the edge of the woods called Maiahuna. Wai'aha 2d is bounded on the South side by Kahului. The land is sold to Kapae (k.) from shore to above the Government road. Thence along Kahului 2d to Puuokaloa where I have heard it is cut off by Hōlualoa. Wai'aha 1st was surveyed from shore to Maiahuna and I do not think it extends far beyond there. Wai'aha 2d is bounded makai by the sea. Ancient fishing rights extending out to the sea.

Mahiehie k. Sworn: I was born at Pua'a Kona, at the time of Kumoalii, so my parents told me. I know the boundaries of Wai'aha. Have always lived on these lands, my father told me the boundaries. Wai'aha 2d is bounded on the north side by Wai'aha 1st. Saw Fuller survey Wai'aha 1st from the shore to Maiahuna, the mauka end of it. Kahalui 1st bounds Wai'aha 2 on the south side. A place called Pamakani is the mauka corner of Kapae's land. It is a resting place thence to Papalanui, between Kahului Aupuni and Wai'aha 2d thence to Makahulewaa, an old resting place, thence to Popoula, the mauka corner of Kahului 1st from thence the boundary turns and Wai'aha is cut off by Pua'a to Maiahuna. (as recorded and certified by R.A. Lyman, Commissioner of Boundaries 3d J.C.)

2.2.7 Wai'aha Land Classification Dispute

On February 27th, 1888, a letter was filed with Lorrin A. Thurston, the *Kuhina Kālai ʿāina* (Ministry of the Interior) by Waipuilani, acting spokesperson for a group of native tenants that were opposed to the classification of Wai ʿaha 2 lands as belonging to the Crown lands. A subsequent letter, written by the tenants themselves, was also drafted on the same day. The letters stipulate that since portion of lands were already held in fee simple title for a period of more than 30 years, which according to the civil laws of the time could not then be classified as Crown lands.

The original protest letters are provided in Figure 2-8 and 2-9, with translations provided. As illustrated in Figure 2-10, in a letter dated November 9th to the Minister of the Interior, the lands of Wai'aha 2 were "surrendered" to the government by the Commissioner of Crown Lands, as part of a group of lands omitted during the 1848 *Māhele*.



He mea hachas ian ko ke Li ka Moi delo ana, he aina Li alii o Waiaha 2, ma kailua nei, aka, na kue an, a na horixaixa i na kanaka e noho nei maluna o kela aina o Waiaha 2.

Ehana lakon: Palapala Noi, e like me Ra lakon Palapala Noi e hosili aku hi ma Reia moku, a na horike ia ma ia Palapala noi a na Kanaka ilihune ey, na Kumu o ka lakon noi ana.

Un lawa ora hoviaio avle ke la he aina Li alii, na oki ka pakahe wale ana o na lii.

Me Ka viais, Kan Kanwa

Figure 2-8 (a). Waipuilani petition letter, 1888.

Cultural Impact Assessment

To His Excellency L.A. Thurston, Ministry of the Interior, Honolulu

Greetings. The words of His Royal Highness are an astonishing to me as it relates to the said Royal Crown Lands of Wai'aha 2 at Kailua; but, I protest and attest on behalf of those native tenants who reside on the land of Wai'aha 2.

They have filed in this petition, similar to their own petition to transfer the said lands within this district, duly noting that represented with this petition are those individuals that are destitute and are the motivating factors for this request.

The truth to the matter will suffice: these lands are not of the Crown, and this singular attempt of cheating by His Excellency should be dismissed.

With truth, Your Servant,

J.H. Waipuilani

Figure 2-8 (b). Translation of Waipuilani petition letter, 1888.

2.2.8 Post Māhele Period: The Advent of Contemporary Agricultural Production

In 1899, the Kona Sugar Company established itself with the intent to become an emerging leader in the Hawai'i's sugar industry. In 1901, the plantation built its first sugar mill, which was situated at an elevation of 764 feet in Wai'aha, as shown in Figure 2-3. Under the auspices of the West Hawai'i Railway Co., a railroad was built to haul sugarcane from the upland regions of the Kona District, extending 11 miles to Onouli.

Although the mill site was built near Wai'aha Stream to access the upland spring waters, inconsistent volume rates of water flow created problems in cane processing and production. By 1903, only four years after its formation, the company went bankrupt. James B. Castle bought out the plantation and railroad in 1906. In 1916, the company, renamed the Kona Development Company, was purchased by interested Japanese investors, availing an opportunity for a resurgence in regional cane production. Production continued at the mill site until 1926, marking the closure of sugar operations in Kona (KHS: 1998, 18; Kelly: 1983, 90-91).

In previously conducted interviews with local informants, information was shared regarding the establishment and operation of the Kona Development Company Railroad. Owned by a man named Kondo now buried at the Hōlualoa Cemetery, the Kona Development Company constructed and operated an 11-mile railroad line that extended from Keōpuka, South Kona to the mill site that was situated at Wai'aha. The railroad line was built at approximately the 700- foot elevation level. Stone trestles were constructed as high as 20 feet. Sugarcane was transported from the upland fields to the railway via triggered cables, whereupon it was hauled to the railroad site just above Kailua. By 1918, the Kona Development Company had harvested over 4,500 tons of sugar from approximately 1,553 acres. By 1919, over 2,500 acres of land were being cultivated under contract for the production of sugarcane. (Maly: 1999, 170-172; Kelly: 1983, 91; Thrum: 1917; 83-85).

To the Honorable Lorrin A. Thurston, Minister of the Interior:

With humility:

We, the undersigned, residing at Wai'aha, Kailua, North Kona, Island of Hawai'i, hereby, make known, that we ask that the land of Wai'aha 2, be surveyed and sold, according to the law of A.D. 1884 as follows:

- 2. We have lived a long time on the land of the Chiefs, that is at Wai'aha 1 and Kahului, and whereas, it was stated that five hundred dollars (\$500) was the rent of said lands of the Chiefs, per annum, and we are unable to pay the five hundred per annum, and for that reason will leave the land of the chiefs.
- 3. We, because of having lived a long time on the land of the chiefs above set forth, from the time of our ancestors, therefore, we are deprived of any land, and are living in want.
- 4. We have cultivated on the land of Wai 'aha 2, such as tobacco, coffee, and other growing crops to make living comfortable.

Honorable one, we are glad to report, that the land of Wai'aha 2 aforesaid, is land taken by the chiefs as Crown land, but, with the hope that you will be gracious and look at this:

- 1. The land of Wai'aha 2 is not Crown land, but, it is land belonging to the Government, because, there are some fee simple lands on Wai'aha 2, which were conveyed by the Government, and that is why it is proven to be Government land.
- 2. In about A.D. 1864, there was surveyed way up 100 acres for Kanahele (k), by S.C. Wiltse, a Government land surveyor, and because money was not paid, this is the reason the land was not conveyed to Kanahele.
- 3. What is well known to the natives is that Wai'aha 2 is Government land, and there is now living some persons who know for sure that it is land belonging to the Government.
- 4. By our civil laws, it is shown there, that Wai'aha belongs to the Government, and is not land belonging to the Crown.

Wherefore, we humbly pray to you, that your honor will kindly reply to James H. Waipuilani, our duly elected Committee Chair. Signed by us this 27th day of February, A.D. 1888, at Kailua, North Kona, Island of Hawai'i, Hawaiian Islands:

Respectfully:

Name: Kaililua

Kualo Opio

Makahiehie

Paueono

Pi

Papa

Kapana

Figure 2-9 (b). Translation of native tenant petition letter, 1888.

This sewrender is made however whom the	condition that no claim for mene trofits shall be nade by you agannot the Crown Estate,	and that until the Coque lature can act whom	the rights of tenants holding under leaves	made by the Commessioners of Crown Lands.	Your Exellency	New Coelected Lewands	Jon Hustin	Anis I Sankea	Commercian of Com Lando	It is forther afreed that this act of the	to the above lands, which they now hold		down and	for Fresh	Min I Jankey
Office Commissioners of Grown Rands A orenter of 1899.	Mis Coulency Lorin a Thurston	Monister of Interior	In accordance with the apremin armed at	sette ally between no yesterday and in order to settle the dwhule persawag between no as to lite	to the lands below named, we as Commissioners	of Crown Lands hereby surrender to you the	following lands, we bring advised that we have no legal till to the same:		Manowaropae " " 180 " M. Ledgale	Naiste 2 Nova " " AMBibson Parmai 4075 " MABibson		Napaanea Moloka 2178 . 6 R Dionop	Kulionom in Hona Canu 400 . Marko	Menaw Mannas . 2431 . Al Kawels	Mais hule Kula Man 10.734 - Walluter Legla

Figure 2-10. Letter from the Commissioners of Crown Lands, 1889.

In the early 1800s, coffee plants were originally brought from Brazil and the Philippines and were originally planted in the kona area of Oʻahu but introduced at Onouli, South Kona by the Reverend Samuel Ruggles. (Clark: 1985, 107; Kelly: 1983, 67). In Kona, early foreign settlers, primarily from the United States and Europe, observed that the best production yields of coffee occurred on the leeward slopes of Hualālai and Mauna Loa, within a 1 to 2-mile-wide belt of land located approximately between 800 to 1700 feet above sea level, as shown in Figure 2-11. Between the years of 1836 to 1855, coffee plantations in Hawai'i were primarily under the control of Americans and Europeans. However, between 1860 and 1885, native Hawaiians were tending to a large number of scattered coffee trees, usually grown in small clusters under the shade of *kukui* nut trees. These native farmers would travel by horse to the uplands and pack bags of coffee to be transported back to the coastal area, where they would be laid out to dry.

Between 1885 and 1924, an immigration of Japanese laborers arrived to Hawai'i to help support the expanding industry of sugarcane production. By 1905, most large operation coffee plantations were eventually divided into smaller farms approximately 5 acres each and leased to individual families. Several young Japanese families, upon completing contractual obligations to primary sugar plantations, ventured into the coffee industry as independent farmers. Around the early 1900s, the family of Jindero and Hatsuyo Inaba arrived in Kona, working for the failing Kona Sugar Company. Within a few years, interest in coffee prompted Mr. Inaba to plant some of the first coffee trees in the *ahupua'a* of Wai'aha, following the example of other Japanese immigrants that were striving to establish a livelihood as independent coffee farmers (Goto: 1982, 117-118).

