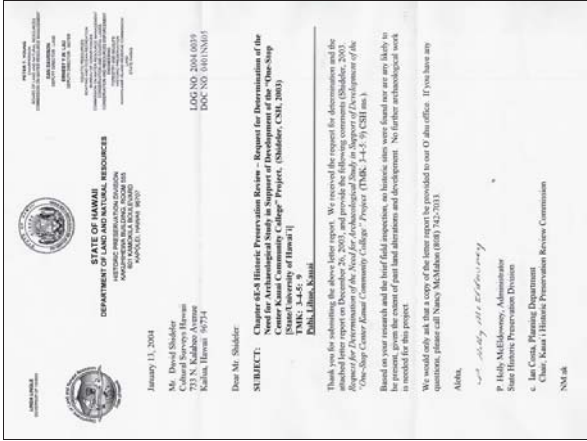


Wikox, Carol
1998 *Sugar Water: Hawaii's Plantation Ditches*. University of Hawai'i Press,
Honolulu.

Appendix A SHPD Correspondence



Cultural Impact Assessment for the
Kauai Community College Redesignation to Urban District
Cultural Surveys Hawaii, Inc.
April 2012

**Cultural Impact Assessment for the
Kaua'i Community College Redesignation to Urban
District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a,
Līhu'e District, Kaua'i Island:
TMK: [4]-3-4-007-001, [4]-3-4-007-002,
[4]-3-4-007-003, and [4]-3-4-007-006**

Prepared for
Wilson Okamoto Corporation

Prepared by
Angela I. Fa'anunu, M.S.P.H.,
Margaret Magat, Ph.D.
and
Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawai'i, Inc.
Kailua, Hawai'i
(Job Code Niumalu2)
April 2012

O'ahu Office
P.O. Box 1114
Kailua, Hawai'i 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

www.culturalsurveys.com

Maui Office
1860 Main St.
Wailuku, Hawai'i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Prefatory Remarks on Language and Style

A Note about Hawaiian and other non-English Words:

Cultural Surveys Hawai'i (CSH) recognizes that the Hawaiian language is an official language of the State of Hawai'i. Hawaiian Language is important to daily life, and using it is essential to conveying a sense of place and identity. As such, CSH does not follow the conventional use of italics to identify and highlight Hawaiian words. However, other non-English words in this report are still presented in italics unless citing from a previous document that does not italicize them. CSH parenthetically translates or defines in the text the non-English words at first mention, and the commonly-used non-English words and their translations are also listed in the *Glossary* (Appendix A) for reference. However, translations of Hawaiian and other non-English words for plants and animals mentioned by community participants are referenced separately (see explanation below).

A Note about Plant and Animal Names:

When community participants mention specific plants and animals by Hawaiian, other non-English, or common names, CSH provides their possible scientific names (Genus and species) in the *Common and Scientific Names of Plants and Animals Mentioned by Community Participants* (Appendix B). CSH derives these possible names from authoritative sources, but since the community participants only name the organisms and do not taxonomically identify them, CSH cannot positively ascertain their scientific identifications. CSH does not attempt in this report to verify the possible scientific names of plants and animals in previously published documents; however, citations of previously published works that include both common and scientific names of plants and animals appear as in the original texts.

Abbreviations

AD	Anno Domini referring to the year of Christ's birth
AIS	Archaeological Inventory Survey
APE	Area of Potential Effect
BC	Boundary Certificate No.
BCT	Boundary Commission Testimony
CIA	Cultural Impact Assessment
CSH	Cultural Surveys Hawai'i
DOH/OEQC	Department of Health/Office of Environmental Quality Control
FB	Field Book Register
HAR	Hawai'i Administrative Rules
HRS	Hawai'i Revised Statutes
HSPA	Hawaiian Sugar Planters' Association
HSRM	Hawai'i Survey Registered Maps
KCC	Kaua'i Community College
LCA	Land Commission Award
NHPA	National Historic Preservation Act
NR	Land Commission, National Register
NT	Land Commission, Native Testimony
OHA	Office of Hawaiian Affairs
RM	Registered Map
RPG	Royal Patent Grant
KNIBC	Kaua'i/Ni'ihau Island Burial Council
SIHP	State Inventory of Historic Properties
SHPD	State Historic Preservation Division
TCP	Traditional Cultural Property
TMK	Tax Map Key
UHCC	University of Hawai'i Community College
USGS	United States Geological Survey

Management Summary

Reference	Cultural Impact Assessment (CIA) for the Kaua'i Community College (KCC) Redesignation to Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Līhu'e District, Kaua'i Island. TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006 (Fa'anunu, Magat, and Hammatt 2012)
Date	April 2012
Project Number	CSH (Cultural Surveys Hawai'i) Job Code: NIUMALU 2
Agencies	State of Hawai'i Department of Health/Office of Environmental Quality Control (DOH/OEQC)
Project Location	This study is located in the ahupua'a (Land division usually extending from the uplands to the sea in the district of Līhu'e, on the island of Kaua'i. The TMK parcels for the proposed site are: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006
Land Jurisdiction	Public, University of Hawai'i
Project Description	The University of Hawai'i Community Colleges (UHCC) proposes to amend the State Land Use District Boundary to re-designate the entire 199-acre KCC campus from its existing land use classification of Agricultural District to Urban District. The Project consists of the re-designation of land, as well as the construction of new buildings, additions to buildings, and new parking. A Special Permit was granted by the State Land Use Commission in 1973 for construction of the college campus within an approximately 99-acre parcel situated within TMK [4]-3-4-07:003. Most of the additional approximately 100 acres (within TMK [4]-3-4-07:01, :002 and :006) are undeveloped, except for two Hawaiian Language Immersion schools, Pūnana Leo o Kaua'i Pre-School and Kawaikini New Century Public Charter School
Project Acreage	Approximately 199 acres
Area of Potential Effect (APE) and Survey Acreage	For the purposes of this CIA, the APE is defined as the 199-acre Project area. While this investigation focuses on the Project APE, the study area also includes the three ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū
Document Purpose	The Project requires compliance with the State of Hawai'i environmental review process (Hawai'i Revised Statutes [HRS])

Cultural Surveys Hawai'i Job Code: NIUMALU 2		Management Summary
	<p>Chapter 343), which requires consideration of a proposed project's effect on cultural practices and resources. Through document research and ongoing cultural consultation efforts, this report provides information pertinent to the assessment of the proposed Project's impacts to cultural practices and resources (per the <i>Office of Environmental Quality Control's Guidelines for Assessing Cultural Impacts</i>), which may include Traditional Cultural Properties (TCP) of ongoing cultural significance that may be eligible for inclusion on the State Register of Historic Places, in accordance with Hawai'i State Historic Preservation Statute (Chapter 6E) guidelines for significance criteria according to Hawai'i Administrative Rules (HAR) §13-275 under Criterion E. The document is intended to support the Project's environmental review and may also serve to support the Project's historic preservation review under HRS Chapter 6E and HAR Chapter 13-275</p>	
Consultation Effort	Hawaiian organizations, agencies and community members were contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the Project area and the vicinity. Outreach included efforts to contact 32 individuals and agencies. The organizations consulted included the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), the Kāua'i/Ni'ihau Island Burial Council (KNIBC), the Hui Mālama I Kūpuna 'O Hawai'i Nei, the Kāua'i/Ni'ihau Ho'okipa Network, the Kaumuali'i Hawaiian Civic Club, the Kāua'i Historical Society, Mālama Kāua'i, and community members of the Lihū'e District.	
Results of Background Research	<p>Background research for the proposed Project indicates that the Project area, which lies approximately two miles southwest of Lihū'e Town, is part of a traditional region encompassing the ahupua'a of Nāwiliwili, Niūmalu, and Ha'ikū. Early accounts describe the region as an open, grass-covered land that was dotted with trees and streams that flowed down from lush mountains on the way to the sea, with soils that bore a variety of crops like sugar-cane, taro, sweet-potatoes, beans and groves of kukui, (candlenut), hau (beach hibiscus), koa, hala (pandanus), and wiliwili. The abundance of water and water systems, presence of famed fishponds on the coast, along with the concentration of permanent house sites, temporary shelters, and heiau suggests early settlement along coastal areas, with a radiocarbon date of A.D. 1170 to 1400 near the mouth of Hanama'ulu Stream, north of Nāwiliwili.</p> <p>In the mid-19th century, the Project area became associated with the establishment of the commercial sugar cane agriculture which required foreign indentured labor imported from Japan, China, and the Philippines. The Project area was part of the Grove Farm Plantation before the farm stopped its sugar business in 1974. Within the Project</p>	
Cultural Impact Assessment for the Kāua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niūmalu, and Ha'ikū Ahupua'a, Lihū'e District, Kāua'i Island.		v
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006		

Cultural Surveys Hawai'i Job Code: NIUMALU 2		Management Summary
	<p>area lies remnants of the Old Puhi Camp, which housed plantation workers of Grove Farm. The camp was built around 1920 along the present Kaumuali'i Highway and contained a movie hall, three stores, a Chinese laundry, a slaughterhouse, and an area for social events. Most of the Puhi Camp housing was removed in the 1970s prior to the construction of KCC and the last homes of the camp were dismantled in the 1980s.</p> <p>The Project area is also linked to many mo'olelo (stories, oral histories) and wahi pana (storied places) that suggests early settlement of the area by a viable Native Hawaiian population. These include mo'olelo about Kuhiau Heiau, the largest heiau in Kāua'i, Ninini and Ahukini Heiau in Kalapaki, the Menehune, wiliwili trees, and the many well-known chiefs, heros, and gods such as the chief Papalinaloa, the three sons of La'a Maikahiki, the hero Lohiau; the contest of Kemamo the sling-thrower and Kapūnohu, the ravishing of Pele by Kamapua'a, demi-god Pōhaku-o-Kāua'i (Hoary Head), as well as a Kāua'i chief sent by Ka'umuāli'i to placate Kamehameha I on O'ahu. Mo'olelo with associated bodies of water within the Project area are also plentiful which include Alekoko, the largest fishpond in Kāua'i (also known as 'Alekoko, Alakoko, Pēpē'awa), Hulēia (Hulā'ia) Stream, Kilohana, and Nāwiliwili Bay. Many wahi pana of settled areas, such as Puhi, Lihū'e, and various pu'u (hills, ridges) are also associated with the Project area.</p> <p>Other important findings from background research are presented and emphasized in more detail:</p> <ol style="list-style-type: none"> 1. The traditional moku or districts of Kāua'i were replaced in the mid-to-late 19th century. Lihū'e became the modern district that includes the ahupua'a of the proposed Project, previously under the Puna District. "Lihū'e," which literally translates as "cold chill," was not consistently used until the establishment of commercial sugar cane agriculture in the mid-19th century (Creed et al. 1999). Between the 1830s and the Māhele, the names Nāwiliwili and Lihū'e were used somewhat interchangeably to refer to a settlement along Nāwiliwili Bay. 2. No known heiau currently exists within the study area although Kuhiau Heiau, reported to be the largest and most famed heiau on Kāua'i, existed along the coast of Nāwiliwili Ahupua'a (Damon 1931). Listed by Bennett (1931) as Site No. 99, this heiau is reported to have been about four acres and associated with Paakini Rock, its sister heiau that marks the boundary between Nāwiliwili and Kalapaki Ahupua'a. 	
Cultural Impact Assessment for the Kāua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niūmalu, and Ha'ikū Ahupua'a, Lihū'e District, Kāua'i Island.		vi
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006		

Cultural Surveys Hawai'i Job Code: NIUMALU 2		Management Summary
	<ol style="list-style-type: none"> 3. After the Māhele, Victoria Kaniāmālu was awarded over two thousand acres of Nāwiliwili Ahupua'a, along with much of Niūmalu and Ha'ikū. Land Commission Awards (LCAs) describe many lo'i (irrigated taro, especially for taro) and kula (plain, field, open country, pasture) lands within the study area particularly as being in the same 'āpana (piece, slice, portion), a pattern common to the Puna District of Kāua'i, but uncommon elsewhere in Hawai'i. Māka'āina (commoner) in the Puna District were referring to lands in valley bottoms as kula. 4. Many loko i'a (fishponds) were prevalent in the study area. LCAs document six in Nāwiliwili, seven in Niūmalu, and claimants describe loko (pond) or kiowai (water hole) in Ha'ikū. 'Alekoko Fishpond, also known as Menehune Fishpond, or Niūmalu Fishpond, is the largest fishpond on Kāua'i and still exists in the study area. It is also known as SHHP No. 50-30-11-501. 5. The Project area was initially part of the Grove Farm Plantation—so named after an old stand of kukui trees. The plantation was established in 1850 and taken over by Mr. George Wilcox in 1863. He bought the farm in 1870 for \$12,000 and it flourished under his leadership. In the mid-1960s, Grove Farm donated 200 acres of former sugar land to the State of Hawai'i for KCC. Grove Farm ended its sugar business in 1974 (Wilcox 1998:76). 6. The Old Puhi Camp, which housed plantation workers of Grove Farm, extended into the Project area and consisted of about 600 homes for about 1,200 workers and their families. At the forefront of housing reforms, Puhi Camp dwellings became the standard for the plantation industry in the 1920s (Riznik 1999). 7. An archaeological reconnaissance by Palama in 1973 identified the Puhi Camp Cemetery, State Inventory of Historic Places (SIHP) No. 50-30-11-B006, old plantation camp remains associated with Puhi Camp, Puhi Camp, and an area containing possible lo'i. A field inspection of the Project area in August, 2010, found ten historic surface features, including two previously identified historic features (CSH 9, CSH 10) by Palama (1973). An "old 'auwai" that conforms to a portion of Grove Farm's "Mauika Ditch", corresponds to CSH 9 and the Puhi Cemetery corresponds to CSH 10. However, the Puhi cemetery is outside of but surrounded by the Project area. The 	
Cultural Impact Assessment for the Kāua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niūmalu, and Ha'ikū Ahupua'a, Lihū'e District, Kāua'i Island.		vii
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006		