However, interest in the coffee trade expanded to other ethnic groups. During the height of the coffee boom, it is estimated that there were nearly 500 Chinese immigrant laborers working within the Kona region, involved in various phases of the coffee industry including field labor, farm operations and processing, wholesale distribution and merchandising. Likewise, by 1896, there was a large population of Portuguese families settling in the upland regions of Wai'aha and Hōlualoa, working as coffee farmers.



Figure 2-11. Coffee plantation in the uplands of Wai'aha.

Cultural Impact Assessment

The trademark of quality coffee emerging out of Hawai'i into the international market was attributable to several traders and independent farmers, including H.N. Greenwell, who selected only the highest quality of coffee for his market. However, the industry of coffee slumped in the 1860s due to several attributable island economic and socio-political factors but emerged in a boom market in the 1890s, due to vested U.S. and foreign interests that saw potential investment opportunity pending from the overthrow of Queen Lili'uokalani in 1893. American and European capitalists, owners, managers returned with a fervor to stimulate the production and market interest. Some of the American and European owners of coffee plantations in North Kona included Dr. McWayne, F.W. Bartels, George McDougal, N.F. Scott, and Emil Mueller (Goto: 1982, 116-117).

By 1918, coffee was the principal industry of Kona with over 5,000 acres of land dedicated to its cultivation, producing over 2400 pounds of dry coffee per acre annually. During this time, other major industries that defined the economic character of the Kona region included: cattle, sugar, sisal, cotton, oranges, bananas, pineapples, limes, lemons, tobacco, and *koa* lumber.

Commercial crops of cigar tobacco were produced from 1908 to 1913. However, in 1912, the Kona based industry suffered a major loss of two crops and a packing and distribution house to a fire. As a result, there were fewer vested interests by potential investors to assist the promotional years of this industry. In 1916, W.R. Castle purchased the mortgages and creditors' claims against the old Kona Tobacco Co.; Ltd., from H. Hackfield & Co., Ltd., which had been the primary financial backer for the tobacco companies within the region. (Thrum: 1920, 97-99).

2.2.9 Development of Trade, Cattle, and Ranching Industry

With an embayment that provided safe anchor, the town of Kailua developed into a major seaport for exploring captains, traders, and whalers. As time progressed, the town served as a major port-of-call for initial shipping vessels and steam ships. Boat days became an intricate part of the social fabric for Kailua, as it served as a primary means of shipping goods, products, and livestock being cultivated, processed, or raised within the Kona region.

Between 1880 through 1956, local ranchers used Kaiakeakua (Kailua) Bay to move cattle to the Honolulu markets. Prior to the introduction of the tug and barge, traditional transportation of livestock involved the various paniolo on horseback to lasso individual bullocks and pull them into the ocean waters, whereupon the would be lashed to the gunwales of whaleboats that rowed out to deeper water and then hoisted aboard the inter-island steamers.

The development of large parcels of *kula* lands encouraged an expanding import of cattle from Scotland, Australia, and England. In 1918, there were approximately 10 major ranching operations that tended to nearly 14,000 cattle. By the 1920s, three of these ranches emerged along the Kona coast as the primary producers of cattle: the Frank Greenwell Ranch at Honokōhau, Hualālai Ranch, and the Arthur Greenwell Ranch in South Kona. As shown in Figure 2-12, grazing lands were also provided for horses, which were steadily utilized for cattle operations (KHS: 1998, 23; Kelly: 1983, 81).



Figure 2-12. Ranch land in the upper slopes of Wai'aha.

2.2.10 U of N Bencorp Property

Ranching began to evolve in the late 1800s, whereupon introduced cattle were pushed to the uplands where pastures could provide adequate food and water for them. As stated in a previously conducted interview with Joseph Gomes, his father Manuel Gomes, was able to purchase the lands of Wai'aha, including those of the project area, and Kahului from the defunct Kona Development Company. This purchase availed to Gomes the most important source of water at the time from Wai'aha Springs.

According to land records, the project lands in Wai'aha were partially held in title by Thomas Gouveia, local rancher and butcher, and Sam Liftee. Thomas Gouveia used to raise pigs that ran wild within the project area, but had a house and butcher shop in the upper region of Hōlualoa, as shown in Figure 2-13. Ownership was transferred in the names of Josephine Duarte and Sam Liftee. In 1952, the land came under the ownership of Thomas Duarte, who a year later sold the property to Manuel Gomes. By 1959, the pastoral and agricultural lands were then conveyed to Joseph and Margaret Gomes.

Born at Hōlualoa in 1916, Joseph Gomes was the son of Manuel Gomes, who emigrated from Portugal around 1883. After moving from Kaʻū to Kona, Manuel Gomes leased land out of Keahuolū and Honuaʻula and later purchased the lands of Kahalui and Waiʻaha upon the closure of the Kona Development Company in 1927. Manuel Gomes developed these lands as part of his extensive ranching operation. Upon his father's passing in 1959, Joseph Gomes inherited the family's Kona ranch lands.

In a previously conducted interview with Kepā Maly, Mr. Joseph Gomes shared that family lands near and including the project area extended to the upland forest reserve area and comprised of approximately 1500 acres. Approximately 90 acres within the two *ahupua* 'a of Kahului and Wai 'aha were purchased from George Heeches, a German businessman who married a Hawaiian woman from the Kahului area. At any given time, approximately 2,000 cattle were tended to, both in the *mauka* and *makai* portions of the *ahupua* 'a (Maly: 1999, 37-41; Kelly: 1983, 81).

In 1953, the remaining project lands were under ownership by Manuel Gomes and later transferred to Joseph and Margaret Gomes. Both parcels of lands were conveyed to PACU Bencorp, the profit arm for the University of Nations, in August of 2000 via the Gomes Family Limited Partnership.



Figure 2-13. Gouveia Butcher Shop, Hōlualoa.

2.3 CULTURAL RESOURCES AND PRACTICES

2.3.1 Ka 'Ano o Ka Po'e Kahiko

For any cultural landscape, the interpretative analysis of form, function, and role of the inherent cultural mores and traditions must be conducted within the epistemological context and framework of the host culture. As such, a guiding principle that characterizes the cognitive relationship of native Hawaiians with the natural environment is understanding that all natural areas possess *mana*, a divine power that exists because these areas are comprised of specific elements that are personifications or manifestations of the *akua* (spiritual deities).

The presence of the *akua* and '*aumakua* (family guardians) are exemplified through the natural elements of rain, wind, sun, earth, cloud formations, and ocean forms that are intrinsic to a specific geographical space. Ancestral knowledge of the land and its resources was recorded and passed down intergenerationally through the derivation and establishment of place names, as well as the development of several oratory forms. These recorded forms of ancestral knowledge provided insights as to "best management" practices that were employed in traditional times and are perpetuated in contemporary uses through the invocation of identifiable subsistence practices. Further, an inherent aspect of native Hawaiian stewardship in relation to any given area's natural and cultural landscape is the continuance of established cultural values of conservation and management to ensure the sustainability of the area's natural resources for generations to come.

The survivability of traditional Hawaiian practices is defined by understanding, physically and spiritually, the assumed roles of man and the natural elements in creating a sustainable environment. Therefore, in conducting this cultural impact assessment, a review of known and shared traditional cultural knowledge as applicable to understanding the beliefs, customs, and practices that occurred within the *ahupua* 'a of Wai 'aha was conducted.

2.3.2 Wahi Pana – Legendary Places

The concept of "wahi pana" is a cultural interpretation of spatially defined areas. Wahi pana are sacred spaces that include such cultural properties as heiau sites, sacred pōhaku (stones), burial grounds, weather phenomenon, or any natural or geographical features that are associated with deities or significant natural, cultural, or historical events. In native Hawaiian thought, even if the tangible features of a particular cultural property or site no longer exists, there is a distinct imprint that is left upon the natural and cultural landscape, whereby the mana (divine power) of all previous persons and activities associated to a defined space still manifests itself. A review of known wahi pana in the ahupua'a of Wai'aha is provided below.

The Summer Home of Queen Emma and Kamehameha IV

Born on the 2^{nd} of January in 1836, Emma Kalanikaumakaamano Kaleleonālani Na'ea was the daughter of Fanny Kekelaokalani Young and George Nae'a. Through the cultural practice of $h\bar{a}nai$, to formerly take the *kuleana* or responsibility of nurturing and raising a child as your own, Emma was raised by Grace Kama'iku'i and Dr. Thomas Charles Byde Rooke.

Through the *moʻokūʻauhau* of both her natural parents, Emma possessed royal blood that established ties to *aliʻi* from Kauaʻi, Māui, and Oʻahu. Further, her matriarchal grandmother was Kuamoʻo Kaʻōanaʻeha, the daughter of Keliimaikai, Kamehameha's younger brother.

She married Alexander Kalanikualiholihokekapu 'Iolani, Kamehameha IV, on May 18, 1856. Nearly two years later, on May 20, 1858, Emma gave birth to the "Prince of Hawai'i," Albert Edward Kauikeaouli Leiopapa a Kamehameha (Kanahele: 1999, 2-4, 84).

During the autumn of 1861, Kamehameha IV, Queen Emma, the prince and a small staff spent several months at Wai'aha. The king, an asthmatic, was concerned about his health. While there, he established an interest in cotton and coffee, creating a plantation around there home in Wai'aha, located on the mountainside above Kailua (JGC: Ms.).

Near the latter part of June in 1861, the Queen and the Prince traveled with a small retinue to the king's summer home situated approximately 2,000 feet above Kailua, along the slopes of Hualālai, in the *ahupua'a* of Wai'aha. The royal estate was originally built by Governor B.W. Kapeau, and later bought by the Reverend T.E. Taylor, who expanded the facilities in the existing house. Kamehameha IV purchased the home from the Reverend. Serving as a royal retreat, the house was bordered by groves of coffee, orange, breadfruit, and cotton trees, and was considered to be one of the preeminent homes in all the islands, as shown in Figure 2-14. The family returned to Honolulu in December of the same year. (Kanahele: 1999, 134; Rappolt: 1991).

On August 19, 1862, the young Prince became severely ill while residing in Honolulu, suffering from a series of spasm attacks. On August 27th, 1862, the young Prince passed away, with the likely cause of death attributable to acute appendicitis (Kanahele: 1999, 139; Morris: 1994, 80).