Cultural Surveys Hawai'i Job Code: NIUMALU 2		Management Summary
	<p>remaining features found appear to be related to Grove Farm and date to the plantation era. The historic surface features consist of five irrigation ditches (CSH 1, CSH 2, CSH 4, CSH 6, CSH 9), one of which (CSH 1) is abandoned; three reservoirs (CSH 3, CSH 5, CSH 7) of which CSH 3 is abandoned; and an abandoned wooden flume (CSH 8)</p>	
Results of Community Consultation	<p>CSH attempted to contact 32 community members, government agencies, community organizations, and individuals, including residents, "recognized" (either cultural or lineal) descendants, and cultural practitioners. Community consultations began in September, 2011 until February, 2012. Of the 22 people that responded, eight kūpuna (elders) and/or kama'āina (Native-born) participated in formal interviews for more in-depth contributions to the CIA and two people provided a statement via e-mail and telephone.</p> <p>This community consultation indicates that additional significant cultural resources, namely streams and watersheds as well as the Hulē'ia National Wildlife Refuge near and downstream from the Project area, have not been adequately documented and assessed for their ecological relationship with natural and cultural resources within and near the Project area. The study area and environs, in particular the lo'i, kula or lands in valley bottoms in this particular context, rivers, streams and Nāwiliwili Bay, has a long history of use by Kānaka Maoli (Native Hawaiians) and other kama'āina groups for a variety of past and present cultural activities and gathering practices. Participants consulted reveal their knowledge of these practices and resources.</p> <p>At least two community contacts, Mr. Pereira, and Mr. Chun, discuss fishing, gathering 'opihī (limpets) and limu (seaweed, algae) in Nāwiliwili Bay, and crabbing along Hulē'ia River which still continue today among residents of the area. Both participants discuss spear and throw-net fishing which for Mr. Pereira consisted in part of catching akule (big-eye scad), manini (convict tang), and squid using his own throw net which he creates and sells to others. Several participants (Mr. Robert White, Mr. Pereira and Mr. Chun) narrate he'enalua (surfing) practices and associated mo'olelo in the past and in the present. At least two participants note the abundance of freshwater resources and the watershed near the Project area and highlight the ecological relationship of natural and cultural resources within or near the Project area.</p> <p>Participants also relate mo'olelo about the practice of hukilau (fish with the seine), the origin of the name "Puhi" which is connected to the cave of a shark god in Ha'ikū, as well as the presence of spirits in the</p>	
Cultural Impact Assessment for the Kāua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niūmalu, and Ha'ikū Ahupua'a, Lihū'e District, Kāua'i Island.		viii
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006		

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Cultural Surveys Hawai'i Job Code: NIUMALU 2				
Management Summary	Management Summary				
<table border="1"> <tr> <td data-bbox="250 216 370 842"></td> <td data-bbox="371 216 735 842"> <p>Project area in the form of fireballs. At least five participants relate the gathering of plants such as bamboo shoots, papaya, mangoes, passionfruit, guava and pepeiao (cloud ear fungus) in the Project area along with the catching of crayfish, 'o'opu, and frogs in the irrigation ditches and reservoirs while at least two community contacts related about the hunting of pheasants and wild boars. Participants also discuss burials and note the existence of a historic cemetery surrounded by the Project area, and another cemetery nearby. Many participants stress the importance of respecting and sharing resources with one another, the ecological relationship that shapes natural and cultural resources, and the need to keep the ecological balance by keeping contaminants away from the watershed upon which the Project area is built to ensure a healthy environment for Nāwiliwili Bay and the wildlife refuge area downstream of the Project area.</p> <p>Other important findings from community consultations are presented and emphasized in more detail:</p> <ol style="list-style-type: none"> In the 1960s and 70s, the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū, consisted of small rural towns with taro cultivated relatively close to the ocean. Mr. Chun describes Nāwiliwili Valley as having had many taro fields which later turned into cattle pastures and grassland. Today, he tells of only one family in Nāwiliwili and a few in the back of Niumalu who continue the practice. Mr. Pereira speaks of growing up in Niumalu with no electricity and using kerosene for cooking. The Project area is agricultural land formally owned by Grove Farm where pineapple, cattle, and later sugar cane, were farmed. Plantations provided a livelihood for many residents of Kaula like Mr. Pereira and Kupuna Makanani. Mr. Pereira worked in the sugar and pineapple plantations during the summertime as a young boy, which paid for his schooling. Mr. Chun and Mr. Pereira recall the predominance of the sugar industry which included the establishment of a sugar mill in Nāwiliwili. A railway system brought cane from the fields to the mill which later became replaced by trucks. The Project area includes the former Old Puhi Camp, a plantation camp for the workers of Grove Farm Plantation and their families. Since Puhi Camp was a significant part of the Project area's history, Puhi Camp is described in more detail: <ul style="list-style-type: none"> Participants remember Puhi as a self-sufficient plantation camp with its own stores, doctors, and medical facilities. Families shopped for groceries in plantation stores, and bought items using credit, to be paid for on payday. Plantation workers lived at Puhi for </td> </tr> </table> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihue District, Kaula's Island.</p> <p>TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p> <p>ix</p>		<p>Project area in the form of fireballs. At least five participants relate the gathering of plants such as bamboo shoots, papaya, mangoes, passionfruit, guava and pepeiao (cloud ear fungus) in the Project area along with the catching of crayfish, 'o'opu, and frogs in the irrigation ditches and reservoirs while at least two community contacts related about the hunting of pheasants and wild boars. Participants also discuss burials and note the existence of a historic cemetery surrounded by the Project area, and another cemetery nearby. Many participants stress the importance of respecting and sharing resources with one another, the ecological relationship that shapes natural and cultural resources, and the need to keep the ecological balance by keeping contaminants away from the watershed upon which the Project area is built to ensure a healthy environment for Nāwiliwili Bay and the wildlife refuge area downstream of the Project area.</p> <p>Other important findings from community consultations are presented and emphasized in more detail:</p> <ol style="list-style-type: none"> In the 1960s and 70s, the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū, consisted of small rural towns with taro cultivated relatively close to the ocean. Mr. Chun describes Nāwiliwili Valley as having had many taro fields which later turned into cattle pastures and grassland. Today, he tells of only one family in Nāwiliwili and a few in the back of Niumalu who continue the practice. Mr. Pereira speaks of growing up in Niumalu with no electricity and using kerosene for cooking. The Project area is agricultural land formally owned by Grove Farm where pineapple, cattle, and later sugar cane, were farmed. Plantations provided a livelihood for many residents of Kaula like Mr. Pereira and Kupuna Makanani. Mr. Pereira worked in the sugar and pineapple plantations during the summertime as a young boy, which paid for his schooling. Mr. Chun and Mr. Pereira recall the predominance of the sugar industry which included the establishment of a sugar mill in Nāwiliwili. A railway system brought cane from the fields to the mill which later became replaced by trucks. The Project area includes the former Old Puhi Camp, a plantation camp for the workers of Grove Farm Plantation and their families. Since Puhi Camp was a significant part of the Project area's history, Puhi Camp is described in more detail: <ul style="list-style-type: none"> Participants remember Puhi as a self-sufficient plantation camp with its own stores, doctors, and medical facilities. Families shopped for groceries in plantation stores, and bought items using credit, to be paid for on payday. Plantation workers lived at Puhi for 	<table border="1"> <tr> <td data-bbox="893 216 1013 842"></td> <td data-bbox="1015 216 1378 842"> <p>cheap rent, received kerosene for cooking, and hot water for bathing. Land was also given to anyone who wished to grow vegetables and crops were shared with each other.</p> <ul style="list-style-type: none"> While various accounts portray plantation life as harsh and unfulfilling, Mr. Takahashi relates that the Wilcox family treated their workers very well and life was enjoyable at Puhi. Workers were provided the opportunity to own their own homes. Those raised on the camp fondly reminisce of a simple life and special place—a close-knit community where everybody recognized and took care of each other despite their differences. "For me, growing up in Puhi was great!", says Kupuna Makanani. The culture of Puhi Camp was diverse. According to Kupuna Makanani, the homes in Puhi were arranged by race though "everybody lived as one people." Participants raised in the camp, appreciate their multi-cultural upbringing through the sharing of cultural practices, folk dances, foodways, and folklore. Participants recalled other cultural activities at Puhi Camp such as the 'Social Box' which was a dance held by the Filipinos once a month. Mr. Pereira also describes an annual Filipino carnival called the "Holy Ghost" that occurred every December. On Tuesdays, fresh bread and <i>malasadas</i> (Portuguese pastry) were baked and children collected firewood to keep the fire alive for baking. The transition to unionization of workers in 1946 brought many changes to Puhi Camp. Kupuna Makanani explains that before the union, though wages were low, housing and water were free and Grove Farm provided equipment and toys for the children. Several strikes ensued but the strikes were peaceful, unlike the massacre at Hanalei in 1924. During the strikes, a soup kitchen run by the union, provided food for workers on strike and their families. Two graveyards, known to Puhi residents as "Old Puhi Cemetery" (SIHP No. 50-30-11-B0006) and "Cement Pond," are located outside of but within 200 meters of the Project area. The cemetery is divided into two sections for Japanese and Filipino families despite the multi-cultural makeup of Puhi. According to Mr. Takahashi, other ethnicities chose to be buried elsewhere and many graves were removed by their </td> </tr> </table> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihue District, Kaula's Island.</p> <p>TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p> <p>x</p>		<p>cheap rent, received kerosene for cooking, and hot water for bathing. Land was also given to anyone who wished to grow vegetables and crops were shared with each other.</p> <ul style="list-style-type: none"> While various accounts portray plantation life as harsh and unfulfilling, Mr. Takahashi relates that the Wilcox family treated their workers very well and life was enjoyable at Puhi. Workers were provided the opportunity to own their own homes. Those raised on the camp fondly reminisce of a simple life and special place—a close-knit community where everybody recognized and took care of each other despite their differences. "For me, growing up in Puhi was great!", says Kupuna Makanani. The culture of Puhi Camp was diverse. According to Kupuna Makanani, the homes in Puhi were arranged by race though "everybody lived as one people." Participants raised in the camp, appreciate their multi-cultural upbringing through the sharing of cultural practices, folk dances, foodways, and folklore. Participants recalled other cultural activities at Puhi Camp such as the 'Social Box' which was a dance held by the Filipinos once a month. Mr. Pereira also describes an annual Filipino carnival called the "Holy Ghost" that occurred every December. On Tuesdays, fresh bread and <i>malasadas</i> (Portuguese pastry) were baked and children collected firewood to keep the fire alive for baking. The transition to unionization of workers in 1946 brought many changes to Puhi Camp. Kupuna Makanani explains that before the union, though wages were low, housing and water were free and Grove Farm provided equipment and toys for the children. Several strikes ensued but the strikes were peaceful, unlike the massacre at Hanalei in 1924. During the strikes, a soup kitchen run by the union, provided food for workers on strike and their families. Two graveyards, known to Puhi residents as "Old Puhi Cemetery" (SIHP No. 50-30-11-B0006) and "Cement Pond," are located outside of but within 200 meters of the Project area. The cemetery is divided into two sections for Japanese and Filipino families despite the multi-cultural makeup of Puhi. According to Mr. Takahashi, other ethnicities chose to be buried elsewhere and many graves were removed by their
	<p>Project area in the form of fireballs. At least five participants relate the gathering of plants such as bamboo shoots, papaya, mangoes, passionfruit, guava and pepeiao (cloud ear fungus) in the Project area along with the catching of crayfish, 'o'opu, and frogs in the irrigation ditches and reservoirs while at least two community contacts related about the hunting of pheasants and wild boars. Participants also discuss burials and note the existence of a historic cemetery surrounded by the Project area, and another cemetery nearby. Many participants stress the importance of respecting and sharing resources with one another, the ecological relationship that shapes natural and cultural resources, and the need to keep the ecological balance by keeping contaminants away from the watershed upon which the Project area is built to ensure a healthy environment for Nāwiliwili Bay and the wildlife refuge area downstream of the Project area.</p> <p>Other important findings from community consultations are presented and emphasized in more detail:</p> <ol style="list-style-type: none"> In the 1960s and 70s, the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū, consisted of small rural towns with taro cultivated relatively close to the ocean. Mr. Chun describes Nāwiliwili Valley as having had many taro fields which later turned into cattle pastures and grassland. Today, he tells of only one family in Nāwiliwili and a few in the back of Niumalu who continue the practice. Mr. Pereira speaks of growing up in Niumalu with no electricity and using kerosene for cooking. The Project area is agricultural land formally owned by Grove Farm where pineapple, cattle, and later sugar cane, were farmed. Plantations provided a livelihood for many residents of Kaula like Mr. Pereira and Kupuna Makanani. Mr. Pereira worked in the sugar and pineapple plantations during the summertime as a young boy, which paid for his schooling. Mr. Chun and Mr. Pereira recall the predominance of the sugar industry which included the establishment of a sugar mill in Nāwiliwili. A railway system brought cane from the fields to the mill which later became replaced by trucks. The Project area includes the former Old Puhi Camp, a plantation camp for the workers of Grove Farm Plantation and their families. Since Puhi Camp was a significant part of the Project area's history, Puhi Camp is described in more detail: <ul style="list-style-type: none"> Participants remember Puhi as a self-sufficient plantation camp with its own stores, doctors, and medical facilities. Families shopped for groceries in plantation stores, and bought items using credit, to be paid for on payday. Plantation workers lived at Puhi for 				
	<p>cheap rent, received kerosene for cooking, and hot water for bathing. Land was also given to anyone who wished to grow vegetables and crops were shared with each other.</p> <ul style="list-style-type: none"> While various accounts portray plantation life as harsh and unfulfilling, Mr. Takahashi relates that the Wilcox family treated their workers very well and life was enjoyable at Puhi. Workers were provided the opportunity to own their own homes. Those raised on the camp fondly reminisce of a simple life and special place—a close-knit community where everybody recognized and took care of each other despite their differences. "For me, growing up in Puhi was great!", says Kupuna Makanani. The culture of Puhi Camp was diverse. According to Kupuna Makanani, the homes in Puhi were arranged by race though "everybody lived as one people." Participants raised in the camp, appreciate their multi-cultural upbringing through the sharing of cultural practices, folk dances, foodways, and folklore. Participants recalled other cultural activities at Puhi Camp such as the 'Social Box' which was a dance held by the Filipinos once a month. Mr. Pereira also describes an annual Filipino carnival called the "Holy Ghost" that occurred every December. On Tuesdays, fresh bread and <i>malasadas</i> (Portuguese pastry) were baked and children collected firewood to keep the fire alive for baking. The transition to unionization of workers in 1946 brought many changes to Puhi Camp. Kupuna Makanani explains that before the union, though wages were low, housing and water were free and Grove Farm provided equipment and toys for the children. Several strikes ensued but the strikes were peaceful, unlike the massacre at Hanalei in 1924. During the strikes, a soup kitchen run by the union, provided food for workers on strike and their families. Two graveyards, known to Puhi residents as "Old Puhi Cemetery" (SIHP No. 50-30-11-B0006) and "Cement Pond," are located outside of but within 200 meters of the Project area. The cemetery is divided into two sections for Japanese and Filipino families despite the multi-cultural makeup of Puhi. According to Mr. Takahashi, other ethnicities chose to be buried elsewhere and many graves were removed by their 				

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Cultural Surveys Hawai'i Job Code: NIUMALU 2						
Management Summary	Management Summary						
<table border="1"> <tr> <td data-bbox="250 1230 370 1856"></td> <td data-bbox="371 1230 735 1856"> <p>families. "Cement Pond," exists approximately 200 meters north of the Project area and consists of three burials. Participants speculate that these burials are not of Puhi Camp residents but possibly of affluent Japanese. Kupuna Makanani recalls how it was possible to bury family members around one's residence when she was growing up.</p> <ol style="list-style-type: none"> Filipino migrants came to Hawai'i in the early 1900s as contract laborers or "<i>sakadas</i>," searching for a better place to live, relates Mr. Takahashi and Kupuna Makanani. Some graves at Old Puhi Cemetery are of Filipino veterans who have no known family with only crosses in the ground for their burial, according to Mr. Takahashi. He wishes that relatives of these veterans could find them, allowing younger generations to continue their ties to their culture and family tree. Mr. Chun reiterates that the sugarcane plantations would have displaced features of cultural significance within the Project area and also points out that the population centers would have been concentrated along the coast or along the Hule'ia River. Therefore, the likelihood of finding heiau and other cultural features would be higher along the coast than within the Project area. No participants had knowledge of any heiau within the study area. However, one participant noted a mo'olelo about fireballs, which reflect the presence of spirits in Native Hawaiian culture, near the Project area. Participants describe an abundance of water in the Project area. From Kilohana, water collects in reservoirs that once fed the plantations. Reservoirs and ditches were utilized by Puhi residents as food sources, and for recreational swimming. Mr. Takahashi asserts that a gate that controlled water flow to these water sources and regulated flow to prevent floods, still exists. Water subsequently flowed down through streams and rivers into Nāwiliwili Bay. The Hule'ia National Wildlife Refuge, which includes the Menchune Fishpond, is part of a watershed downstream of the Project area. Mr. Chun and Mr. White indicate that development has changed water flow patterns, as well as water quality. Mr. Chun attributes muddy water in Nāwiliwili Bay not only to heavy rains flooding the Hule'ia River but to development and land-based activities upstream, such as the previous sugar mill and the existing Marriott Hotel. Mr. Chun believes that fresh water has shaped the ecology of Nāwiliwili Bay in that corals do not grow in the presence of fresh water. He speculates that the sandy bottoms of the bay and the location of the coral reef further out in the bay, is due to the decreased salinity from the </td> </tr> </table> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihue District, Kaula's Island.</p> <p>TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p> <p>xi</p>		<p>families. "Cement Pond," exists approximately 200 meters north of the Project area and consists of three burials. Participants speculate that these burials are not of Puhi Camp residents but possibly of affluent Japanese. Kupuna Makanani recalls how it was possible to bury family members around one's residence when she was growing up.</p> <ol style="list-style-type: none"> Filipino migrants came to Hawai'i in the early 1900s as contract laborers or "<i>sakadas</i>," searching for a better place to live, relates Mr. Takahashi and Kupuna Makanani. Some graves at Old Puhi Cemetery are of Filipino veterans who have no known family with only crosses in the ground for their burial, according to Mr. Takahashi. He wishes that relatives of these veterans could find them, allowing younger generations to continue their ties to their culture and family tree. Mr. Chun reiterates that the sugarcane plantations would have displaced features of cultural significance within the Project area and also points out that the population centers would have been concentrated along the coast or along the Hule'ia River. Therefore, the likelihood of finding heiau and other cultural features would be higher along the coast than within the Project area. No participants had knowledge of any heiau within the study area. However, one participant noted a mo'olelo about fireballs, which reflect the presence of spirits in Native Hawaiian culture, near the Project area. Participants describe an abundance of water in the Project area. From Kilohana, water collects in reservoirs that once fed the plantations. Reservoirs and ditches were utilized by Puhi residents as food sources, and for recreational swimming. Mr. Takahashi asserts that a gate that controlled water flow to these water sources and regulated flow to prevent floods, still exists. Water subsequently flowed down through streams and rivers into Nāwiliwili Bay. The Hule'ia National Wildlife Refuge, which includes the Menchune Fishpond, is part of a watershed downstream of the Project area. Mr. Chun and Mr. White indicate that development has changed water flow patterns, as well as water quality. Mr. Chun attributes muddy water in Nāwiliwili Bay not only to heavy rains flooding the Hule'ia River but to development and land-based activities upstream, such as the previous sugar mill and the existing Marriott Hotel. Mr. Chun believes that fresh water has shaped the ecology of Nāwiliwili Bay in that corals do not grow in the presence of fresh water. He speculates that the sandy bottoms of the bay and the location of the coral reef further out in the bay, is due to the decreased salinity from the 	<table border="1"> <tr> <td data-bbox="893 1230 1013 1297"></td> <td data-bbox="1015 1230 1378 1297"> <p>influx of fresh water. Residents like Mr. White do not eat fish from the coast because of degraded water quality.</p> <ol style="list-style-type: none"> The traditional practice of lei (necklace of flowers)-making was and continues to be practiced by residents of the study area </td> </tr> <tr> <td data-bbox="893 1299 1013 1856">Impacts and Recommendations</td> <td data-bbox="1015 1299 1378 1856"> <p>The following cultural impacts and recommendations are based on a synthesis of all information gathered during preparation of the CIA. To help mitigate the potential adverse impacts of the proposed Project on cultural beliefs, practices, and resources, recommendations should be faithfully considered and the development of the appropriate measures to address each concern should be implemented.</p> <ol style="list-style-type: none"> In light of statements made by several participants in this study over the potential impact of future development at KCC on the historical remnants of the Old Puhi Camp, especially the Puhi Cemetery, it is recommended that: <ol style="list-style-type: none"> Large trees near the graves should be removed to prevent further destruction of headstones from falling branches. Although the cemetery is outside of the Project area, it is completely surrounded by the Project area. Participants recommend that KCC should assume the responsibility of protecting and maintaining the cemetery, including any financial obligations that incur. Regarding a burial treatment and preservation plan, Mrs. Sakoda prefers that burials be preserved in place. If burials must be removed, Mrs. Sakoda, Mr. Takahashi and Kupuna Makanani agree that a columbarium containing all the burials be built on site. The columbarium would protect the burials of The Puhi Cemetery and solve the problem of graveyard maintenance. Participants recommend that all families with ties to the cemetery and Project area should be consulted and included in any discussions regarding The Puhi Cemetery. Kupuna Makanani remembers from her childhood how it was possible to bury family members around one's residence, hinting to the possibility of discovering inadvertent burials in future development. Should cultural or burial sites be identified during future ground disturbance in the Project area, all work should immediately cease and the appropriate agencies notified pursuant to applicable law. Kupuna from the study area and former residents of Puhi Camp should also be consulted to </td> </tr> </table> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihue District, Kaula's Island.</p> <p>TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p> <p>xii</p>		<p>influx of fresh water. Residents like Mr. White do not eat fish from the coast because of degraded water quality.</p> <ol style="list-style-type: none"> The traditional practice of lei (necklace of flowers)-making was and continues to be practiced by residents of the study area 	Impacts and Recommendations	<p>The following cultural impacts and recommendations are based on a synthesis of all information gathered during preparation of the CIA. To help mitigate the potential adverse impacts of the proposed Project on cultural beliefs, practices, and resources, recommendations should be faithfully considered and the development of the appropriate measures to address each concern should be implemented.</p> <ol style="list-style-type: none"> In light of statements made by several participants in this study over the potential impact of future development at KCC on the historical remnants of the Old Puhi Camp, especially the Puhi Cemetery, it is recommended that: <ol style="list-style-type: none"> Large trees near the graves should be removed to prevent further destruction of headstones from falling branches. Although the cemetery is outside of the Project area, it is completely surrounded by the Project area. Participants recommend that KCC should assume the responsibility of protecting and maintaining the cemetery, including any financial obligations that incur. Regarding a burial treatment and preservation plan, Mrs. Sakoda prefers that burials be preserved in place. If burials must be removed, Mrs. Sakoda, Mr. Takahashi and Kupuna Makanani agree that a columbarium containing all the burials be built on site. The columbarium would protect the burials of The Puhi Cemetery and solve the problem of graveyard maintenance. Participants recommend that all families with ties to the cemetery and Project area should be consulted and included in any discussions regarding The Puhi Cemetery. Kupuna Makanani remembers from her childhood how it was possible to bury family members around one's residence, hinting to the possibility of discovering inadvertent burials in future development. Should cultural or burial sites be identified during future ground disturbance in the Project area, all work should immediately cease and the appropriate agencies notified pursuant to applicable law. Kupuna from the study area and former residents of Puhi Camp should also be consulted to
	<p>families. "Cement Pond," exists approximately 200 meters north of the Project area and consists of three burials. Participants speculate that these burials are not of Puhi Camp residents but possibly of affluent Japanese. Kupuna Makanani recalls how it was possible to bury family members around one's residence when she was growing up.</p> <ol style="list-style-type: none"> Filipino migrants came to Hawai'i in the early 1900s as contract laborers or "<i>sakadas</i>," searching for a better place to live, relates Mr. Takahashi and Kupuna Makanani. Some graves at Old Puhi Cemetery are of Filipino veterans who have no known family with only crosses in the ground for their burial, according to Mr. Takahashi. He wishes that relatives of these veterans could find them, allowing younger generations to continue their ties to their culture and family tree. Mr. Chun reiterates that the sugarcane plantations would have displaced features of cultural significance within the Project area and also points out that the population centers would have been concentrated along the coast or along the Hule'ia River. Therefore, the likelihood of finding heiau and other cultural features would be higher along the coast than within the Project area. No participants had knowledge of any heiau within the study area. However, one participant noted a mo'olelo about fireballs, which reflect the presence of spirits in Native Hawaiian culture, near the Project area. Participants describe an abundance of water in the Project area. From Kilohana, water collects in reservoirs that once fed the plantations. Reservoirs and ditches were utilized by Puhi residents as food sources, and for recreational swimming. Mr. Takahashi asserts that a gate that controlled water flow to these water sources and regulated flow to prevent floods, still exists. Water subsequently flowed down through streams and rivers into Nāwiliwili Bay. The Hule'ia National Wildlife Refuge, which includes the Menchune Fishpond, is part of a watershed downstream of the Project area. Mr. Chun and Mr. White indicate that development has changed water flow patterns, as well as water quality. Mr. Chun attributes muddy water in Nāwiliwili Bay not only to heavy rains flooding the Hule'ia River but to development and land-based activities upstream, such as the previous sugar mill and the existing Marriott Hotel. Mr. Chun believes that fresh water has shaped the ecology of Nāwiliwili Bay in that corals do not grow in the presence of fresh water. He speculates that the sandy bottoms of the bay and the location of the coral reef further out in the bay, is due to the decreased salinity from the 						
	<p>influx of fresh water. Residents like Mr. White do not eat fish from the coast because of degraded water quality.</p> <ol style="list-style-type: none"> The traditional practice of lei (necklace of flowers)-making was and continues to be practiced by residents of the study area 						
Impacts and Recommendations	<p>The following cultural impacts and recommendations are based on a synthesis of all information gathered during preparation of the CIA. To help mitigate the potential adverse impacts of the proposed Project on cultural beliefs, practices, and resources, recommendations should be faithfully considered and the development of the appropriate measures to address each concern should be implemented.</p> <ol style="list-style-type: none"> In light of statements made by several participants in this study over the potential impact of future development at KCC on the historical remnants of the Old Puhi Camp, especially the Puhi Cemetery, it is recommended that: <ol style="list-style-type: none"> Large trees near the graves should be removed to prevent further destruction of headstones from falling branches. Although the cemetery is outside of the Project area, it is completely surrounded by the Project area. Participants recommend that KCC should assume the responsibility of protecting and maintaining the cemetery, including any financial obligations that incur. Regarding a burial treatment and preservation plan, Mrs. Sakoda prefers that burials be preserved in place. If burials must be removed, Mrs. Sakoda, Mr. Takahashi and Kupuna Makanani agree that a columbarium containing all the burials be built on site. The columbarium would protect the burials of The Puhi Cemetery and solve the problem of graveyard maintenance. Participants recommend that all families with ties to the cemetery and Project area should be consulted and included in any discussions regarding The Puhi Cemetery. Kupuna Makanani remembers from her childhood how it was possible to bury family members around one's residence, hinting to the possibility of discovering inadvertent burials in future development. Should cultural or burial sites be identified during future ground disturbance in the Project area, all work should immediately cease and the appropriate agencies notified pursuant to applicable law. Kupuna from the study area and former residents of Puhi Camp should also be consulted to 						

	ensure proper cultural protocols are addressed.
3.	As there continues to be concern from former Puhī residents about the loss of the history and memories of Puhī Camp as the campus expands, it is recommended that a replica of a bulletin board used in the everyday life of Puhī Camp and containing the history of the camp be built and installed on KCC campus. The bulletin board continues to be a traditional cultural property in the memories of the study participants, who cherish its significance.
4.	Due to concerns expressed by participants about the possible impacts of the KCC expansion to the ecology and its interrelationship with the natural and cultural resources within and near the Project area, including consideration of the mauka-makai connection of the land, the possible impacts of land-based activities stemming from the college on water resources, Nāwiliwili Bay, and the ocean, as well as the potential contamination of the watershed and of the Hule'ia National Wildlife Refuge from the use of herbicides and methods of weed control at KCC, it is recommended that KCC limit or consider the use of non-toxic pesticides and employ the appropriate best management practices.
5.	Due to the current traffic congestion directly in front of the KCC campus attributed in part to vehicles turning into the Chevron gas station, and the likelihood that the traffic will likely be exacerbated by the KCC expansion, it is recommended that KCC work with the County or the State to install "the necessary signage or asphalt marking" as well as other safe means to improve the intersection flow.