In honor of the young prince's death, Emma took the name, Kaleleokalani, meaning the "flight of the royal or heavenly one." However, within approximately 15 months, the Queen would suffer another tragic death of her husband, Alexander Liholiho, who died in her arms on November 30, 1863. The queen took on another new name, Kaleleonālani, the "flight of the royal ones," reflecting the quick events of the passing of both her son and husband in nearly a year's time.

As it was a common cultural practice, a series of *mele makena*, or *kanikau*, lamentation chants were composed in memory of the young royal prince and the reigning king. Drawn from printed sources, some of the most eloquent compositions were those written by Queen Emma herself. In these *mele makena*, several layers of *kaona*, contextualized meaning are hidden in poetic metaphors, which include lines that reflect on the peace and serenity once shared amongst the royal family in Wai'aha and the greater Kona region. In these lamentation chants, the Queen draws attention to the uplands of Wai'aha, with inferences that this place was indeed a place of quiet repose and held a special place in the hearts of both she and her departed loved ones (Kanahele: 1999, 143; Rappolt: 1991, 117; Nogelmeier: 2001, 315).

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Cultural Impact Assessment	
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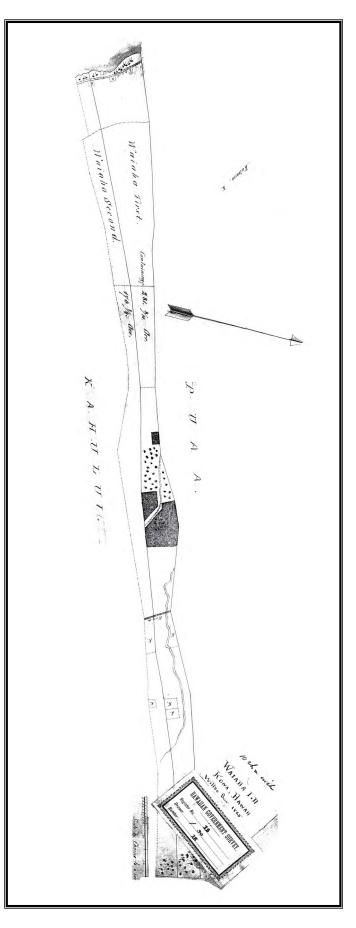


Figure 2-14. Map of Wai'aha 2, Queen Emma Home.

Cultural Impact Assessment

He 'Uhane he alohi kēia nou E Kaleiopapa he inoa He aloha ka 'Uhane i ka hele ana Ka nī 'au ho 'okahi 'a 'ohe lua Kuʻi aku ka lono i nā Paemoku 'O Kalanimealahaÿole ua hele Ka wehena 'ana mai o ke alaula Kahea o Ukali o Hōkūloa E Kalani ē, eia e kō ala 'O ke 'ānuenue pi'o i ka lewa 'O ke alako'i'ula pi'i i ka lani 'Ike e o Kāne me Kanaloa Hoʻouna e mai i kua ua koko I kapa 'a'ahu no ka 'uhane I ka hele hoʻokahi i ke ao ana I ka hora 'ewalu kakahiaka Ka 'akua 'Iolani ka mea aloha Ka uwē kanikau i ke keiki Hoapili o ka la'i e Kailua Huli hāliu nā maka o Kalani Nānāi ka uka la o e Waiʻaha 'Oia uka anoano 'iu'iu 'Auwē ku'u lei, ku'u keiki Ku'u mea minamina la e noho nei

A song of lamentation, a glimmering reflection for you, Kaleiopapa, a name A love for the spirit that has left The only royal child, there is no other The news spread over the archipelago The royal one, with out equal, has passed The opening up of light from early dawn Ukali and Hōkūloa beckon O royal chief, here is your essence The arching rainbow in the sky The path of the rainbow-hued mist climbing to the heavens, recognized by Kāne and Kanaloa Sending the sacred blood rain image The regal attire for the spirit Departing at once in the dawning At eight 'o clock in the morning 'Iolani, the father is the beloved one The lamenting chant for the child A companion of peace, there at Kailua The eyes of the royal one are inclined to turn Gazing upon the uplands of Wai'aha It is a sacred and solitary plain in the uplands Alas, my precious beloved, my darling child My endearing precious one that resides here

As recorded in the archival records, the following excerpt is taken from a lamentation that speaks to her son who has passed on, reflecting on the deaths of both her beloved child and husband. This chant is accredited to Oueen Emalani Kaleleonālani:

Eia kō hoa lā
Me he lama lā ka pua lena o ke koʻolau
Ka palaluhi ma uka o Kaʻako
Ua pua nono i ka wai i Wailua
I kiʻi mai nei e uhoʻi ʻolua e moe i ka uka o
Waiʻaha
E nānā i ke kai māʻokiʻoki

I hoa luana i ke kai o Kailua lā Anuanu Anuanu mai nei ke aloha iā 'oukou Iā lāua ala aku ho'i me ka lei o mākou ā

Aloha 'oe ā

Here is your companion

Like a torch is the yellow blossom of the koʻokoʻolau The golden yellow in the uplands of Kaʻako

It bloomed glowing red in the waters of Wailua

Having fetched you two to return and rest in the uplands of Wai'aha

Observing the sea of many hues

As a companion in leisure there at the sea of Kailua

Chilling is the affection for all of you

For the two of them there and the cherished one of ours, Love to you, ah...

As recorded in *Ka Hoku o ka Pakipika*, a Hawaiian language newspaper, on September 11, 1862, the following excerpt is taken from a chant published under the title, *He Kanikau no Ka Haku o Hawai'i*, was composed and signed by the Queen:

Aloha 'ino kākou i ka lā nui o Kona

'O kona ia o kai malino a 'Ehu lā

'Eu 'ole

Eu ole ke kai, hanu 'ole i ka pohu Mālie iho ihola ke Kona a ke Kailua, La'i aku la, hā ka poki'i a 'Umi ā, 'Umi Pity upon us in the powerful sun of Kona

Kona of the mirroring sea of 'Ehu

Unstirring

Unstirring is the sea, holding its breath in the stillness Those of Kona and Kailua are hushed

Becalmed, the younger siblings of 'Umi, suppressed

Cultural Impact Assessment

As recorded in *Ka Nupepa Kuokoa* on January 2, 1864, the following excerpt is taken from a chant published under the title, *He Kanikau no ka Moi Iolani Kamehameha IV*, and was signed by "Emmalani":

Kuʻu kāne, e kuʻu kāne hoʻi
Kuʻu kāne mai ka lā laʻilaʻi o Kona
Mai ka makani Kēlehua o Lehuakona
'O Kona ia o ke kai malino a 'Ehu ē
Ke ala a 'Ehu, ke ala a kāua i hele ai
I ke ao i ka pō, pōwehiwehi i ka ua Nāulu a

He weliweli, he maluhia i ke aloha iā 'oe 'Iā oe, 'iā oe e Kalopelekei i ka lā ē 'Oia wahi aloha ia

Na wai hoʻi kaʻole o ke aloha ē Nāna nō ē (Kanahele: 1999, 179). My beloved husband, my dear husband indeed My dear one from the peaceful days of Kona From the Kēlehua wind of Lehuakona Oh Kona it is of the mirroring sea of 'Ehu The path of 'Ehu, the path you and I traveled In the day and evening, darkened by the Nāulu rains that storm

Frightful, peaceful in this love for you For you, for you, oh Kalopelekei of the day It is the same adoration Whoever could deny such love For him, indeed...

Kahawai o Wai'aha

One native historical account translated by Kepā Maly, a noted *kumu hula* and cultural and historical specialist, entitled "Ka'ao Ho'oniua Pu'uwai no Kamiki" speaks of how the stream of Wai'aha ran from the uplands of the said *ahupua'a* and flowed into the adjacent ahupua'a of Kahului, providing freshwater for the "taro mounds of the sacred prostration chiefs Kalei'eha, Kapahualo'i, Ka'alaea, who possessed the *kapu* of Lonomakahiki." The *mo'olelo* also refers to a *māla 'uala*, a sweet potato garden that extended from Niumalu to Hinakahua, including the lands of Wai'aha.

Mo'o o Wai'aha

Hali'a was the name for a "magical pool" of water at Wai'aha believed to be inhabited by a water spirit, probably a *mo'o*. The name refers to the restorative and healing powers that these waters possessed. Knowledge shared by knowledgeable sources concur that the waters of Wai'aha Stream was the residence of an *akua mo'o*, whose name is not known (JGC: Ms).

Several associative cultural inferences can be derived with the local residence of an akua moo in the waters of Wai'aha. From a cultural perspective, persons that are deified with specific kinolau (body forms) attributes have to possess a familial relationship to that deity form. Therefore, any honorific tribute to the mo o akua within Waiÿaha would suggest that there is a distinctive genealogical association between this mo o and the initial settlers of Wai'aha. Further, this association and the applied cultural practice of $k\bar{a}k\bar{u}$ 'ana would indicate that there is a definitive set of kuleana that are inherently recognized and perpetuated. Venerated for their ability to sustain the health, welfare, and productive resource yields for all freshwater sources within the Hawaiian islands, akua mo o were and are integral elements of cultural identification and definition for communities like Wai'aha, which exhibit such natural features.

Kona Field System and Kūāhewa Plantation

After Kamehameha's victory over Kalanikūpule's forces at Nu'uanu in 1795, a major rehabilitative effort of reviving agricultural production ensued. During the eminent rule of Kamehameha between 1797 and 1811, a time of peace was introduced and fortified through a conscious application of government interventions designed to return the islands to efficient levels of sustainability and productivity. According to some accounts, the upper slopes of Keōpū, just north of Wai'aha were part of an extensive plantation called Kūāhewa, which belonged to Kamehameha I.

As illustrated in native historical accounts, it was the intent of Kamehameha to ensure that resources were available, and their use appropriately regulated to ensure that sustainable and productive yields were achieved in helping to rejuvenate a native population that had been subjected to years of decline as a result of battle deaths:

'Ōlelo aku 'oia i nā ali'i a me nā maka 'āinana, e mahi nui i ka 'āina i ka 'ai. 'O Kamehameha nō kekahi i hana i ka mahi 'ai; aia kana mahina 'ai ma uka o Kailua ma Kona, a ua hana pū nō 'oia me kona mau 'aialo. I ka pau ana o ke pulu, ua kīpulu 'ia me ka uhi 'ana i ke 'ama'uma'u a pa'a.