Table of Contents

Prefatory Remarks on Language and Style	ii
Abbreviations	iii
Management Summary	iv
Section 1 Introduction	1
1.1 Project Background	1
1.2 Document Purpose	1
1.3 Scope of Work	2
1.4 Environmental Setting	2
1.4.1 Natural Environment	2
1.4.2 Built Environment	3
Section 2 Methods	8
2.1 Archival Research	8
2.2 Community Consultation	8
2.2.1 Sampling and Recruitment	8
2.2.2 Informed Consent Protocol	9
2.2.3 Interview Techniques	10
2.2.4 Study Limitations	10
2.3 Compensation and Contributions to Community	11
Section 3 Traditional Background	12
3.1 Overview	12
3.2 Wahi Pana	12
3.3 Mo'olelo	14
3.3.1 Nāwiliwili	14
3.3.2 Ahukini and Ninini	14
3.3.3 Kemano and Kapūnehu	15
3.3.4 Niumalu and Hule'ia	15
3.3.5 Menehune Fishpond	15
3.3.6 Kuhiau and Paukini	16
3.3.7 Kalanipu'u	16
3.3.8 Kihohaha	16
3.3.9 The Winds of Kaua'i	17
3.4 Mele (Songs)	17
3.4.1 Mele associating Nāwiliwili with the mokihana (<i>Pelea amisata</i>) flower	17
3.4.2 Lihū'e	19
3.5 Heiau	19
3.5.1 Kūhiau Heiau and Paukini Rock	19
3.5.2 Heiau at Kūki'i Point, Ninini and Ahukini	19
3.6 Freshwater Resources and Fishponds	21
3.6.1 Streams	21
3.6.2 Fishponds	22

3.7 Settlement and Subsistence	24
Section 4 Historical Background	27
4.1 Overview	27
4.2 Early Post-Contact Period	27
4.3 The Māhele (1848)	30
4.3.1 Nāwiliwili Ahupua'a	31
4.3.2 Niumalu Ahupua'a	31
4.3.3 Ha'iki Ahupua'a	32
4.4 Mid Nineteenth to Twentieth Century	32
4.4.1 Population	32
4.4.2 Changing District Names	34
4.4.3 Commercial Sugar Cane Agriculture	34
4.5 Modern Land Use	39
Section 5 Archaeology	48
5.1 Previous Archaeological Research	48
5.1.1 Previous archaeological studies in the study area	48
5.1.2 Previous archaeological studies within or adjacent to the Project area	51
5.2 Archaeological study for the proposed Project	53
Section 6 Community Consultation	57
6.1 SHPD Response	63
6.2 OHA Response	63
6.3 Statement by Mr. Frederic Ellamar	63
6.4 Statement by Ms. Amber McClure	63
Section 7 Interviews	64
7.1 Acknowledgements	64
7.2 Site Interview with Ms. Audrey Kawado, Kupuna Mabel Makanani, Mrs. Hirokane McClure, Ms. Amber McClure, and Mr. Dennis Takahashi	64
7.2.1 Strikes and Unions	70
7.2.2 Everyday Life in Puhī Camp	71
7.2.3 Foodways in Puhī Camp	75
7.2.4 Puhī Camp Memories	81
7.2.5 More Foodways	87
7.2.6 The Social Box or Box Dance	87
7.2.7 Recommendations	88
7.3 Mr. Charlie Pereira	90
7.4 Mr. Dennis Chun	93
7.5 Mr. Robert White	98
Section 8 Cultural Landscape	100
8.1 Hawaiian Habitation and Agriculture	100
8.2 Wahi Pana and Mo'olelo	102
8.3 Burials	102
8.4 Heiau	102
8.5 Marine and Freshwater Resources	103

8.5.1 Streams	103
8.5.2 Fishing	103
8.5.3 Loko I'a	104
8.5.4 He'enalu	105
Section 9 Summary and Recommendations	106
9.1 Results of Background Research	106
9.2 Results of Community Consultation	108
9.3 Impacts and Recommendations	111
Section 10 References Cited	113
Appendix A Glossary	A-1
Appendix B Common and Scientific Names for Plants and Animals Mentioned by Community Participants	B-1
Appendix C Authorization and Release Form	C-1
Appendix D Community Consultation Letter	D-1
Appendix E SHPD Response Letter	E-1
Appendix F OHA Response Letter	F-1

Cultural Surveys Hawai'i Job Code: NIUMALU 2	List of Figures	Cultural Surveys Hawai'i Job Code: NIUMALU 2	List of Figures
List of Figures		List of Figures	
Figure 1. 1996 U.S. Geological Survey 7.5 minute topographic map showing the Project area....	4	Figure 26. Portion of 1996 U.S. Geological Survey 7.5-Minute Series Topographic Map, Lihū'e quadrangle, showing previous archaeological studies in vicinity of the Project area	50
Figure 2. Aerial photograph showing the Project area (GeoEye 2001).....	5	Figure 27. Locations of historic resources found within portions of the Project area during a 1973 archaeological reconnaissance (adapted from Palama 1973:4)	55
Figure 3. Tax Map Key showing the Project area (Hawai'i TMK Service 1984)	6	Figure 28. Locations of historic resources found within the Project area during 1973 archaeological reconnaissance (adapted from Palama 1973:4; base map Google Earth 2012)	56
Figure 4. U.S. Department of Agriculture soil classification map of the Project area (Sato et al. 1973)	7	Figure 29. Mr. Takahashi shows Old Puhi Camp Cemetery (CSH 12/05/2011)	66
Figure 5. An 1881 map of Nāwiliwili Harbor by Lt. George G. Jackson, showing remnant of ancient heiau near Kūki'i Point; also note the area called "Kuhiau" near the courthouse (left-hand side), previous location of Kuhiau Heiau	20	Figure 30. Headstones at Japanese side of Puhi cemetery (CSH 12/05/2011)	66
Figure 6. Map showing heiau along the coastal areas within and near the study area (adapted from Damon 1931)	21	Figure 31. Mrs. Daphne Hirokane McClure discovers her cousin Alice's grave in Puhi Cemetery (CSH 12/05/2011)	68
Figure 7. Kalapaki Bay, showing two streams with red Xs marking their mauka locations and outlets to Kalapaki Bay; Koenā'awa-nui Stream is on the left (Source: Kauai Historical Society n.d.)	22	Figure 32. Grave of a two-month old baby in Puhi Cemetery (CSH 12/05/2011)	69
Figure 8. Menehune Fishpond, 1912 (Bishop Museum; Photographer, Ray Jerome Baker)	23	Figure 33. Mr. Takahashi shows the type of vines he used as a child (CSH 12/05/2011)	71
Figure 9. Menehune Fishpond still in use in 1934 (Kauai Historical Society 1934)	24	Figure 34. Kupuna Makanani tells of her childhood home, marked by mango tree in background (CSH 12/05/2011)	74
Figure 10. Niumalu Flats: Pond fields and fishponds (Source: Kaua'i Historical Society, Date Unknown)	26	Figure 35. A passion fruit flower grows in the Project area (CSH 12/05/2011)	76
Figure 11. An 1820s map of Kaua'i made by Hiram Bingham showing some place names from the Project area (courtesy of Kaua'i Museum)	28	Figure 36. A picture of <i>takenoko</i> growing in the Project area (CSH 12/05/2011)	78
Figure 12. Taro terraces in Nāwiliwili Valley (Kauai Historical Society, n.d.)	32	Figure 37. Mr. Takahashi and Mrs. McClure indicate the irrigation ditch that leads to a tunnel which they explored as children (CSH 12/05/2011)	78
Figure 13. Taro cultivated in the vicinity of Pu'ali Stream in 1905 (Kaua'i Historical Society, 1905)	33	Figure 38. Kupuna Makanani points out papaya flowers she used in lei (CSH 12/05/2011)	80
Figure 14. Map showing population estimate for Kaua'i in 1853 (adapted from Coulter 1931:16)	34	Figure 39. A non-native orchid growing near Project area identified by Dr. Lisa Gollin, a CSH ethnobotanist and researcher, to mostly likely be <i>Spathoglottis plicata</i> (Philippine ground orchid) (CSH 12/05/2011)	80
Figure 15. 1936 map of the political districts of the County of Kaua'i, Territory of Hawai'i	34	Figure 40. Aerial map with location of both Puhi Camp Cemetery and the "Cement Pond" cemetery, just outside the Project area (base map Google Earth 2012)	83
Figure 16. Lihue Plantation Sugar Mill, 1941 (U.S. National Archives and Records Administration)	35	Figure 41. One of three graves in the Cement Pond cemetery (CSH 12/05/2011)	84
Figure 17. Portion of 1878 Government Survey map by W.D. Alexander, showing location of the Project area and Grove Farm (shaded)	40	Figure 42. Mr. Pereira weaving a fishing net (CSH 12/08/2011)	90
Figure 18. Grove Farm showing its approximate location to the Project area, Lihū'e, Kōloa, and larger southwestern Kaua'i (adapted from Krauss and Alexander 1984)	41	Figure 43. Mr. Pereira with his first fishing net at the age of 12 (Courtesy of Mr. Pereira)	92
Figure 19. Plantation housing at Puhi Camp (Adapted from Riznik 1999)	42	Figure 44. Taro was grown along the Nāwiliwili Stream to half a mile up above the mill. (Bishop Museum 1886)	101
Figure 20. Single family plantation style house at Puhi Camp, 1920 (adapted from Riznik 1999)	42	Figure 45. Menehune ('Aleko) Fishpond today (Boynton n.d.)	105
Figure 21. Portion of 1910 U.S. Geological Survey Map, Lihū'e quadrangle, showing the Project area	43		
Figure 22. Portion of 1941 Lihue Plantation map showing the location of the Project area adjacent to the plantation and within Grove Farm	44		
Figure 23. Portion of 1963 U.S. Geological Survey 7.5-Minute Series Topographic Map, Lihū'e quadrangle, showing the Project area	45		
Figure 24. A 1965 aerial photograph showing the extent of sugar cane within the Project area and its vicinity (adapted from Foote et al. 1972)	46		
Figure 25. 1977-1978 U.S. Geological Survey aerial photograph of Lihū'e and vicinity showing the Project area	47		
Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.	xvii	Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.	xviii
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006		TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006	

Cultural Surveys Hawai'i Job Code: NIUMALU 2	List of Tables	Cultural Surveys Hawai'i Job Code: NIUMALU 2	Introduction
List of Tables		Section 1 Introduction	
Table 1. Kapu resources mentioned in Land Commission documents from the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū (source: Ching et al. 1973)	26	1.1 Project Background	
Table 2. Previous archaeological studies within and near the Project area	48	At the request of Wilson Okamoto Corporation and the University of Hawai'i Community Colleges, CSH conducted a CIA for the Kaua'i Community College Rezone Campus Project. The proposed Project is located in Puhi, in the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū, approximately two miles southwest of the County seat in Lihū'e District, Kaua'i Island, on TMK parcels: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006. Figures 1 and 2 show the Project area.	
Table 3. Historic Features Identified Within and Adjacent to the Project Area	54	The UHCC proposes to amend the State Land Use Boundary to re-designate the entire 199-acre KCC campus from its existing land use classification of Agricultural District to Urban District. The Project consists of the re-designation of land, as well as the construction of new buildings, additions to buildings, and new parking. A Special Permit was granted by the State Land Use Commission in 1973 for construction of the college campus within an approximately 99-acre parcel situated within TMK [4]-3-4-07-003. Most of the additional approximately 100 acres (within TMK [4]-3-4-07-01, -002, and -006) are undeveloped, except for two Hawaiian Language Immersion schools, Pūnana Leo o Kaua'i Pre-School and Kawaikini New Century Public Charter School.	
Table 4. Results of Community Consultation	57	The 199-acre campus, built on former sugar cane land, is owned by the State of Hawai'i's University of Hawai'i. The KCC is a two-year public community college and the only public institution of higher learning on the island of Kaua'i. It provides community services in addition to its educational mission. The KCC was originally established in 1929 as Kalaheo Vocational School and over time, the institution has developed into a comprehensive community college. In 1999, a Long Range Development Plan for the college was published which provides guidelines for the development of the campus to accommodate a population of 3,000 full-time students. Currently, the KCC has a population of approximately 700 full-time students; thus, much of the planned campus development has yet to be implemented. The land use re-designation of the KCC campus from Agricultural District to Urban District would be more consistent with its developed character.	
		1.2 Document Purpose	
		The Project requires compliance with the State of Hawai'i environmental review process (Hawai'i Revised Statutes [HRS] Chapter 343), which requires consideration of a proposed Project's effect on cultural practices. Through document research and ongoing cultural consultation efforts, this report provides information pertinent to the assessment of the proposed Project's impacts to cultural practices and resources (per the <i>Office of Environmental Quality Control's Guidelines for Assessing Cultural Impacts</i>). The impacts may include Traditional Cultural Properties (TCPs) of ongoing cultural significance that may be eligible for inclusion on the State Register of Historic Places. In accordance with Hawai'i State Historic Preservation Statute (Chapter 6E) guidelines for significance criteria in the Hawai'i Administrative Rules (HAR) §13-275 under Criterion E, an historic property determined to be significant shall:	
Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.	xix	Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.	1
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006		TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006	

Have an important value to the Native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group's history and cultural identity.

The document is intended to support the Project's environmental review and may also serve to support the Project's historic preservation review under HRS Chapter 6E and HAR Chapter 13-275.

1.3 Scope of Work

The scope of work for this CIA includes:

1. Examination of cultural and historical resources, including Land Commission documents, historic maps, and previous research reports, with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal, and other resources or agricultural pursuits as may be indicated in the historic record.
2. Review of previous archaeological work at and near the subject parcel that may be relevant to reconstructions of traditional land use activities; and to the identification and description of cultural resources, practices, and beliefs associated with the parcel.
3. Consultation and interviews with knowledgeable parties regarding cultural and natural resources and practices at or near the parcel; present and past uses of the parcel; and/or other practices, uses, or traditions associated with the parcel and environs.
4. Preparation of a report that summarizes the results of these research activities and provides recommendations based on findings.

1.4 Environmental Setting

1.4.1 Natural Environment

The Project area is located approximately 2 miles west of Līhu'e, mauka (inland) of Kaumuali'i Highway in Nāwiliwili, Niimalu, and Ha'ikū Ahupua'a, Līhu'e District, on the southeastern quadrant of the island of Kaua'i. The parcel is fairly inland, approximately 3 miles from the southeastern coast. The Project area is exposed to the prevailing northeast trade winds, and receives up to 254 cm (100 inches) of rainfall annually (Giambelluca et al. 1986). The Project area lies on moderately sloping lands that range from approximately 300 to 400 feet above mean annual sea level.

The Project area is composed of five different soil types as depicted in Figure 4. These are Puhī Salty Clay Loam, 0 to 3 percent slopes (PnB), Puhī Salty Clay Loam, 3 to 8 percent slopes (PnC), Puhī Salty Clay Loam (PnD), Marsh (MZ), and rough broken land (RR). The majority of the Project area is made up of PnC while PnD, MZ, and rRR soils are found along the western border of the property. The developed region of the school is composed of mostly PnB and PnC soils.

In pre-Contact times, vegetation in the Project area consisted of lowland mesic (relatively moist) forest, woodland and shrubland (Juvik and Juvik 1998). Most of this native ecosystem was disturbed and severely diminished by early historic activities, including commercial agriculture and ranching. According to Hammatt and Creed (1993), Land Commission documents describe middle 19th century Nāwiliwili Ahupua'a as having native vegetation of hau and wauke (paper mulberry) (See Appendix B for scientific names).

1.4.2 Built Environment

Development within the Project area consists of school and administrative buildings for KCC, Pūnana Leo o Kaua'i Pre-School, and Kawaikini New Century Public Charter School, and associated parking and roadways (Figure 2). The town of Pūhi lies immediately to the south across Kaumuali'i Highway.

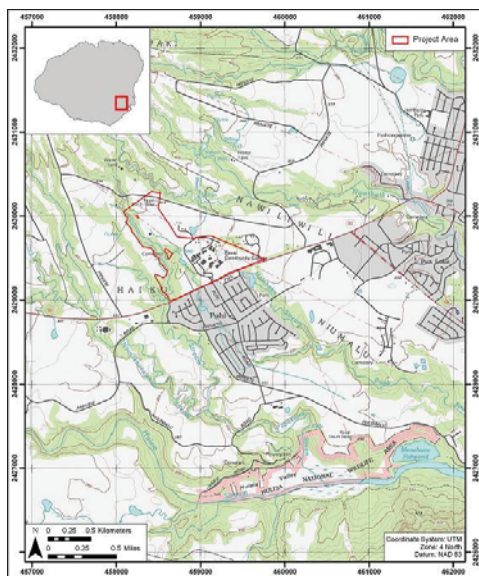
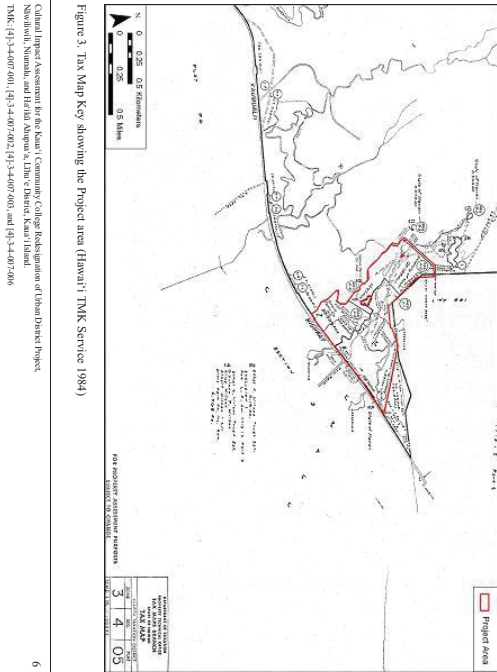


Figure 1. 1996 U.S. Geological Survey 7.5 minute topographic map showing the Project area



Figure 2. Aerial photograph showing the Project area (GeoEye 2001)

Figure 3. Tax Map Key showing the Project area (Hawaii's TMK Service 1984)



Section 2 Methods

2.1 Archival Research

Historical documents, maps and existing archaeological information pertaining to the Project area were researched at the CSH library and other archives including the University of Hawai'i at Mānoa's Hamilton Library, the State Historic Preservation Division (SHPD) library, the Hawai'i State Archives, the State Land Survey Division, and the archives of the Bishop Museum. Previous archaeological reports for the area were reviewed, as were historic maps and photographs and primary and secondary historical sources. Information on LCAs was accessed through Waionona 'Aina Corporation's Māhele Data Base (www.waionona.com) as well as a selection of CSH library references.

For cultural studies, research for the Traditional Background section centered on Hawaiian activities including: religious and ceremonial knowledge and practices; traditional subsistence land use and settlement patterns; gathering practices and agricultural pursuits; as well as Hawaiian place names and mo'olelo, mele (songs), oli (chants), 'ōlelo no'ēau (proverbs) and more. For the Historic Background section, research focuses on land transformation, development and population changes beginning in the early post-European Contact era to the present day (see Scope of Work above).

2.2 Community Consultation

2.2.1 Sampling and Recruitment

A combination of qualitative methods, including purposive, snowball, and expert (or judgment) sampling, were used to identify and invite potential participants to the study. These methods are used for intensive case studies, such as CIAs, to recruit people that are hard to identify, or are members of elite groups (Bernard 2006:190). Our purpose is not to establish a representative or random sample. It is to "identify specific groups of people who either possess characteristics or live in circumstances relevant to the social phenomenon being studied.... This approach to sampling allows the researcher deliberately to include a wide range of types of informants and also to select key informants with access to important sources of knowledge" (Mays and Pope 1995:110).

We began with purposive sampling informed by referrals from known specialists and relevant agencies. For example, we contacted the SHPD, Office of Hawaiian Affairs (OHA), Kaua'i/Ni'ihau Island Burial Council (KNIBC), and community and cultural organizations in the Lihue District for their brief response/review of the Project and to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the study area and vicinity, cultural and lineal descendants of study area, and other appropriate community representatives and members. Based on their in-depth knowledge and experiences, these key respondents then referred CSH to additional potential participants who were added to the pool of invited participants. This is snowball sampling, a chain referral method that entails asking a few key individuals (including agency and organization representatives) to provide their comments

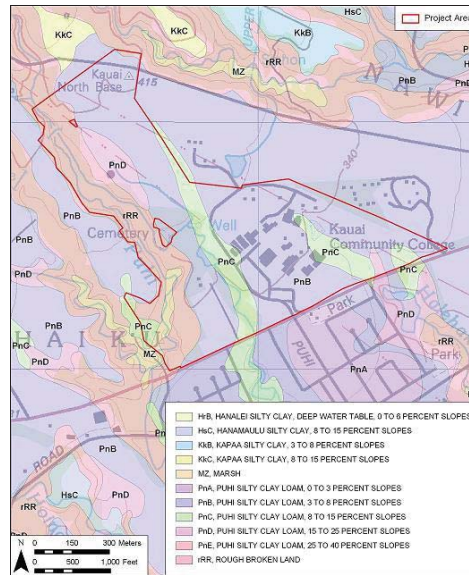


Figure 4. U.S. Department of Agriculture soil classification map of the Project area (Sato et al. 1973)

and referrals to other locally recognized experts or stakeholders who would be likely candidates for the study (Bernard 2006:192). CSH also employs expert or judgment sampling which involves assembling a group of people with recognized experience and expertise in a specific area (Bernard 2006:189-191). CSH maintains a database that draws on over two decades of established relationships with community consultants: cultural practitioners and specialists, community representatives and cultural and lineal descendants. The names of new potential contacts were also provided by colleagues at CSH and from the researchers' familiarity with people who live in or around the study area. Researchers often attend public forums (e.g., Neighborhood Board, Burial Council and Civic Club meetings) in (or near) the study area to scope for participants. Please refer to Table 4, Section 6, for a complete list of individuals and organizations contacted for this CIA.

CSH focuses on obtaining in-depth information with a high level of validity from a targeted group of relevant stakeholders and local experts. Our qualitative methods do not aim to survey an entire population or subgroup. A depth of understanding about complex issues cannot be gained through comprehensive surveying. Our qualitative methodologies do not include quantitative (statistical) analyses, yet they are recognized as rigorous and thorough. Bernard (2006:25) describes the qualitative methods as "a kind of measurement, an integral part of the complex whole that comprises scientific research." Depending on the size and complexity of the project, CSH reports include in-depth contributions from about one-third of all participating respondents. Typically this means three to twelve interviews.

2.2.2 Informed Consent Protocol

An informed consent process was conducted as follows: (1) before beginning the interview the CSH researcher explained to the participant how the consent process works, the Project purpose, the intent of the study and how his/her information will be used; (2) the researcher gave him/her a copy of the Authorization and Release Form to read and sign (Appendix C); (3) if the person agreed to participate by way of signing the consent form or providing oral consent, the researcher started the interview; (4) the interviewee received a copy of the Authorization and Release Form for his/her records, while the original is stored at CSH; (5) after the interview was summarized at CSH (and possibly transcribed in full), the study participant was afforded an opportunity to review the interview notes (or transcription) and summary and to make any corrections, deletions or additions to the substance of their testimony/oral history interview; this was accomplished either via phone, post or email or through a follow-up visit with the participant; (6) the participant received the final approved interview and any photographs taken for the study for record. If the participant was interested in receiving a copy of the full transcript of the interview (if there is one, as not all interviews are audio-recorded and transcribed), a copy was provided. Participants were also given information on how to view the report on the OEQC website and offered a hardcopy of the report once the report is a public document.

If an interviewee agreed to participate on the condition that his/her name is withheld, procedures are taken to maintain his/her confidentiality (see Protection of Sensitive Information below).

[illegible]

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Traditional Background	Cultural Surveys Hawai'i Job Code: NIUMALU 2	Traditional Background
<p>Hawaiian historian Samuel Kamakau (1961) identified Hā'upu as a Kaua'i chief sent by Ka'umuali'i to placate Kamehameha I on O'ahu.</p> <p>Līhu'e, literally translated as "cold chill", became the modern political name for the traditional moku of Puna. Historical documents suggest the name Līhu'e was first applied to this area by Kaikioewa (Governor of Kaua'i) in the 1830s, perhaps after Kaikioewa's upcountry residence on the island. On the other hand, Nathaniel Emerson's translation of the famous oli cycle of Hi'iaka and Pele mentions Līhu'e with the other main place names of this area. It is also well known that Līhu'e was a traditional settlement area near the current Schofield Barracks on O'ahu.</p> <p>Kilohana, source of Nāwiliwili and Hulē'ia Streams, is associated with mo'olelo of a boy named Lahi and his uncle; there are multiple possible meanings of the name Kilohana (Pukui et al. 1974 list three: "lookout point," "outer tapa," or "best, superior."</p> <p>Puhi is a village and stream in the Līhu'e District that literally translates as, "blow." Ka-holi-a-Kāne (the sprouting [made] by Kāne), was a shark god who lived in a cave in Puhi.</p> <p>3.3 Mo'olelo</p> <p>The presence of many mo'olelo in the study area suggest that the place was once well-populated. The following section presents mo'olelo from the region.</p> <p>3.3.1 Nāwiliwili</p> <p>The menehune were known to live in the Nāwiliwili area:</p> <p>It was one of the favorite playgrounds of the tribe of Menehune, the little brown work-people who played as hard as they worked. And again it is William Hyde Rice, who, more than any other teller of stories, has kept for us old tales of this happy playground. (Damon 1931:395-396)</p> <p>3.3.2 Ahukini and Ninini</p> <p>According to Wichman (1998), Ahukini Heiau, located near the study area, was named for Ahukini-a-la'a (who lived about A.D. 1250), one of three sons of La'a-mai-kahiki. An ancestor of the Kaua'i chiefly lines, with a close relationship to O'ahu, Ahukini was also ali'i nui (supreme chief) of the Puna District of Kaua'i (Wichman 2003).</p> <p>In the 1920s, the Hawaiian legend chronicler Rice (1974), a life-long resident of Kaua'i, published this mo'olelo about Ahukini in the story of "The Goddess Pele":</p> <p>Two brothers of Pele, who had come from foreign lands, saw Lohiau's body lying as a stone where the lava flow had overtaken him. Pity welled up in their heart and they brought Lohiau to life again. One of these brothers made his own body into a canoe and carried the unfortunate Lohiau to Kauai, where he was put ashore at Ahukini. (Rice 1974: 14)</p>		<p>3.3.3 Kemamo and Kapūnohu</p> <p>Niumalu translates as "shaded coconut trees" and derives from the mo'olelo involving Kemamo and Kapūnohu (Wichman 1998:57). Kemamo, known for his ability to shoot a rock from his sling five miles and never missing a shot, is said to have resided on the Kona/Puna Districts boundary. During Kapūnohu's travels through the islands he was warned of Kemamo's challenges to travelers. Upon their meeting, Kapūnohu agreed to a contest with Kemamo, each betting his most prized possession. Kapūnohu bet his spear and Kemamo his sling. Kalalea peak, visible from their location, was the target. Kemamo slung a rock that failed to reach Kalalea and fell near Anahola. Kapūnohu's spear shaded the coconut trees, which led to the naming of Niumalu, "dipped into the Wailua River, hence the name Waiehu, and finally pierces the mountain at Kalalea leaving a large hole that was visible until just a few years ago" (Wichman 1998:57).</p> <p>3.3.4 Niumalu and Hulē'ia</p> <p>Ching et al. (1973:28) recount, without attribution, the following mo'olelo about the origins of 'Alekoko Fishpond in Niumalu Ahupua'a:</p> <p>Living in the valley between the Kipu River [Hulē'ia] and Niumalu resided Alekoko, the brother, and Ka-lala-lehua, the sister, young chiefs of handsome countenance, who agreed together to construct a fishpond each for themselves. The work on these fishponds was done by the menehunes, it was done in one night (during the night of akua, on which there was a full moon). Stones for the walls were gathered from as far away as the sea beach of Makali.</p> <p>(The pond of the brother was built on one side of the river, while the pond of the sister was built in the opposite bend in the river below Kalaeakapapa Point. The menehune women built the sister's pond, and the menehune men built the brother's pond.) As dawn approached the menehunes fled to the mountains. (The sister's pond was never completed.)</p> <p>The sister, seeing her fishpond was incomplete, was grieved and wept at its unfinished state, while the brother rejoiced at the completion of his. The stones gathered for the sister's pond still remain in the stream to this day.</p> <p>Ching et al. (1974) describe mo'olelo associated with Hulē'ia, suggesting its close pili (association) with O'ahu:</p> <p>The earliest mention of the [Niumalu] area is legendary dating to 1785. After Kahekili defeated Oahu a number of chiefesses of highest rank were killed. Kekelaokalani made her escape to Kaua'i bringing with her some Oahu soil, part of which she deposited at Hulaia [Huleia].</p> <p>3.3.5 Menehune Fishpond</p> <p>'Alekoko Fishpond was named after Chief 'Alekoko. Today, it is known as Menehune Fishpond and its walls are believed to have been built in one night by menehune (legendary race of small people who worked at night, building fishponds). Chief 'Alekoko and his sister,</p>	
Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Līhu'e District, Kaua'i Island. TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006	14	Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Līhu'e District, Kaua'i Island. TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006	15

Cultural Surveys Hawai'i Job Code: NIUMALU 2

Traditional Background

Chiefess Ka-lālā-lehua, requested the construction of the fishpond across the Hulē'ia River. The menehune agreed to construct the 825-meter dirt stone-faced dam only if Chief 'Alekoko and his sister promised to stay in their home and not watch the menehune at work. The two agreed. The menehune formed two lines stretching from the Wahiawa Plains to the Hulē'ia River and passed stone blocks through the night. Before morning, Chief 'Alekoko could no longer just listen to the menehune at work and the shifting of the stone. He made a small hole in the house's grass thatch and peeked through. The menehune dropped their stones, washed their hands, and left the fishpond incomplete as a reminder that promises are not to be broken. The chief's name and that of the fishpond, 'Ale-koko, translates as "rippling blood" and is said to refer to the bleeding hands of the Menehune from passing the rough stone that they did not have time to polish (Wichman 1998:57-58). The pond was later completed by Chinese (Rice 1923:37).