Cultural Impact Assessment

Ua 'ōlelo 'ia ho'i, o kēlā māla a Kamehameha i hana ai, ua lō 'ihi nā makahiki o ka waiho 'ana me ka ulu 'ole o ka nāhelehele; 'o ke kalo nō ke lawe mai, ulu nō ka 'ohā, a nunui, uhuki 'ia, ulu mai nō ka wa'e, a pēlā aku; ulu mai nō ka ma'u, a ulu mai nō ka palili, a pēlā no ka mamauea a me ka 'ae. 'O Kūāhewa ka inoa o ua māla nei (Kamakau: Kuokoa, 24 Augate 1867, Helu 38)

He (Kamehameha) instructed both the ali'i and commoners to vigorously tend to the land in farming production. Kamehameha himself tended to some of the farming duties, with his plantation there in the uplands of Kailua in Kona, there he worked together with his royal attendants. When the water was done, a covering of 'ama'uma'u was applied as fertilizer. It was also said, that garden of Kamehameha's tenure, the years of tilling and preventing forest overgrowth were long; taro was taken there; the young taro stalks would grow immensely, and when harvested, they would provide ample supply for subsequent generations of kalo plantings; and so forth, the sprouts would grow, the weak taro root would grow, thereby with the mamauea kalo and the 'ae. Kūāhewa was the name of this garden area.

In 1822, Kuakini restored this unique garden feature, clearing out eight 'ili in two days for the replanting of *kalo*. Other recorded sources highlight that Kūāhewa was indeed a unique and abundant garden system. (Kelly: 1983, 74-74; Desha: 2000, 347-349; 'Ī'ī: 1995, 114).

Burials

In Hawaiian language, the word "kanu" means to plant, to cultivate, and to bury a deceased person. Thus the use of symbolism in language provides an important cultural lesson. When native Hawaiians traditionally buried those that "hala i make", passed on to death, it was the ancestral remains that were "planted" and in turn provide those in the living with spiritual and physical growth. When returned to the 'āina, it is the ancestors that have passed on that become the physical and spiritual nourishment to all that grows and thrives thereby contributing to the sustainability of life itself through their respective death.

The *iwi*, the ancestral remains of a deceased person were guarded, respected, treasured, venerated, loved or even deified by associated family member with the *iwi* of departed chiefs being held in the highest regard. The preservation of an ancestor's *iwi* was a sacred *kuleana* and obligation. The *hūnākele*, the traditional practice of guardianship and concealment of the *iwi* by a close family friend or family attendant, included extensive preparation and inherent protocols (Beckwith: 1940: 274; Rose: 1992, 9; Fornander, 1919: IV:105; Pukui, et al: 1972, 107).

Burial methods and locations varied, depending upon each individual death. One form of burial included the construction of a cist, a stone structure built around or on top of the body. During his travels around the Kailua district in 1823, Reverend Ellis documented the burial practice of burying the dead with the use of stone monuments:

The number of heiaus, and depositories of the dead, which we passed, convinced us that this part of the island must formerly have been populous. The latter were built with fragments of lava, laid up evenly and on the outside, generally about eight feet long, from four to six abroad, and about four feet high. Some appeared very ancient, others had been evidently been standing but a few years (Ellis: 1979, 79).

Traditional Surfing Grounds

The coastal area of Wai'aha is also noted for its strong and prevalent offshore conditions that make for ideal surf conditions. The art of canoe surfing has been documented as taking place at two famous surf spots called Koʻokā, located in the *ahupua'a* of Pua'a just north of Wai'aha, and Koʻokā. Native accounts detail how Kamehameha I and Kaʻahumanu, both expert canoe surfers, had mastered the challenging surf of Huiha:

The surf at Huiha at Honua'ula in Kailua proper, directly above the place where ships anchored and just seaward of Keikipu'ipu'i, was rough when it rose. The land place for this surf was a circle of sand, where the water swirled gently as it went out from the shallows. ('Ī'ī: 1995, 133)

Native accounts detail that in addition to the areas of Koʻokā and Huiha, two other spots called Kāmoa, at Keolonahihi, and Puʻu in Hōlualoa were also famous for surfing.

Cultural Impact Assessment

Keikipu'ipu'i

Constructed as a *luakini heiau*, Keikipu'ipu'i was situated just south of Ho'olulu Cove, along the coastal shores of Honua'ula. This *heiau* was originally constructed sometime between 1797 and 1811, as stated in following recorded account:

Kūkulu a'ela o Kamehameha i nā heiau mōhai kānaka no kona mau akua puni koko, 'oia ho'i 'o Pu'ukoholā a me Mailekini ma Kawaihae, 'o Keikipu'ipu'i a me 'Ahu'ena ma Kailua (Kuokoa: 6 Iulai 1867, 32)

Kamehameha constructed several heiau that required human sacrifice for his surrounding warrior akua, specifically those of Pu'ukoholā and Mailekini at Kawaihae, and Keikipu'ipu'i and Ahu'ena at Kailua

During the latter years of Kamehameha's life, between 1811 and 1819, Kamehameha revisited several of these *heiau* and restored them, as depicted in the following account:

'O ka ho 'ōla i nā heiau o ke akua kekahi hana nui a Kamehameha; ua hana 'oia iā Keikipu 'ipu 'i ma Kailua; he hana nui, me ke kūkulu i nā ki 'i ho 'onani ma waho o ka paehumu; he ki 'i lā 'au 'ōhi 'a i kālai 'ia a 'olē 'olē ka waha, a ho 'olō 'ihi 'ia ke po 'o, a mahiole i luna, a ua ho 'opoepoe 'ia nā 'ūhā me nā wāwae, a ma lalo o nā wāwae, o ka paukū wahie 'oko 'a no ka lō 'ihi, i pa 'a ke kūkulu 'ana i lalo o ka lepo; he mau kanahā ka nui o nā ki 'i o kekahi heiau, a he lau ko kekahi mau heiau nui. Ua kūkulu 'ia 'o waho a ka paehumu a puni 'o ka heiau, a ma ke alanui e hele mai ai a hiki i ka pahu kapu, ua kūkulu lālani 'ia ke ki 'i, a 'o ke ki 'i e kū ana i ka pahu kapu, o Kūkalepa 'ōni 'oni 'oia. (Kuokoa: 24 Augate 1867, 38).

A restoration of heiau for several important akua for Kamehameha took place; he worked on Keikipu'ipu'i at Kailua; a great task with the construction of adorned images outside of the enclosed area of the heiau that was under kapu; 'ōhi'a images with their mouths carved with a wide-mouthed grin, the head prolonged, with a helmet on top; the thighs and feet were rounded, and beneath the feet, a firewood section for the entire length; the post was secured beneath the soil; approximately 40 images were made for these heiau; some in greater numbers for other heiau. These were constructed outside of the enclosure that was kapu and surrounding the entire heiau, and along the path to the sacred drum, the images were posted in rank, with a single image placed erect for the sacred pahu, it being Kūkalepa'ōni'oni. (Kamakau: 1992(b): 145; 'Ī·ī: 1995:121).

Pā a Kuakini

In 1794, Captain George Vancouver presented Kamehameha I with a gift of a young bull, two cows, and two bull calves at Kealakekua Bay, marking the initial settlement of cattle in Hawai'i. However, this introduction of domestic livestock did create some new problems. In response to cattle roaming freely over the landscape, one explanation of the construction and expansion of the Pā a Kuakini was that the wall served as a barrier to prevent cattle from roaming and stampeding down to the coastal residences. Several recorded historical accounts concur that the construction of the Pā a Kuakini occurred in the early 1800s as a response to prevent cattle, goats, and the European boar from damaging the agricultural field systems.

It was not until during the reign of Kauikeaouli (Kamehameha III) in the 1830s, that Mexican- Spanish *vaqueros* (cowboys) were brought to Hawai'i to provide training in the arts of horseback riding, cattle roping, saddle making, and lariat braiding to local ranchers. It was through this training that a new cultural practice, embraced by the paniolo, the Hawaiian cowboy, was born. Further, the use of lava rocks also continued as cultural practice in the construction of holding pens and gates, paddock walls, boundary walls, and shelters during the advent of ranching, as shown in Figure 2-15. (KHS: 1998, 20).

Kamakahonu

Kamakahonu was comprised of an approximately four-acre enclosure, which served as the royal residence for Kamehameha during the last seven years of his life, until he passed away in 1819. Kamakahonu was also the residence of Keaweamahi, the *kahu* of Keaweaheulu. At Kamakahonu, Kamehameha built three thatched houses, including a *hale moe* (sleeping house), a *hale 'āina* (eating house) and a *hale mua* (meeting house for men). The

Cultural Impact Assessment

location of Kamakahonu along the outer edge of the embayment made it ideal for observing canoes that would travel from South Kona.

In preparation for his departure to Honolulu in 1820, Liholiho appointed Kuakini to serve as the *kia ʻāina*, the governor of Hawai ʻi island. Further, on April 4th of the same year, the first company of Congregational missionaries arrived at Kona, landing at Kamakahonu, which served as the residence for Kuakini until 1838. After a shift in political residence from Kailua to Kona in 1855 during the reign of Keʻelikōlani, the area of Kamakahonu began to fall into disarray.

In 1898, the German ship chandlery, H. Hackfield & Co., transformed Kamakahonu into their primary headquarters. The firm was seized by the Alien Property Custodian, a division of the United States Department of Justice, during World War I and auctioned off to a group of Hawai'i businessmen who changed the name to American Factors (Amfac). In 1959, Amfac redeveloped this area, building the first high-rise hotel called the King Kamehameha Hotel (KHS: 1998, 25; Weiner: 1982, 15-17; Clark: 1985, 109; 'Ī'ī: 1995, 120-121).

Ahu'ena Heiau

Ahu'ena, which translates to the "fire-hot mound," was considered to be a *po'okanaka* class, or luakini class heiau built around 15th century, later being utilized by Kamehameha to honor his war *akua*, Kūka'ilimoku. The purpose of constructing such a *heiau* was for either political or government affairs, especially concerning matters of war and often included human sacrifice.

Kamehameha erected *ki'i*, carved wooden images that stood very tall, called *keikipu'ipu'i*, for the various *heiau* he restored within the Kailua district. Depending upon the size of the *heiau*, anywhere between 40 and 400 hundred of these *ki'i* were erected outside the *paehumu*, an enclosure that was *kapu* for only the *ali'i* to reside, and set up leading to the *kapu pahu*. One recorded account describes the sacred drum of Apahou, which was adorned with human teeth, residing at Ahu'ena.

However, after Kamehameha I had settled at Kamakahonu, the heiau was rededicated for the *akua* Lono, considered to be the *akua* for peace, agriculture, and prosperity. During the last few years of Kamehameha's life, the *heiau* site served as his permanent residence and the training center for Liholiho in learning the ways of becoming a *pono ali'i*. However, upon the death of Kamehameha I on May 8, 1819, the *heiau* was destroyed during the abolishment of the *'aikapu* system, which was instigated by Liholiho and Ka'ahumanu.

As shown in Figure 2-16, the heiau was restored in 1975 at a much smaller scale and currently is designated as a National Historic Landmark. The features of the *heiau* include a *hale mana*, which once served as the central spiritual center; a *lele; a 'anu'u* tower and the associative *ki'i*, including that of Kōleamoku, whose was considered to be an *akua* for navigators (Kamakau: 1992 (c), 201-203; Van James: 1995, 105; Crowe & Crowe: 2002, 22; Thrum: 1920, 85; 'Ī-T: 1995,122-123).

Ma'o Heiau

Ma'o Heiau was a small *heiau* situated in the *ahupua'a* of Wai'aha. The *heiau*, classified as a *heiau ho'oulu 'ai*, $h\bar{o}$ 'ulu'ulu ua, or $k\bar{a}$ lua ua, was described as being in poor condition in the early 1900s, with the old government road cutting into its *mauka* edge.

The inner division was comprised of a series of holes in the platform, where was "rain was baked." The consecration of the *heiau ho'oulu 'ai* served to increase the general food supply of the surrounding area. Typically, *Heiau ma'o* were designed to promote rainfall and abundance in time of drought Additionally, *heiau* called Ipuolono were constructed to revive the agricultural productivity of the land. A subset of Ipuolono Heiau was the *houluulu ua*, those *heiau* whose function was to inspire rainfall (Van James: 1995:25; Kamakau: 1992(b): 129, 133; Thrum: 1908, 43-46).



Figure 2-15. Portion of Kuakini Wall in project area.



Figure 2-16. Ahu'ena Heiau from Kamakahonu view.

Cultural Impact Assessment

Hulihe'e Palace

Built by Kuakini in 1838, Hulihe'e Palace served as the principal residence of Kuakini until his death in 1844, whereupon it was used as a royal retreat and hosting venue by several other *ali'i*, including Princess Ruth Ke'elikōlani. In the case of Ke'elikōlani, she resided on the palace grounds but had a traditional *hale* built next to the Palace as her sleeping quarters.

Hulihe'e Palace is approximately 60 feet long by 30 feet wide, with two floors and six rooms. The residence of Hulihe'e was named after Kuakini's brother Ke'eaumoku II. The rooms were originally paneled in *koa*, with much of its ornate and elegant furniture made out of *kou*. As recorded by the Reverend Cheever, the house and its surrounding area was ornately adorned and landscaped:

The Governor's house is a handsome two-story building of stone; the doors, window stools and all the woodwork of beautiful koa. An elegant koa center table of a German mechanic, veneered, finished and jointed with great beauty, adorns the reception room or hall entrance. Two large bedrooms lead out of this, one of which the governor occupies, but the handsome curtained bedstead he leaves to its own repose and sleeps on a raised platform strewn with mats...a tasteful gothic window over the front door and balcony, and in the rear a pillared veranda which shows to advantage in coming into the harbor. Within the same enclosure is a long narrow house for the accommodation of attendants and other chiefs. Nearby under the spreading shade of some fine koa trees, is a boathouse, where a little schooner is on the stocks (Winne: 1928, 19).

After the passing of Kuakini in 1844, the Palace was inherited by William Pitt Leleiōhoku, and later inherited by Keʻelikōlani after Leleiōhoku had passed away in 1848. When Princess Ruth passed away in 1883, Princess Bernice Pauahi Bishop, who passed away a year later in 1884, inherited the property. The residence was sold to King David Kalākaua, whereupon the palace underwent extensive remodeling, transforming the Palace from its original design with the use of native lava rock, coral lime mortar, *koa* and 'ōhi'a wood to more of a structure that was indicative of late 19th Century Victorian architecture, including the addition of gold leaf picture moldings, a stucco exterior, and redwood pillars, as shown in Figure 2-17 (KHS: 1998, 27; Zambuka: 1992, 26; DOH: 1996).

Situated at the southern end of the sea wall near Hulihe'e Palace is Kanuha beach, a small pocket of white sand with a rocky shelf fronting its shores. The beach is named after the Kanuha family, who descended from a line of Kailua *ali'i*, who owned a parcel of property *mauka* of the shoreline.

Moku'aikaua Church

Finished in 1836, Moku'aikaua Church is the original stone edifice that replaced a thatched structure that was destroyed by fire. The old thatched church was one of the preeminent buildings in the Kona district:

In February 1826, Governor Adams and the people of Kona went into the forest, cut and drew down the timber for the large native church. In the summer some thousands were several weeks engaged in erected it and thatching it. Its dimensions were 180 feet by 78 feet, covering an area of 14,040 feet, and capable of containing 4,800 hearers. This new and magnificent temple had its tall strong posts inserted firmly in the rocks of Kailua, its large roof, sides and ends thatched and its corners ornamented, and made an imposing appearance (Winne: 1928, 13).

Although not as immense as its original, the stone church was just as immaculate as its predecessor, measuring at 120 feet by 48 feet, and stands today as the oldest church in Hawai'i. Reverend Asa Thurston worked with the local natives in the design and location of the building, maximizing the natural air ventilation of the nearby ocean breeze. The interior posts of the church were made out of 'ōhi'a, which grows in the upland areas of Hualālai at higher elevations that provide more rainfall. The interior furnishings were constructed out of koa. The walls were constructed with lava rock and coral lime, which was gathered from the nearby coastline. As shown in Figure 2-18, the steeple measures at 112 feet in height, serving as a prominent landmark.

Cultural Impact Assessment



Figure 2-17. Hulihe'e Palace in Kailua-Kona town.

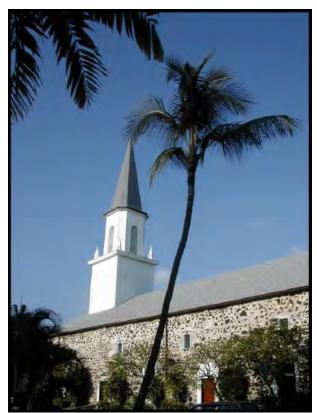


Figure 2-18. Mokuʻaikaua Church.

2.3.3 Contemporary Uses

The development of luxury resorts, vacation timeshares, and condominiums have contributed to the area's growth in the tourism market as a major popular destination in Hawai'i. The Kailua-Kona region serves as the primary venue for a number of competitive sporting events including the Hawai'i International Billfish Tournament, originally held in 1959, and the Ironman Triathlon World Championship, held in Kona since 1981. Coffee still continues to be the major economic stimulus in the agricultural industry within the district.

2.3.4 Previous Studies

There have been a number of archaeological and cultural studies conducted within Wai'aha Ahupua'a in the vicinity of the current project area within the coastal kula areas of Kailua-Kona (Table 1). These studies have included Archaeological Inventory Surveys (AIS), Archaeological Data Recovery projects, subsurface testing, and burial treatment planning. Collectively, these studies have identified a range of both late Precontact and early Historic residential sites, many of which were associated with elite members of Hawaiian society. Also prevalent in the region are features associated with transportation, opportunistic and more formalized agriculture, temporary and permanent habitation, burials, and ceremony. The extent, distribution, and temporal affiliation of archaeological sites within the project area represents a microcosm land use, exemplifying a much broader settlement and subsistence pattern for Kona and any other given region in Hawai'i. Typical agricultural features in Wai'aha have proven to be mostly, but not always, associated with habitation sites within the agricultural fields of the ahupua'a which are generally lumped into the recognized confines of the Kona Field System (a large portion of which is designated as State Inventory of Historic Places [SIHP] Site 50-10-37-6601 and eligible for inclusion in the National Register of Historic Places [NRHP]). Ceremonial sites such as heiau have also been identified within coastal Wai'aha, including Ma'o Heiau, a heiau kālua ua intended for controlling rainfall. Additionally, burial sites are common elements of the cultural landscape within Wai'aha, both in dedicated monument settings and also in settings where they coincide with habitation features.

Collectively, the findings of previous archaeological and cultural investigations conducted within and in the general vicinity of the project area allow for a holistic portrayal of past land use and settlement patterns for Kailua-Kona's *kula* lands and other contributing factors to the overall cultural landscape, including lands that are the focus of this study. Data that has been derived from the existing archaeological record has undoubtedly contributed to the budding corpus of knowledge concerning Precontact use of Kona's *kula* zone. Furthermore, these studies document the gradual yet dramatic shift away from a traditionally rooted subsistence economy to a market economy developed primarily for trade and export of goods, the acceleration of which was exacerbated by privatization of lands subsequent to the *Māhele 'Āina* of 1848. As a result, land use within Wai 'aha, and elsewhere throughout Hawai 'i continued to transform during the Historic Period, fueled by promise held by burgeoning economic ventures such as commercial sugar cultivation and ranching. This shift is reflected in the archaeological record as evidence of stone walls (such as the Kuakini Wall) and cattle enclosures were constructed to ward off free-ranging feral animals that were infiltrating the countryside, resulting in contributing tangible elements to the Historic vernacular landscape of the region.

Table 2-3
Previous studies conducted in the vicinity of the current project area.