3.3.6 Kuhiau and Paukini

Several historic documents discuss the close connection between Kuhiau Heiau, reportedly the largest heiau in Kaua'i, and the pōhaku (rock) known as Paukini, which marks the ahupua'a boundary between Nāwiliwili and Kalapaki. Damon (1931:393) writes:

[Kuhiau Heiau] ... was in its day the largest and most far-famed temple on the island. Below it, in the bay, is still the rock called Paukini, which was said to be its companion or sister heiau, and was probably also the home of the kahuna [priest], or priest, of Kuhiau. In ancient times this rock was connected with the shore near the site of the former boat landing.

3.3.7 Kalanipu'u

This pu'u kāheha directly above Nāwiliwili Bay is associated with mo'olelo about Pele's older sister Nā-maka-o-Kaha'i, who planted 'awa (kava) and mai'a (bananas) upon it (Pukui et al. 1974).

3.3.8 Kilohana

Damon (1931) described Kilohana as a famous nesting place of 'uwa'u (dark-rumped petrel), a chiefly delicacy. The top of Mauna Kahili, the peak to the west of Kilohana, was a sacred burial place of Hawaiian chiefs. Kilohana is also associated with the menehune:

One of their favorite play places was the little hill of Po-po-pii, Rounded-for climbing-up. This they had themselves built on the top of Kilohana and never were they more delighted than when they could climb it over and over again for the sheer fun of rolling down its sides, frolicking and laughing as they rolled. It was such a sport that their gleeful shouts carried clear across the Kauai channel to the southeast and startled birds at Kahuku on the island of Oahu.

Once, a Menehune called Ka-uki-uki, The-man-of-wrath, boasted that he could climb to the top of this hill at Kilohana and snare the legs of the moon. Ridiculed by his fellow tribesmen, he valiantly attempted to make good his boast, and was turned into a stone when he failed of achievement. For many years this stone was recognized by Hawaiians as a kupua, or demigod, and offerings of lehua-

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Līhu'e District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

16

Cultural Surveys Hawai'i Job Code: NIUMALU 2

Traditional Background

blossoms and fragrant maile [a native twining shrub] leaves were laid upon it in passing, that rain and fog might not hinder the errand which carried the people into the mountains. (Damon 1931:395-396)

Beckwith (1970:331) *Hawaiian Mythology* recounts Rice's (1923) telling of the "Wainiha Story," a mo'olelo about bird hunters who lure a giant to his death; and kōa (warriors) who come to avenge the giant's murder only to be thrown to their deaths by the young bird hunter Lahi:

Lahi and his uncle Kane-alohi live in the Wainiha valley and go up to Kilohana to catch uwa'u birds for food, a kind of bird that seeks its nest in the cliffs by day, blinded by the light. Their first enemy is a "giant" whom they lure into a hole and kill. Their next is the chief with "four hundred" soldiers who objects to the depredations among the birds. They sit on a rock eating birds and watching the rippling of the water below for men approaching... The boy hides at the pass and throws all four hundred men over the cliff. The chief comes last and, recognizing Lahi as his own son, invites him to the village. He prepares a trap, but this boy discovers and, burning down the house with his treacherous father and followers within, takes over the rule of the land.

3.3.9 The Winds of Kaua'i

One of the oldest and most famous mo'olelo in Hawaiian oral tradition describes the travels and exploits of Pele, the Hawaiian volcano goddess, and one of her sisters, Hi'iakaikapoliupele (more commonly known simply as Hi'iaka). Pele, in her lengthy oli of literally hundreds of named winds of Kaua'i, lists those of Nāwiliwili, Kalapaki, Ahukini, Līhu'e, Kapaia, and Hanamā'ulu (Nogelmeier 2006):

He Hu'eone ka makani o Nāwiliwili	The wind of Nāwiliwili is a Hu'eone
He Wāmua ka makani o Kalapaki	The wind of Kalapaki is a Wāmua
He 'Ehukai ka makani o Ahukini	The wind of Ahukini is an 'Ehukai
He Pahola ke kiu ho o kii makani lele kula o Līhu'e	A Pahola wind is the scout that fetches the winds sweeping the Līhu'e plains
He Kuli'āhiu ka makani o Kapaia	The wind of Kapaia is a Kuli'āhiu
He Ho'oluako'inche ka makani o Hanamā'ulu	The wind of Hanamā'ulu is a Ho'oluako'inche

3.4 Mele (Songs)

3.4.1 Mele associating Nāwiliwili with the mokihana (*Pelea anisata*) flower

Bowers (1984) compiled the lyrics (in Hawaiian and English) to over two dozen mele about Kaua'i, several of which mention Nāwiliwili, Līhu'e, and Niumalu. These mele are attributed to a variety of composers (sometimes there is no specific person listed); most of these songs were

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Līhu'e District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

17

probably written in the 20th century, based on their style (e.g., the second song below uses the term “uapo,” also spelled in some sources as “uwapo,” defined by Pukui and Elbert 1986 as a historically-introduced (i.e., “pidgin”) term for “wharf”). Regardless of their age—whether they are decades or centuries old—these songs are cherished by many people, and speak to a great love for the beauty of Nāwiliwili, in particular.

The following song (Bowers 1984:3), attributed to “Haunani Kahalewai’s Trio with the Waikiki Serenaders” (Kamehameha School Hawaiian Music Collection Record No. 574), associates Nāwiliwili with the nearby Hā’upu and the mokihana flower:

Kaulana mai nei a'o Nāwiliwili	Renowned is Nāwiliwili
He nani nō ninini	Attractive even to Ninini
He nani maoli nō	A beauty unsurpassed.
Kuahiwi nani 'oe a'o hā'upu	Splendid ridge of Hā'upu
Ka pua mokihana 'eū	The mokihana flower
Ka pua nani o Kaula'i	The beautiful flower of Kaula'i.
Ho'ohihi ka mana' o iā Kaula'i	The mind is entranced with Kaula'i
Eō mai k oleo aloha	Let your beloved voice respond
Ke kani a'o pī'ilani	The sound of Pī'ilani.
Ha'ina 'ia mai ana ka puana	The refrain has been told
Kaulana mai nei Nāwiliwili	Renowned is Nāwiliwili
He nani maoli nō	A beauty unsurpassed.

Another mele entitled “Kaulana ka inoa a'o Kaula'i” (Bowers 1984:2), attributed to a recording (*Music of Old Hawaii*) by the famous Sons of Hawai'i, again mentions the mokihana:

Kaulana ka inoa a'o Kaula'i	Famous is the name of Kaula'i
Ku'u lei mokihana poia 'ole.	My unforgettable mokihana lei.
Ku kilakila 'oe Wai'ale'ale	Wai'ale'ale you stand majestic
Me ka nani kaulana 'o Nāwiliwili.	With the famous beauty of Nāwiliwili.
Laua'e o makana ka'u aloha	I love the fragrant fern of Makana
Me ka uapo nani a'o Niumalu	With the fine wharf of Niumalu.
E pī'ina I ke 'ike a'o Kipu	Ascending to see Kipu
Me ka wai 'amanapapa e kaulana nei.	With the famous glittering waterfall.
I aloha iā nua' Waiamea	Beloved is Waiamea
Me ke one kani la a'o Nohihi	With the barking sands of Nohihi.
Pu'ili kō aloha ma ku'u poli	Your love is held fast in my heart
Honehōne kōu leo me he ipo ala.	Sweet your voice like a sweetheart.
Hea aku no au, e o mai 'oe	I call, you answer
Lei ana Kaula'i ka mokihana	Kaula'i, decked in mokihana.

The mokihana is a native (endemic) tree, found only on Kaula'i, considered traditionally to be a variety of 'alani (a general term for citrus tree). The lei made of mokihana is a traditional symbol of the island of Kaula'i. According to Abbott (1992), the mokihana were used to make the most treasured and rare seed lei in the Hawaiian Islands.

3.4.2 Lihue

The song, “Lihue” speaks of the rustling leaves of Niumalu:

Aloha 'ia no au Lihue	Beloved is Lihue
I ka ne'e mai a ka ua Paupili	When the Paupili rain comes.
Ua pili no au me ku'u aloha	I cling to my beloved
Me ke kau nehe mai au Niumalu.	Under the soft rustling [leaves] of Niumalu [Clark 1990:2].

3.5 Heiau

Historic maps show that only one heiau, Kuhiau Heiau, existed along the shoreline of the study area (Figures 5 and 6) in Nāwiliwili Ahupua'a. This heiau is thought to be associated with its sister heiau, Paukini Rock, which marks the boundary between Nāwiliwili and Kalapaki. Three other heiau nearby, as shown in Figures 5 and 6, were located in Kalapaki Ahupua'a, directly north of Nāwiliwili. These include remnants of an unknown heiau at Kūki'i Point, and two heiau along rocky points at Ninini and Ahukini. Physical evidence of these heiau have been obliterated by historic activities and more recent development. Nevertheless, the sacred nature of the landscape in and around these heiau, are still appreciated.

3.5.1 Kuhiau Heiau and Paukini Rock

Kuhiau Heiau, also known as SIHP No. 99, was recorded in Bennett's (1931) archaeological survey in the late 1920s. Figure 5 shows that Kuhiau Heiau was located near the courthouse, near the ocean. Two decades prior to Bennett's study, Thrum had described this heiau as already “long since destroyed” (Bennett 1931:124). According to Thrum:

[a] large paved heiau, whose enclosure covered an area of about four acres...The rock Paukini, now separated from but formerly connected with the shore, was where the kahuna lived. This is said to have been the largest and most famous on Kauai in its day. (Bennett 1931:124)

Damon (1931) describes Kuhiau Heiau's close connection with Paukini, the pōhaku that marks the boundary between Nāwiliwili and Kalapaki. He writes:

[Kuhiau Heiau] ... was in its day the largest and most far-famed temple on the island. Below it, in the bay, is still the rock called Paukini, which was said to be its companion or sister heiau, and was probably also the home of the kahuna, or priest, of Kuhiau. In ancient times this rock was connected with the shore near the site of the former boat landing. Damon (1931:393)

3.5.2 Heiau at Kūki'i Point, Ninini and Ahukini

An 1881 map of Nāwiliwili Harbor in Figure 5, depicts “remnants of an ancient heiau” near Kūki'i Point. Ninini Heiau (SIHP No. 100) and Ahukini Heiau (SIHP No. 101) were both

described by Bennett as totally destroyed. According to Thrum (Bennett 1931:125), Ahukini was “[a] heiau of medium size; foundations only now remain.”

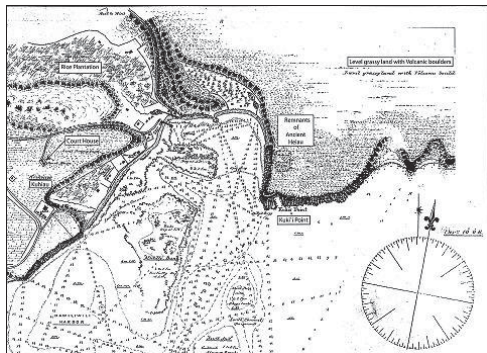


Figure 5. An 1881 map of Nāwiliwili Harbor by Lt. George G. Jackson, showing remnant of ancient heiau near Kūki'i Point; also note the area called “Kuhiau” near the courthouse (left-hand side), previous location of Kuhiau Heiau

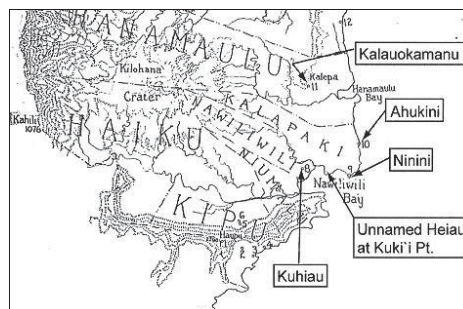


Figure 6. Map showing heiau along the coastal areas within and near the study area (adapted from Damon 1931)

3.6 Freshwater Resources and Fishponds

3.6.1 Streams

Nāwiliwili and Hule'ia Streams originate on the slopes of Kilohana Crater, and (Hule'ia only) upon more distant Wai'ale'ale. The meandering streams of Nāwiliwili and Hule'ia have formed extensive natural (alluvial) terraces along their lengths. These abundant terraces consist of small level areas formed along major meanders that could be planted with relatively little preparation of the landscape. Higher terraces were irrigated by diverting some of the stream flow, which was carefully managed by community leaders or konohiki. It is likely that there were once other smaller drainages between the Nāwiliwili and Hule'ia Streams and that native Hawaiian planters used and modified these as 'auwai. Most of these smaller drainages have been changed beyond recognition by historic and modern land use and development. However, it appears that some of these smaller streams were still flowing into the early 20th century. For example, two smaller streams, Kōena'awa nui and Kōena'awa iki, are identified in Land Commission documents as draining into Kalapaki Bay (Figure 7).



Figure 7. Kalapaki Bay, showing two streams with red Xs marking their mauka locations and outlets to Kalapaki Bay; Koena'awa-nui Stream is on the left (Source: Kauai Historical Society n.d.)

3.6.2 Fishponds

3.6.2.1 Menehune Fishpond/ Niumalu Fishpond/ Alekoko Fishpond

Menehune Fishpond, also known as Alekoko in Land Commission documents and alternatively, Alekoko or 'Alekoko in other sources (Kikuchi 1987), was first described and mapped scientifically by Bennett in the late 1920s. According to Handy and Handy (1972:426), Bennett incorrectly named this site Niamalu (Niumalu) Fishpond probably due to the proximity of nearby Niumalu Ahupua'a. It is located along the Hule'ia Stream near its mouth to Nāwiliwili Bay. Kikuchi (1973, 1987) considered it a loko wai (fresh-water pond or lake) class fishpond because of its inland location along a meander of the Hule'ia Stream; other sources (perhaps inaccurately) consider it a loko kuapā (fishpond made by building a wall on a reef). The overall area of the pond has apparently varied through time from as small as 32 acres to as large as 39 acres. Figure 8 shows the fishpond in 1912 and by 1934, it was still in use (Figure 9). Menehune Fishpond was placed on the National Register of Historic Places in 1973 as SIHP No. 50-30-11-501.

Bennett (1931:124) describes the dimensions and construction features of Niamalu [sic] Fishpond:

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

22

The Niamalu [sic] fish pond consists principally of a stone-faced, dirt wall that runs for over 900 yards and cuts off a large bend in the river for use as a fish pond. It is today [in the early 1930s] used both for fish and ducks. Cement walls and iron gates have obscured any old method of controlling the water or the fish.