Year	Author	Type of Study
1994	Head et al.	Inventory Survey
1996	Walker et al.	Data Recovery
2000	Rechtman	Inventory Survey
2002	Corbin and Rosendahl	Archaeological Assessment
2002	Rosendahl	Burial Site Testing
2002	McKeague	Cultural Impact Assessment
2003	Clark and Rechtman	Inventory Survey
2003	Rechtman	Burial Treatment
2007	Rechtman and Loubser	Data Recovery
2013	Rechtman	Preservation Plan
2019	Barna	Dismantling/Restoration Plan

One of the most proximate studies to the current project area was an AIS (Head et al. 1994) conducted by Paul H. Rosendahl, Inc. (PHRI) for the proposed Ali'i Drive Sewer Project within the *ahupua'a* of Wai'aha 1st and 2nd and Pua'a 2nd and 3rd (see Table 1). As a result of the study, a total of 20 archaeological sites comprised of at least 38 associated features were identified. A variety of formal site types were documented during the study including but not limited to mounds, alignments, walls, enclosures, trails, and lava blisters and caves, and were assigned functional interpretations relating to agriculture, temporary and permanent habitation, transportation, animal husbandry, landscape clearance, and potential ceremonial and burial functions. It was recommended by Head et al. (1994) that data recovery be conducted at 17 of the sites, all of which were assessed as significant under Criterion d and five of which were recommended for preservation. The remaining three sites were recommended for no further work, and it was proposed that although they contained only limited potential with regards to future potential research, they be integrated into the then-proposed landscaping of the project area. It was determined that while construction activities for the then-proposed development did not threaten the integrity of 17 of the sites, three could not be avoided.

In 1996, PHRI conducted data recovery (Walker and Rosendahl 1996) at selected sites identified during the AIS conducted by Head et al. (1994). Data recovery was conducted on three archaeological sites that were purported to be unavoidable during construction activities: Site 15507, two modified outcrops and a terrace; Site 15511, a small lava tube and two additional adjacent caves; and Site 15526, originally assigned as a coral and waterworn cobble-paved area with scattered midden and reinterpreted during the Phase II work as a platform. A total of 20 units (four each in Sites 15507 and 15511 and 12 in Site 15526) were excavated within the data recovery sites. Cultural material and portable remains (e.g. charcoal, *kukui*, gourd, and coconut fragments, marine shell, lithic and volcanic glass debitage and shatter, basalt hammerstones, possible adze fragments, echinoid and coral abraders, a bone awl and pick, fishhooks, shell ornament, historic glass and metal fragments, and a stone pendant) were recovered ealong with varying amounts of mammal, bird, turtle, lizard, rat, mouse, pig, and fish bone. Additionally, and more importantly, human skeletal remains were recovered from all three sites, although the remains recovered from 15511 and 15526 were likely deposited secondarily as a result of natural processes rather than being in an *in situ* context. The human skeletal remains associated with Site 15507, however, were determined to be representative with an articulated individual *in situ* and were ultimately recommended for preservation in place.

In 2000, Rechtman Consulting, LLC conducted an AIS (Rechtman 2000) of a 19-acre parcel *makai* of Kuakini Highway within Wai'aha (see Table 1). Small portions of this property had also been previously surveyed by Head et al. (1994) and data recovered by Walker and Rosendahl (1996) as part of a sewer easement mitigation project. Of the 29 sites previously recorded in the project area, 28 were extant at the time of the Rechtman (2000) study. Of these, one (Site 15525) was reevaluated as non-cultural. Twelve of the remaining sites were assessed as likely deriving from the Precontact Period: two were agricultural in nature (Sites 21992 and 22065), nine were associated with habitation (Sites 15517, 15518, 15521, 15524, 21991, 22067, 22068, 22069, and 22070), and one was a habitation/burial site (Site 15507). Three of the identified sites (Sites 21194, 21196, and 22063) were concluded to date to the late Precontact/early Historic Period and may have been associated with one another. Rechtman (2000) opined that these three sites appeared to be of religious significance, and noted the presence of human remains at one of them (Site 22063). Twelve of the 28 sites dated to the Historic Period, all of which consisted of stone walls or enclosures likely associated with cattle ranching practices during the early to mid-twentieth century.

In 2002, PHRI conducted an Archaeological Assessment (AA) survey (Corbin and Rosendahl 2002) of the project area (see Table 1). As a result of the fieldwork, 28 archaeological sites encompassing 45 features were documented, and a single previously identified site, the Kuakini Wall (Site 6302), was relocated. Other recorded feature types included walls, terraces, mounds, modified outcrops, platforms, enclosures, and lava blister caves. Identified site types were assigned various functions including habitation, ranching, agricultural, and burial. Later that same year, PHRI conducted subsurface testing (Rosendahl 2002) of a sample of possible burial features. Eleven features at eleven different sites were tested for the presence of burials, however this investigation yielded negative results. A small amount of cultural material including a coral abrader, adze fragment, and marine shell fragments were documented during these excavations but appeared to never have been collected.

In 2003, Rechtman Consulting, LLC conducted an AIS (Clark and Rechtman 2003) of the roughly 62-acres of land within the U of N Bencorp project area comprising Tax Map Key (TMK) (3) 7-5-010:085 and (3) 7-5-017:006, which included the current project area (see Table 1). As a result of the study, twenty-five previously unrecorded sites and a single previously recorded site were identified (see Table 2 and Figure 2-19. Site types identified during the study were both Historic and Precontact in nature and were grouped into seven categories: Historic ranching related sites

Cultural Impact Assessment

and boundary walls, Precontact habitation sites, trails, ceremonial sites, game boards, burials, and agricultural sites. As part of the investigation, twenty-two 1 x 1 meter test units (TUs) were excavated at ten sites (Sites 23668, 23670 Feature B, 23672 Features A and B, 23673 Feature A, 23675, 23676, 23677, 23681 Feature A, 23683, 23684, 23685, and at 23686 Features 183, 187, 189, 201, 204, 239, 262, 266, 271, and 297. Subsurface testing of multiple sites/features yielded numerous examples of cultural material including volcanic glass flakes and shatter, charcoal fragments, groundstone, waterworn, and fire cracked basalt, branch and waterworn coral, marine shell (*Cellana* sp., *Conus* sp., *Drupa* sp., *Nerita* sp., *Echinoidea* sp., *Cypraea* sp., *Strombina* sp., *Venus* sp., and *Cantharus* sp.), *kukui* and an unidentified seed, shark teeth, a mostly intact *lūhe'e* lure, as well as dog, rodent and fish bone. Additionally, human skeletal remains identified during excavation of Sites 23683, 23684, and 23685.

All sites were assessed as significant under Criterion d, with eleven being recommended for no further work (Sites 23662 through 23669, 23679 and 23680, and 23682). Four of the sites were also assessed as significant under both Criteria d and e and recommended for preservation (Sites 23681 and Sites 23683 through 23685), one was assessed as significant under Criteria a, c, and d and also recommended for preservation (Site 6302), and ten were recommended for data recovery (Sites 23670 through 23678 and 23686).

Table 2-4

Archaeological sites recorded during the Clark and Rechtman (2003) study.

	Archaeological	sites recorded during the	Clark and Rechtn	nan (2003) study.	
Site No.	Formal Type	Functional Type	Age	Significance	Treatment
6302	Wall	Kuakini Wall	Historic	a, c, d	Preservation
23662	Enclosure	Ranching	Historic	d	No further work
23663	Wall	Ranching	Historic	d	No further work
23664	Wall	Ranching	Historic	d	No further work
23665	Wall	Landscape marker	Historic	d	No further work
23666	Wall	Landscape marker	Historic	d	No further work
23667	Wall	Landscape marker	Historic	d	No further work
23668	Lava blister	Temporary habitation	Precontact	d	No further work
23669	Modified outcrop	Temporary habitation	Precontact	d	No further work
23670	Platform complex	Permanent Habitation	Precontact	d	Data recovery
23671	Platform	Temporary habitation	Precontact	d	Data recovery
23672	Enclosure complex	Temporary habitation	Precontact	d	Data recovery
23673	Platform/enclosure	Permanent habitation	Precontact	d	Data recovery
23674	Platform/enclosure	Temporary habitation	Precontact	d	Data recovery
23675	Platform	Temporary habitation	Precontact	d	Data recovery
23676	Platform	Temporary habitation	Precontact	d	Data recovery
23677	Platform/enclosure	Temporary habitation	Precontact	d	Data recovery
23678	Enclosure	Temporary habitation	Precontact	d	Data recovery
23679	Trail	Trail	Precontact	d	No further work
23680	Trail	Trail	Precontact	d	No further work
23681	Platform/enclosure	Ceremonial	Precontact	d, e	Preservation
23682	Game board	Game board	Precontact	d	No further work
23683	Platform	Burial	Precontact	d, e	Preservation
23684	Platform/enclosure	Burial	Precontact	d, e	Preservation
23685	Platform	Burial	Precontact	d, e	Preservation
23686	Complex	Agricultural	Precontact	d	Data recovery

*SIHP Site numbers are preceded by the state, island, and U.S.G.S. quad prefix 50-10-28-



Figure 2-19. Site plan from Clark and Rechtman (2003:16).

Cultural Impact Assessment

Later that same year, Rechtman Consulting, LLC prepared a Burial Treatment Plan (Rechtman and Ketner 2003) for the three burial sites (Sites 23683 through 23685) identified during the Clark and Rechtman (2003) AIS that were assessed as significant under Criteria d and e (see Table 2 and Figures 2-19 and 2-20). All three sites consisted of square or rectangular stone platforms constructed of 'a' \bar{a} and/or $p\bar{a}hoehoe$ boulders and cobbles. Unlike the other two burial sites which were determined to function solely as burial monuments, Site 23684 consisted of a platform and an attached enclosure, and it was concluded by Rechtman (2003) that the both features may have been utilized for habitation purposes prior to the internment of the deceased individual. As previously mentioned, Site 23683 was also previously subject to burial testing in June 2002 by Rosendahl (2002) but yielded negative results. As part of the fieldwork conducted during the Clark and Rechtman (2003) AIS, a 1 x 1 meter test unit was excavated in the central interior portion of the platform, and the presence of a burial was confirmed. Similarly, single 1 x 1-meter test units were excavated in the central interior sections of the Site 23684 and 23685 platforms yielding identical results. In the case of Sites 23684, pockets of deliberately and carefully cached branch coral were observed throughout the architectural layer, and cultural material (e.g. marine shell, coral, and waterworn pebbles) were observed in strata below the architectural layer. With respect to Site 23685, a possible hearth was identified, the remains of which included a scant amount of cultural materials including various marine shell, wana (sea urchin), and kukui (candlenut; Aleurites mollucana). Immediately following the discovery of human skeletal remains in all three test units, excavation ceased, the remains were stabilized and left in their original positions and were reburied (along with any identified cultural material and/or artifacts) using excavated soils, and the architectural layer was rebuilt on top of the burial as close to original specifications as possible.

The approved burial treatment for Sites 23683, 23684, and 23685 by Rechtman (2003) was preservation in place which would be achieved through the establishment of a minimum 20-foot permanent preservation easement buffer for each respective site. These preservation easements were to be defined by stone walls (traditionally Hawaiian in appearance) constructed of dry-stacked local basalt boulders and cobbles and discretely core-filled with smaller cobbles. It was also suggested that inconspicuously situated narrow gated openings be incorporated into each easement wall to facilitate access for site maintenance and appropriate visitation by cultural and/or lineal descendants, and that appropriate native foliage be planted along the exterior perimeter of the easement walls. An additional 10-foot buffer zone beyond the 20-foot buffer was also set aside as a no construction zone as part of the plan for the installation of three interpretive/cautionary signs, one to be placed immediately adjacent to each respective walled preservation easement. Finally, accepted treatment for the burial sites included a provision provided by Rechtman (2003) for the development and submittal of a formal landscaping plan to the DLNR-SHPD Burial Sites Program for approval, which would lay out measures that the respective sites be cleared of all non-native/non-Polynesian introduced vegetation prior to their reconstruction.

Four years later in 2007, ten of the sites (Sites 23670 through 23678 and 23686) identified during the Clark and Rechtman (2003) AIS (see Table 2 and Figure 2-19) were the subject of data recovery investigations (Rechtman and Loubser 2007) conducted by Rechtman Consulting, LLC. Nine of the sites subject to data recovery were inferred to have been utilized for habitation (four with permanent habitation and five with temporary habitation) and one was associated with agricultural use. All of the sites dated to the Precontact period. The primary objectives of the data recovery were centered around establishing the sequence of Precontact land use within the project area and within the general *kula* lands of Kona, refining the precise nature of data recovery sites associated with habitation, and refining the age estimate and functional interpretation of the documented agricultural features. It was proposed by Rechtman and Loubser (2007) that conducting data recovery of these sites would establish whether or not short-term habitation and associated opportunistic agriculture was indeed followed by recurrent habitation and associated formal agriculture, and finally by more consistent habitation with associated household gardens and animal pens.

The data recovery effort was accomplished by conducting thorough redocumentation of the data recovery sites, the process of which included clearance of vegetation to assess the then-current conditions of the sites, site photography, and the illustration or update of existing site plan views from the Clark and Rechtman (2003) AIS to show the placement of the excavation units, and subsurface testing to determine the presence or absence of buried cultural deposits. As part of the fieldwork, a total of 39 Excavation Units (EU) and 17 Test Units (TU) were excavated. These units ranged in configuration from 1 x 1 meters, 1 x 2 meters, and 2 x 2 meters, and generally, multiple units were excavated into each site. With respect to the habitation sites (Sites 23670 through 23678), there were a total of 22 EU and 7 TU excavated. For Site 23686, 17 EU and 10 TU were excavated. As a result of excavations, a wide assemblage of cultural material was collected including intact and fragmented marine shell (e.g. *Cypraea*, sp., *Conus* sp., *Drupa*

Cultural Impact Assessment

sp., Cellana sp., Morula sp., Isognomon sp., Fimbria sp., Brachiodontes sp., Turbo sp., Nerita sp., Mitra sp., Terebra sp., Cantharus sp., Chama sp., Venus sp., Nassarius sp., Strombina, sp., Serpuloris variabilis, Thais sp., Cymatium sp., Fimbria sp., and an unidentifiable bivalve fragment), echinoderms, a crustacean fragment, and both branch and waterworn coral pieces. Lithic assemblages identified during fieldwork included worked and unworked volcanic glass flakes and shatter, fire-cracked basalt, basalt flakes, waterworn and groundstone basalt fragments. Additionally, a variety of faunal remains were recovered including worked and unworked bones (e.g. rodent, pig, dog, cow, bird, and some which were unidentifiable) as well as bird, fish, dog, cow, and shark teeth. A variety of portable remains (artifacts) were also recovered during data recovery excavations including coral abraders, intact and fragmented echinoderm abraders, a fine-grained basalt adze fragment, a lūhe 'e lure, an awl manufactured from unidentifiable materials, a bone awl, a .166 lead pellet, an iron horseshoe nail, a steel nail, a steel nut, rusted iron fragments, and fragments of brass buttons. Fragments of kukui (candlenut; Aleurites moluccana) and an unidentifiable seed and nut were also recovered during excavations, as were numerous charcoal samples: 17 of which were submitted for radiocarbon assaying.

Following the synthesis of field and laboratory results it was proposed by Rechtman and Loubser (2007) that the data recovered sites were collectively representative of four relatively arbitrary time periods which they assigned as phases A through D, each were interpreted as more extensive than the one preceding: Phase A from A.D. 1400 to A.D. 1460, Phase B from A.D. 1460 to A.D. 1580, Phase C from A.D. 1580 to A.D. 1680, and Phase D from A.D. 1680 to A.D. 1850. Phase A occupation encompassed Site 23686 Features 247, 293, and 294; Phase B occupation pertained to Site 23676, Site 23673 Features A and B; and Site 23671; Phase C related to Site 23686 Features 250, 254, 282, and 289; possibly Site 23674; Site 23672 Features A and B; and potentially Site 23675, Site 23670 Features A, B, and C, Site 23678, Site 23677 Features A and B, Site 23686 Feature 251, and potentially also the *kuaiwi* associated with Site 23686.

In 2013, Rechtman Consulting, LLC prepared a Preservation Plan (Rechtman et al. 2013) for two of the sites (see Table 2 and Figures 2-19 and 2-10) initially documented during the inventory survey conducted by Clark and Rechtman (2003). The first preservation site, a 340-meter-long section of the Kuakini Wall (Site 6302), was likely constructed during Governor Kuakini's administration (A.D. 1820-1844), coinciding with the latter portion of Phase D occupation previously hypothesized by Rechtman and Loubser (2007). Initially, the wall served to protect cultivated agricultural fields *mauka* of the wall from feral animals, however Rechtman (2013) opined that the function of the Kuakini Wall likely transformed over time, and in later years served primarily to protect coastal settlements situated *makai* of the wall. Site 6302 was assessed by Clark and Rechtman (2003) as significant under Criteria a, c, and d, and was determined to be eligible for listing (but is not formally listed) in the National Register of Historic Places (NRHP). Preservation measures were centered primarily around avoidance and protection (conservation) of the site, however the plan set forth by Rechtman (2013) also included provisions for stabilization/restoration, dismantling/restoration, and the installation of interpretive/cautionary signage at intervals around the twenty-foot permanent preservation easement buffer.

The second preservation site consisted of an agricultural *heiau* (shrine; Site 23681), a traditional ceremonial site referred to as *heiau hoʻoūluulu ʻai* or *heiau hoʻoūluulu ua* where Hawaiians would conduct rituals to ensure agricultural fertility and/or to induce rain. The proposed permanent preservation measures for Site 23681 were avoidance and protection (conservation) which was to be achieved through the establishment of a twenty-foot preservation easement buffer. Rechtman et al. (2013) recommended that this permanent buffer be marked by a stone wall (traditionally Hawaiian in appearance) constructed of dry-stacked local basalt boulders and cobbles and discretely core-filled with smaller cobbles, and recommended that an inconspicuously situated narrow gated opening be present to allow access for site maintenance and appropriate visitation.

Most recently in 2019, ASM Affiliates prepared a Dismantling/Restoration Plan (Barna 2019) for a portion of the Kuakini Wall (Site 6302) (see Table 2 and Figure 2-20). The plan outlined the measures to be followed during the process of dismantling/restoration of collapsed portions of and three breaches in Site 6302.

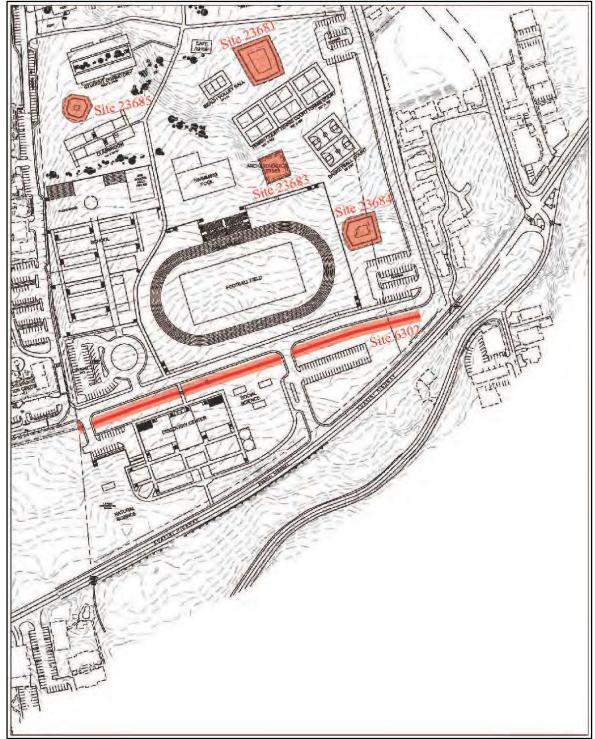


Figure 2-20. Plan view showing archaeological and burial sites and preserves (Rechtman et al. 2013:5).

3.0 FINDINGS AND RECOMMENDATIONS

3.1 SUMMARY OF FINDINGS & PROPOSED RECOMMENDATIONS

Based upon the information obtained from the review of historical documentation, archaeological reports, oral traditions, informal discussions, and formal interviews, the following is a summary of findings.

- Regarding the native Hawaiian epistemological approach to "land use," three prevalent and generally applied principles that continue to be perpetuated are:
 - a) Recognizing that all 'āina (literally translated as "that which feeds", but commonly applied as a definition for "land") is born of Papahānaumoku (Earth Mother). This guiding principle is the foundation from which the cultural values of aloha 'āina and mālama 'āina are derived.
 - b) Acknowledging that although traces of a physical imprint and its integrity of traditional cultural properties, resources, features, beliefs, and practices either may no longer remain, there is a thriving spiritual imprint that remains in the form of *mana*, the spiritual essence of those *kūpuna* and *nā mea loea* that have come before.
 - c) Understanding that place names, like Wai'aha, illustrate a collective history of a geographical region, reiterate community and familial genealogy, characterize and describe the natural resources within a prescribed physical space, and define recognized cultural mores and values of the existing community.