This fishpond is associated with the mo'olelo of the brother and sister shark guardian spirits named 'Alekoko and Kahalahue, who were said to have given the task of construction to the menehune (Kaiwi 1921). According to Rice (1974), it is said the menehune failed to completely finish their task, thus leaving a small opening that was later finished by people who did an inferior job of it; this inferior stone-work being still visible in historic times. See Section 3.3.5 for a more detailed description of the mo'olelo associated with the fishpond.

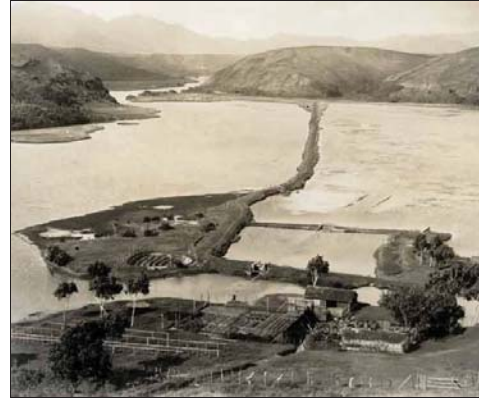


Figure 8. Menehune Fishpond, 1912 (Bishop Museum; Photographer, Ray Jerome Baker)

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

23



Figure 9. Menehune Fishpond still in use in 1934 (Kauai Historical Society 1934)

3.7 Settlement and Subsistence

The ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū were permanently inhabited and intensively used in pre-Contact and early historic times, based on archaeological, historical, and oral-history documentation. The archaeological record of early Hawaiian occupation in this area indicates a date range of c. A.D. 1100 to 1650 for pre-Contact Hawaiian habitations (Walker et al. 1991). A radiocarbon date of A.D. 1170-1400 was obtained from excavated sediments near the mouth of Hanamā'ulu Stream, north of Nāwiliwili. Mo'olelo associated with the study area are also plentiful suggesting early settlement of the area by a viable Native Hawaiian population. The abundance of water and the presence of distinguished fishponds along the coast and water systems is testament to early settlement.

The coastal areas were the concentration of permanent house sites and temporary shelters, heiau, including ko'a (shrine) and kū'ula (both types of relatively small shrines dedicated to fishing gods), numerous trails, and fishponds. There were numerous house sites and intensive cultivation areas within the valley bottoms of Nāwiliwili and Hule'ia Streams. According to Hammatt and Creed (1993:22), Land Commission documents indicate the shoreline location of several house lots in Nāwiliwili Ahupua'a, known as Papalinahoa. Kikuchi (1973) states this was the name of "an early chief," but Hammatt and Creed (1993) suggest it may also have been the name of an "ili or of the konohiki. Papalinahoa was also the name of an 'auwai on the south side of Nāwiliwili Stream, associated with LCA 3566 (Hammatt and Creed 1993). Before the historic era, there was a village at Kalapaki (probably between Kalapaki Beach and Ahukini), and another, likely larger, at Nāwiliwili to the southwest. Another village was located near the mouth of the Hanamā'ulu Stream.

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

24

Land Commission documents indicate a land use pattern that may be unique to this part of the island, or to Kaua'i, in general, in which lo'i and kula lands are described in the same 'āpana, with houselots in a separate portion. In most places, kula lands are defined as drier landscapes and they do not typically occur next to, and among, wetter lo'i lands. The dryland areas (kula) of these ahupua'a contained native forests and were cultivated with crops of waikē, 'uala (sweet potatoes), and ipu (bottle gourd). According to Hammatt and Creed (1993:23), "there are several [LCA] references to other lo'i next to the beach which indicate wetland cultivation extending right to the shoreline." This is a type of land use that seems to be fairly unique to Kaua'i.

Handy describes the study area in 1935 as a land with many lo'i and good fishing. Handy (1940:67) describes Nāwiliwili Valley in his chapter on the main kalo (taro) growing locations in Puna, Kaua'i:

For 3 miles inland from the sea the Nāwiliwili River twists (*wiliwili*) through a flat valley bottom which was formerly all in terraces. Inland, just above the bay, three Hawaiian taro planters cultivate wet taro in a few small terraces. Most of the land is [now] in pasture. There are one small cotton plantation and several small garden plots. For about a half mile below and a half mile above the mill the valley is mostly filled with plantation camp and other structures, with many small clumps of bananas, some garden plots, and a few old breadfruit trees. The old terrace area extended half a mile up into the small valley that opens out northwest just above the mill. Approximately the last mile of flat valley bottom, before the river beds becomes a narrow gulch, used to be in terraces but is now pasture and ranch land.

Handy describes Niumalu Ahupua'a as having among the best fishing grounds on the island of Kaua'i. Handy relates:

Niumalu is a tiny ahupua'a, a mere wedge between Nāwiliwili and Haiku, but it was, and is, one of the most important fishing localities on Kauai, and contained a fairly large area of terraces along the lower mile of Puali Stream. There were a few terraces at the lower end of Halehaka Stream where it joins the Puali about 1.5 miles inland. (1940:67)

Handy and Handy (1972:427) additionally note:

...southward of the Huleia River and harbor [Niumalu] ... had fairly large lo'i areas at the seaward ends of its two streams, Puali and Halehaka. Niumalu was noted in the past, as it is today, for being one of the most important fishing localities on Kauai.

Hule'ia Valley, which is defined by Kipū Ahupua'a (south bank) and Ha'ikū Ahupua'a (north bank), is also described:

[Ha'ikū] contains the broad delta plain of the Huleia River, 1.5 miles long and about a half wide at its widest point. This area was all in terraces. One large section is now in rice, and four small terraces belonging to four Hawaiian taro planters are in wet taro... Small terrace areas existed along the course of the

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

25

Huleia for at least 2.5 miles above the delta area... Where the highway crossed the Huleia River at Halfway Bridge, there are groups of old terraces, old breadfruit, and mango trees, indicating that here was a group of *kuleana* something over 6 miles inland from the mouth of the river. (Handy 1940:66)

Ching et al. (1973: Appendix 6) list kapu (prohibited) resources for the ahupua'a of the study area (Table 1) which were gleaned from Land Commission documents on these areas. These were akule for Nāwiliwili and Niumalu Ahupua'a and 'opihi (limpet) for Ha'ikū Ahupua'a. Kapu wood was koa for Nāwiliwili, 'ōhi'a for Niumalu, and none was listed for Ha'ikū.

Table 1. Kapu resources mentioned in Land Commission documents from the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū (source: Ching et al. 1973)

Ahupua'a	Kapu fish	Kapu wood
Nāwiliwili	Akule	Koa
Niumalu	Akule	'Ōhi'a
Ha'ikū	'Opihi	



Figure 10. Niumalu Flats: Pond fields and fishponds (Source: Kaua'i Historical Society, Date Unknown)

Section 4 Historical Background

4.1 Overview

This section briefly summarizes the historical background of the study area from the time of the arrival of Captain Cook in Hawai'i in 1778 or the early post-Contact period, to modern times.

4.2 Early Post-Contact Period

The first written accounts of Kaua'i are from travelers, missionaries, and surveying expeditions. Missionary accounts of the first half of the nineteenth century provide the majority of the early written records for this region of Kaua'i. Hiram Bingham's 1820s map (Figure 11) of the island identifies the place names Hulaia [Hulē'ia], Niumaru [Niumalu], Haitu [Ha'ikū], and Tipu [Kipū].

Damon (1931:401) wrote about Bingham's 1824 observations from his memoir, *A Residence of Twenty-One Years in the Sandwich Islands*, published in 1847. According to Damon, Bingham described the lands near Kilohana, a summit and crater in the Lihue District near the Project area, as "finer country than the western part of the island." He describes:

In 1824, when walking around the island from Waimea to counsel the people after the wreck of *The Cleopatra's Barge*, Rev. Hiram Bingham crossed from Hanapepē, as has been seen, over the old upland trail back of Kilohana, and wrote of it as 'a country of good land, mostly open, unoccupied and covered with grass, sprinkled with trees, and watered with lively streams that descend from the forest-covered mountains and wind their way along ravines to the sea, —a much finer country than the western part of the island.'

In the 1830s, another missionary, Rev. Peter Gulick, was living on Kaua'i at Waimea and Kōloa. He made the following observation about the kind of provisions one could find in Hanamā'ulu, a place immediately north of the study area, at the time:

...The governor [Kaikioewa] reached Hanamāulu in his canoe just as we entered on horse back... This is the governor's custom, when he travels. A man is sent before to give notice that provision may be made, at the different stopping places, for him and his train: which frequently amounts to two hundred [people]... I with a few natives had a comfortable house at Hanamāulu. The inhabitants brought us fish fresh from the ocean, fowls, taro, potatoes, and a pig, all except the fish roasted or baked in the ground... A youth who went with me for the purpose prepared my food. My bed, which was made with mats, was covered with ten tapas; these were the bed clothes which according to custom were presented to the guest for whom they were spread. (Damon 1931:360)

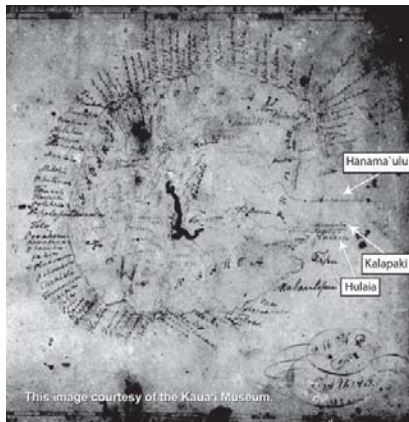


Figure 11. An 1820s map of Kaua'i made by Hiram Bingham showing some place names from the Project area (courtesy of Kaua'i Museum)

Also at this time in the 1830s, Governor Kaikioewa founded a village at Nāwiliwili that eventually developed into Lihue. According to Hammatt and Creed (1993), the name Lihue was not consistently used until the establishment of commercial sugar cane agriculture in the middle 19th century; and from the 1830s to the Māhele, the names Nāwiliwili and Lihue were used interchangeably to some extent to refer to a settlement along Nāwiliwili Bay. Some sources attribute the decision to call this area Lihue to Kaikioewa, who apparently named it after his nearby upcountry home. Waimea and Kōloa were preferred anchorages compared with Nāwiliwili, which opens directly east to the trade winds. Gales were known to blow ships onto the rocks. During the whaling era, Kōloa, which was home to the earliest major commercial operations in the Hawaiian Islands, was the preferred anchorage because of the ready supply of nearby food stuffs for resupplying the ships.

By 1830, the sandalwood trade had waned and the whaling industry was just beginning. At the same time, commercial agriculture was being established on Kaua'i. When the first crop of sugar cane was harvested at Kōloa, the king himself commanded that portions of his private land be planted in cane. In 1839, Governor Kaikioewa began farming the slopes of Nāwiliwili Bay where there was more rain than at Kōloa. (Dorrance and Morgan 1933) He also built a douse and church in Nāwiliwili Ahupua'a.

Donodugd (1931:9) describes Governor Kaikioewa's attempt to establish the first commercial sugar mill and plantation in Lihue in 1839:

During the early decades of Kōloa Plantation, the first sugar plantations were started up on the island. One was to result in the ascendancy of Lihue to the principal town and seat of government on Kaua'i, replacing Waialua. When Kaikioewa was appointed governor, he moved to Lihue, and in 1841 he moved to the Lihue District. He planned to grow sugar cane but before his plans could be realized, Kaikioewa was responsible for the name [Lihue], which means "cold chill," the name of his previous home at a higher and chillier altitude on O'ahu.

Donodugh (2001:94) describes observations by James Jarvis, who passed through Lihue in 1839:

... [He] found only a church built by Kaikioewa and a few grass houses. He commented that the harbor of Hanamā'ulu Bay as the harbor, "entirely of looking the fact that it opened directly to the windward."

As mentioned by Donodugh (1931:9) and aikioewa (1931:9) soon after the start of the sugar plantation, the only one year and a half in 1839, (Dorrance and Morgan 1933)

Around this time, perhaps as late as 1841, the first missionaries settled in the Lihue area led by Dr. and Mrs. Thomas Lafon, and assisted by Rev. and Mrs. Peter Gulick from Kōloa. Schools were opened and some missionaries attempted to grow cotton as the first intensive cash crop but were unsuccessful. (Damon 1931:360)

An account of the United States Exploring Expedition, which passed through Lihue in 1823, talks about the area but also mentions the force of the trade winds from the coastal areas:

At noon they reached the settlement lately undertaken by the Rev. Mr. Lafon for the purpose of inducing the natives to remove from the seacoast to the interior. The poor natives cultivated the rice plains about the harbor. The chief of the mission district lying between the two islands was a native. This district [Lihue] was a short time ago formed out of the other two.

The principal village is Nāwiliwili, ten miles east of Kōloa. This district contains about forty square miles being twenty miles long by four broad. The soil is rich; it produces sugar cane, taro, sweet potatoes, beans, etc. The only market is that of Kōloa. The cane suffers some damage from the drought in the dry season.

The temperature of Lihue is much the same range as that of Kōloa and the climate is pleasant; the trade winds are sufficient to keep the air cool.

rain falls to keep the vegetation green throughout the year. No cattle are to be seen, although the pasturage is good. (Wilkes 1845:67-68)

With the death of Kalkiowa, governorship of Kaua'i was transferred for a brief period to his widow Keaweamāhi. The brief tenure of Chiefess Kekauonohi and her husband Kealiiahonui (son of King Kaumuali'i) followed after which the governorship passed to Paulo Kanoa in 1848. Kanoa had two houses overlooking Nāwiliwili Bay; one on the bluff south of Nāwiliwili Stream (the present site of Kaua'i High School) and another at Papalinahoa, north of the bay (Damon 1931).