As such, it is recommended that the proposed development incorporate the guiding cultural principles in the physical design of the facilities and the surrounding landscape in the selection of appropriate plantings and exterior features.

The *moku o loko* was a recognized residence and political center for ruling *ali'i* as early as the 15th century. The *mauka* region of Wai'aha, west of the existing project area, includes the cultural landscape that once defined the royal residence of Kamehameha IV and Queen Emma and the former site of the old Kona sugar mill. Portions of the project area illustrate the influence of the cattle and ranching industry that emerged within the region. The coastal waters along the *makai* portion of the *ahupua'a* are part of two traditional surfing grounds, called Koʻokā and Kahopuka, which extended from the *ahupua'a* of Pua'a, situated just north of Wai'aha. Additionally, several other traditional and historic sites including identified springs, enclosures, and mounds, which have been recorded within the general vicinity of the project area.

As a cultural landscape, the *ahupua* 'a of Wai 'aha reveals a kaleidoscope of historical and cultural features and properties. It is recommended that the proposed development incorporate the unique historical and cultural legacy specific to the subject parcels, Wai 'aha Ahupua' and the greater Kona region.

3) Beginning in 2003, Rechtman Consulting, LLC conducted a series of archaeological investigations within the project area, the first of which consisted of an AIS. As part of the AIS study, two preservation sites (Sites 6302 and 23681) were documented within the project area. Additionally, the presence of three burial sites were confirmed within the project area (Sites 23683, 23684, and 23685). Prior to the establishment of the burial laws (specifically the Native American Graves Protection and Repatriations Act of 1990 and State of Hawai'i burial laws (1990), there was no generally agreed upon methodology to the effective treatment of both identified burial sites and inadvertent discoveries. However, the establishment of these laws has helped to facilitate a process that provides a guideline for agencies and communities to derive an appropriate plan of action in the protection and preservation of ancestral remains.

As human burials have been documented within the project area, the appropriate effectual treatment of the identified burial sites will be applied. The interim and permanent preservation measures set forth in the approved burial treatment plan prepared by Rechtman (2003) for Sites 23683, 23684, and 23685 shall be implemented under the direct supervision of a qualified archaeologist. Additionally, cultural concerns that were expressed by those in the Hawaiian community of Kona regarding recommendation protocols in properly handling *iwi*, ancestral remains, as well as consultation with appropriate parties and final disposition any burial, shall be taken into consideration. It is stressed that utmost sensitivity, caring, and understanding be employed when dealing with burial issues and *iwi*.

Cultural Impact Assessment

- In the event of an inadvertent discovery of ancestral remains, the applicable processes outlined in existing State regulations, specifically those provided in the Hawai'i Administrative Rules, Title 13, Chapter 300, Section 40 and Section 33, will be employed.
- 2) If for some reason, *iwi* must be moved or touched, it is highly recommended that an identified cultural monitor, a lineal/cultural descendant or someone of Hawaiian ancestry work in conjunction with a qualified archaeological monitor to complete this task. It is highly recommended that the U of N Bencorp coordinate the selection of a cultural monitor with known lineal and cultural descendants as well as other appropriate cultural entities or organizations.
- 3) Notify and consult with known and potential lineal and cultural descendants as it relates to any burial relocation or inadvertent discovery.
- 4) Consult with the appropriate agencies and organizations including: State Department of Land and Natural Resources, Historic Preservation Division (DLNR/SHPD), SHPD Burial staff, the Hawai'i Island Burial Council (HIBC), the Office of Hawaiian Affairs (OHA), and other interested Hawaiian organizations.
- 5) Implementation of the interim and permanent preservation measures set forth in the approved burial treatment plan for Sites 23683, 23684, and 23685.
- 6) Implementation of the interim and permanent preservation measures set forth in the approved preservation plan for Sites 6302 and 23681.
- 7) Implementation of the measures to be followed during the process of dismantling/restoring of collapsed portions of and three breaches in Site 6302.
- 8) Archaeological monitoring is recommended for all ground-disturbing activities associated with the proposed development within the project area.

3.2 HISTORICAL AND CULTURAL SYNOPSIS

Historical documentation indicates that as early as the 15th century during the reign of 'Ehukaimalino, the mokuoloko, the interior land district of Kona with its vast natural resources was a preferential location for royal residence, particularly between the regions of Lanihau to Keauhou. Numerous native oral traditions and foreign accounts illustrate that the ahupua'a of Wai'aha was part of a larger and significant political and population center that was primarily sustained by a variety of dryland agricultural practices.

Wai'aha was also a favored retreat for Emma Naea Rooke and her husband, Alexander Kalanikualiholihokekapu 'Iolani (Kamehameha IV), who acquired land in the upland regions of the ahupua'a, and their son Prince Albert Edward Kauikeaouli Leiopapa a Kamehameha. Upon the king's death in 1865, the Dowager Queen Emma purchased the land of Wai'aha from the estate of her late husband, where she retained a home on the estate until her death in 1885. Several recorded oral accounts, one composed by the Queen herself, speak of the verdant uplands of Wai'aha and the general Kona region in a poetic and honorific tribute through the compositions of $n\bar{a}$ kanikau, lamentation chants that marked the death of the young Prince Albert, who died at the age of four from acute appendicitis.

Sources suggest that by the late 1890s, much of the land within the Wai'aha ahupua'a was utilized by the Kona Sugar Company to support the sugarcane industry that was emerging within the region. Following the closure of the plantation and the mill site in 1926, much of the land within Wai'aha, including a large portion of the project area, was purchased by Manuel Gomes as part of an immense cattle and ranching operation.

The upper slopes of Wai'aha are utilized today for ranching and diversified agriculture and coffee production. The coastal regions are part of an immense industry that is primarily focused on tourism with a wide variety of vacation timeshares and visitor accommodations, serving as a venue for major sporting events like the Billfish Tournament and Ironman Triathlon.

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	Cultural Impact Assessment
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APPENDIX A

List of Organizations and Individuals Contacted in Conducting the Cultural Impact Assessment

U of N Bencorp

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	Name	None	None KM	9	OT Initial Contact Expertise Potential Affiliation	Expertise	Potential	Affiliation	Additional Comments	Knowledge Shared
26	McDonald, Ruby	· i	+		11/6/2002	ср: Гн	ш	ОНА	Suggested contacting Kepā Maly, Cultural Resource Specialist	Grandfather was Kapae, who held LCAs within the adjacent ahupuaya of Kahalui. Shared a monelei regarding an event that took place with her suggested contacting Kepa Maly, Cultural Resource bloother at a place along Valaria Stream that involved seening a roou just special stream that involved seening a roou just special stream that would travel from Napsoopoo to visit the orbana. Shared concerns for potential bunds that might be located within the project area.
27	Pilago Angel		+		10/18/2002	GP CP	3	50		
28	Punihaole, Robert	+	1	i	n	CP. KB	2	5		
29	Rawlins, Celia		+	Tr I	11/6/2002	CMS	N	TRZ, UB	Suggested contacting Marsha Gemes, potential contact for family that used to own the Walyaha property.	
30	Roy, Kahelemauna	+	-	-	DNC	KP	2	LR	The state of the s	A STATE OF THE PARTY OF THE PAR
<u> </u>	Roy, Milahala	0	1-141-1		1/31/2003	R R R	ta	R	Wants to keep in contact as project progresses	Concerned about the university's kuleana to makama its own ratural resources and understand its positive/regative contribution to the cumulative environmental and socio-eponomic-cultural issues of the greater kond factor. Concerned about the future role of the university becoming better englightors within local area. Concerned about implementative actions to be planned for the program development of cultural center and essuring its authernolty and development of cultural center and essuring its authernolty and residently. Concerned about maintaining cultural integrity and nithness of Kona's unique legacy particularly its role as a center for royally and its existing rural character.
32	Souza-Save, Gall	T-	+	111	11/26/2002	CM; CP	160	LR, QLCC	Will forward information as appropriate to kupuna that might have some information to share, suggested contacting Kepa Maly for further information.	Will forward information as appropriate to kupuna Stated that a major concern within the Kona region is the protection of the than might, have some information to share, livil kupuna (ancestral termins) that reside within the aina. Expressed her Suggested contacting Kepa Maly for further mans of that the protection of livil kupuna to Kanakia Madi shauld be an information.
e	Springer, Hannah	Ŧ			2/21/2008	LH; CP	KA.	5	George Atta and/or Aunti Mary Boyd will be Concerned about the remnants of following up a discussion with Ms. Springer's Question as to whether or not certa-concerns.	Boyd will be Concerned about the remnants of the Kona field systems in the area Ms. Springer's Question as to whether or not cartain agricultural features should be jett intact to illustrate the isotry of the field system within the project area.
34	Woodside, Ulalia	Ţ.	+		11/5/2002	CP; CRS	2	XS	Provided contact reference for Ruby McDonald, Cited moyalelo of Kamiki Office of Hawalian Affairs, Suggested contacting outbreat history of Kona area OLICCKona Division and Keps Maly.	Oted moyalelo of Kamiki as a potential source for place names and cultural history of Kona area.

APPENDIX B

Informal Questions in Reference to Wai'aha Ahupua'a Cultural Impact Assessment

Cultural Impact Assessment

Informal Questions in Reference to U of N Bencorp Cultural Impact Assessment

Date:
Time:
Location:
Interviewer:
What is your name?
When were you born?
Where were you born?
Who are/were your parents?
Where did you grow up?
Additional family background:
Where are you presently residing?
How did you become familiar with the historic sites or events associated with Wai'aha?
Are you familiar with the area of Wai'aha where the existing university is situated? How familiar?
Are you familiar with historical or cultural sites in the area of the U of N?
Are there are place names near the project site that are not mentioned that you can share?
Have you heard stories about the place names or sites of Wai'aha?
Traditional Land residency, land use, gathering rights, and practices:
Ceremonial sites or practices; House sites; Shoreline Resources; Gathering Practices Burials;
Any thoughts about the proposed expansion of the university?