William DeWitt Alexander, son of Waioli missionary William P. Alexander, traveling from Kōloa to the north shore of Kaua'i in 1849 recorded some descriptive notes of Hanamā'ulu, north of the Project area:

A few miles further on we crossed the picturesque valley of Hanamā'ulu. This valley is prettily bordered by groves of Kukui, koa, & hala trees, and is well cultivated with taro. A fine stream flows through the midst of it, which makes a remarkable bend at this place like a horse shoe. We then traveled along the seashore at the foot of a range of hills through groves of hau, & among hills of sand. It was now after dark, but the moon shone brightly, and there was no difficulty in finding our way. About eight o'clock we arrived at the banks of the Wailua river. (Kauai Historical Society 1991:121)

One of the last vestiges of the pre-cash crop landscape is depicted in the diary entry for the Rice family's arrival on Kaua'i in 1854. During the second half of the nineteenth century, western settlers and entrepreneurs set their sights on southeast Kaua'i. Damon describes the Lihū'e landscape at the time of the family's arrival at Nāwiliwili Bay:

From the deck of their river craft in 1854 Mrs. Rice and the children could plainly see above the rocky shore and ruins of Kuhiau, the old heiau, or temple, and nearby on the bluff the flaming blossoms of a great wili-wili tree among koa trees which ten grew almost down to the water's edge. (Damon 1931:17-18)

4.3 The Māhele (1848)

Prior to 1848, all land belonged to the akua (gods), held in trust for them by the paramount chief and managed by subordinate chiefs. In the mid-1800s, Kamehameha III decreed a division of lands called the Māhele, which divided land for private land ownership in Hawaiian society (Chinen 1958). In 1848, lands were divided into three portions: crown lands, government lands, and lands set aside for the chiefs. Individual plots, called kuleana (Native Hawaiian land rights) awards, were granted within these divided lands to native inhabitants who lived on and farmed these plots and came forward to claim them. The chiefs and konohiki were required to pay a commutation fee for their lands, usually about one-third the value of any unimproved lands. Awardes usually "returned" a portion of the lands awarded to pay the commutation fee for the lands they "retained." The returned lands usually became government lands (Chinen 1958:13).

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'iki Ahupua'a, Lihū'e District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

30

The Kuleana Act was legislated in 1950 allowing maka'āinana (folk; commoners) to own land parcels which they were currently and actively cultivating and/or residing. In theory, this 'set aside' hundreds of thousands of acres as potential kuleana parcels which led to about 10,000 claimants obtaining approximately 30,000 acres. The konohiki, 252 chiefs, divided up about a million acres. Many Hawaiians were disenfranchised by these acts (Cordy et al. 1991).

4.3.1 Nāwiliwili Ahupua'a

Victoria Kamāmalu was awarded over two thousand acres of Nāwiliwili Ahupua'a (LCA 7713), along with much of Niimalu, Ha'iki and Kipū, as well as Kalapaki and Hanamā'ulu. In addition to Kamāmalu's large award at Nāwiliwili, there were many smaller kuleana awards. Within the ahupua'a of Nāwiliwili, there were 33 LCAs of which 20 were awarded (Waihona 'Aina 2000). A study by Hammatt and Creed (1993) describes LCAs in Nāwiliwili Valley:

Within the valley floor and adjacent to the alluvial plain [in Nāwiliwili] ... are 14 land Commission Awards for which there are testimonies available in the Land Commission records ... The awards vary in size between one to two acres and are generally around one acre. The majority of land recorded is for lo'i (wetland agriculture) but kula (dryland plots) are present as are a few house lots.

In all there are 54 lo'i recorded. Each award is generally two to three lo'i plots. The largest award comprised eight lo'i; a single award consisted of one lo'i. All awards contained lo'i and nine of the fifteen total awards had kula lots. Without exception, the nine awards containing kula mention only one kula per award. This is of interest because it shows that the alluvial plain was not entirely dedicated to wetland planting and that a small kula lot was essential for subsistence agriculture.

Some awards at Nāwiliwili mention house lots along the shoreline. Figure 12 depict Nāwiliwili Valley with its many lo'i near the ocean.

According to Kikuchi (1973), Nāwiliwili was home to at least five other fishponds in addition to Alekoko (Menehune) Loko. The names of two of these were unknown, but the others are Kalalalehua, Lokoponu and Papalinahoa. LCA documents identify the konohiki for Nāwiliwili at the time of the Māhele as Daniela Oleloa.

4.3.2 Niimalu Ahupua'a

As described earlier, Victoria Kamāmalu was awarded much land in Niimalu Ahupua'a. According to Ching et al. (1973), there are 21 LCAs for Niimalu which contained 80 lo'i. Many lo'i and kula lands are described as being in the same 'āpana, a pattern that is common to Puna District of Kaua'i, but not common elsewhere in Hawai'i. Perhaps maka'āinana were creating kula lands by piling up soil adjacent to wet lands. Throughout most of the Hawaiian Islands, kula lands refer specifically to dry sloping lands between the mountains and the sea. However, maka'āinana were referring to lands in valley bottoms as kula in the Puna District of Kaua'i. Some claimants describe their lands as being trampled by cattle.

Niimalu had seven other ponds in the vicinity of the well-known Alekoko (Menehune) Loko. Survey notes (Ching et al. 1973:105) for Niimalu Ahupua'a state that "[t]he fishing privilege

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'iki Ahupua'a, Lihū'e District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

31

[sic] of Huleia River belongs to the Ahupua'a of Niimalu from its mouth to the Road crossing it to Kipū Kai."



Figure 12. Taro terraces in Nāwiliwili Valley (Kauai Historical Society, n.d.)

4.3.3 Ha'iki Ahupua'a

Waihona 'Aina (2000), lists 41 LCAs for Ha'iki of which 37 were awarded. According to Ching et al. (1973), Ha'iki has many separate 'ili and lists 237 separate lo'i within the ahupua'a. Claimants describe loko or kiowai. Pu'ali (Figure 13) is the current USGS map name for the stream between Nāwiliwili and Huleia Streams; this drainage is also named Waikonui on a Land Commission-era survey map.

4.4 Mid Nineteenth to Twentieth Century

4.4.1 Population

A map by Coulter (1971) indicates that the population of Kaua'i circa 1853 concentrated along the coastal areas. Within the Puna District, the map indicates an estimated population of approximately 1,700 people in the vicinity of Nāwiliwili Bay (Figure 14).

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'iki Ahupua'a, Lihū'e District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

32



Figure 13. Taro cultivated in the vicinity of Pu'ali Stream in 1905 (Kaua'i Historical Society, 1905)

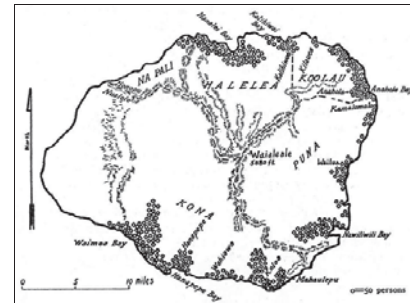


Figure 14. Map showing population estimate for Kaua'i in 1853 (adapted from Coulter 1931:16)

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'iki Ahupua'a, Lihū'e District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

33

4.4.2 Changing District Names

The traditional moku or districts of Kaua'i were replaced in the middle to latter part of the 19th century by modern political district names (Figure 15). Given its economic importance to the island, Lihue became the modern district name and includes the ahupua'a of the proposed Project, previously under the Puna District. Rice describes:

The name, Lihue, applied in a larger sense, included the districts of what are now Kawaihau and Lihue, reaching from Anahola to the Gap, being made so by law in about the year 1861, according to early court records, but some years later divided into the present two districts. The large district was also known as the Puna district, and is found on early maps as such. It was August thirteenth, 1880, that the district was divided into two, by act of Legislature with King Kalākaua's signature.... Lihue, in a local sense, and from which the name of the district was derived meant only that little portion of land upon which the present village, as consisting of bank, post office and store, now stands. (Rice 1914:46)

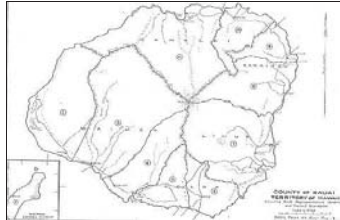


Figure 15. 1936 map of the political districts of the County of Kaua'i, Territory of Hawai'i

4.4.3 Commercial Sugar Cane Agriculture

As Western dominance grew in Hawai'i, sugar came to dominate economic, political, and social life in the islands. In 1835, commercial cultivation of sugar began at Kōloa on Kaua'i which created needs for a larger supply of indentured, contract laborers (Riznik, 1999). Plantations were established throughout Hawai'i, but by the beginning of the mid-nineteenth century, reduced Native Hawaiian populations could no longer meet plantations' needs for a constant supply of cheap labor. Thus, foreign labor was imported by plantations particularly from Japan, China, and the Philippines (Riznik, 1999).

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niiheliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

34

4.4.3.1 Lihue Plantation

Following the Māhele and the availability of large tracts of land for sale, Lihue Plantation "was established on the site Kaikio'ewa had chosen, and the cluster of homes and stores around it was the start of the town of Lihue." (Donohugh 2001:94). Situated adjacent to the Project area, Lihue Plantation began as a partnership between Henry Augustus Pierce, Judge William Little Lee and Charles R. Bishop in 1849 (Damon 1931). The first 3,000 acres were purchased in Niiheliwili and an additional 300 acres were purchased in Ahukini in 1866. The Lihue Plantation became the most modern plantation at that time in all Hawai'i. It featured a steam-powered mill built in 1853, the first use of steam power on a Hawaiian sugar plantation. The ten-mile-long Hanamā'u Ditch was also built in 1856 by plantation manager, William H. Rice, the first large-scale irrigation project for any of the sugar plantations (Moffatt and Fitzpatrick 1995:103).

Hawaiians made up the labor force of Lihue Plantation, and many built their homes on the land surrounding the mill (Figure 16). Planting began in 1850 and the first crop was ground in 1853 (Joesting 1984:173). From 1854 to 1862, under the management of William Harrison Rice, the plantation invested heavily in irrigation ditch infrastructure known initially as "Rice's Folly" (Krauss and Alexander 1984:67). George Norton Wilcox, son of the ABCFM teacher Abner Wilcox, was raised on Kaua'i and observed Rice's successful utilization of irrigation. Wilcox attended Yale University and studied engineering and surveying, earning a certificate in 1862. Upon returning to Kaua'i in 1863 he soon began work as a surveyor for Judge Herman Widemann, owner of the Grove Farm Plantation at the time.



Figure 16. Lihue Plantation Sugar Mill, 1941 (U.S. National Archives and Records Administration)

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niiheliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

35

Commercial sugar cane agriculture continued in Lihue until 2000, when Lihue Plantation and the Kekaha Sugar Co. finally shut down and terminated approximately 400 workers. The nearby Kipū Plantation, founded in 1907, operated until 1942 (Dorrance and Morgan 2000).

Lihue Plantation remained a vibrant and successful commercial operation throughout most of the 20th century, in part, because of a continued interest in technological innovation. For example, in 1912, Lihue Plantation installed two 240-kilowatt generators above the cane fields on the slopes of Kilohana Crater, becoming one of the first hydroelectric power producers (along with Kekaha, Kaua'i) in the Hawaiian Islands (Dorrance and Morgan 2000).

First-hand recollections about life in the early 20th century plantation days of Lihue are documented and archived at the Grove Farm Museum. The following example, which appeared in the *Honolulu Advertiser* on April 24, 2000, describes the struggles of 78-year-old Tadeo Suemori to keep his house at the so-called Rice Camp (TenBruggencate 2000:B-1). Mr. Suemori was born and lived his whole life at this house, which was previously one of a total of 18 plantation cottages on a 14-acre parcel owned by Wm. Hyde Rice, Ltd. When the landowner began moving people out in 1989 to sell the property to the museum, Mr. Suemori refused to vacate: "They never evicted me. I said, 'I ain't moving out'" (TenBruggencate 2000:B-1). He was eventually allowed to rent the place for the remainder of his life, but had wished to restore and rehabilitate the old Rice Camp. Mr. Suemori shared his concerns:

He is concerned about the environment, and particularly about pollution in Nawiliwili Stream, which runs below his house. It was clean when he and his childhood friends skinny dipped there while the U.S. stock market was crashing in 1929. It was the place where they caught prawns and 'o'opu and frogs...Today the streams run brown and smells bad. Only a few frogs and mosquito fish live there. That angers Suemori. He wants someone to clean it up. (TenBruggencate 2000:B-2)

4.4.3.2 Grove Farm Plantation (1864-1974)

Grove Farm Plantation, which was named after an old stand of kukui trees, was established by Warren Goodale after acquiring the land in 1850. He sold the property the same year to James F. B. Marshall for \$3,000 who sold it to Judge Widemann for \$8,000 in 1856. At the end of 1863 Judge Widemann asked George Wilcox to undertake the supervision of the cutting of a water lead or irrigation ditch for the Grove Farm Plantation using Hawaiian labor. The following year, Wilcox leased Grove Farm Plantation from Widemann and rapidly expanded development of the irrigation infrastructure.

Western commerce between Kōloa and Lihue took off during the second half of the 19th century. A visitor to Kaua'i in 1865, William T. Brigham, described the route between Lihue and Kōloa:

From Lihue the road led over the plain with the mountains on the left. A ditch crossed and recrossed the road as it wound along the hills from the mountains to the canefields below. Owls (puo) were very abundant. The Pass over the mountains was very good and not at all steep, and all the way which was some

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niiheliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

36

twelve miles, the road was very good, in fact a carriage road. Two hours riding brought me to Dr. Smith's [in Kōloa] at eight. (Lydgate 1991:143)

The "ditch" Brigham described probably included "1st Ditch" excavated in 1864 and "2nd Ditch" which was completed in 1865. Prior to the completion of 1st Ditch, Krauss and Alexander write that Wilcox:

...drove an ox cart to the beach and around the bay to a Hawaiian settlement called Niimahu where the natives grew sugar cane, as a supplementary food crop, on the earthen dams that separated their taro patches. George carefully chose stands of healthy cane, making sure that they were original plantings and not rations. (Krauss and Alexander 1984:133)

In 1870, Wilcox bought Grove Farm from Widemann for \$12,000, three-quarters of which was borrowed. Four years later he had 200 acres under cultivation. The cane was milled at the Lihue Mill and exported from Niiheliwili. In 1874, Wilcox renewed a 25-year lease with Princess Ruth Ke'elikōlani, for 25 years, for a 10,000-acre tract of Ha'iki Ahupua'a (Krauss and Alexander 1984:179). On April 1, 1881 George Wilcox bought 10,500 acres of Ha'iki Ahupua'a from Princess Ruth increasing the acreage of Grove Farm nearly ten-fold (Krauss and Alexander 1984:206). The sale was part of a package deal whereby Mr. Rice also received Kipū and Kipū Kai for a total price of \$27,500—money that Princess Ruth used to build her palace that rivaled Kalākau's palace, on Emma Street in Honolulu.

An 1878 Government Survey map (Figure 17) also shows little development within the Project area vicinity and sugar plantations which have not expanded to their later extent. Grove Farm fields are to the southeast, and Lihue Plantation is to the east. Kaunimāli'i Highway appears to be an un-improved or dirt road.

4.4.3.3 Puhi Camp

Grove Farm (Figure 18) operated under Mr. George Wilcox until 1933 when he died. During that time, the plantation flourished and many innovations like new cultivation and planting methods developed. Grove Farm was also at the forefront of housing improvements during a time when plantation housing throughout the Hawaiian Islands was inadequate (Riznik, 1999). Unsanitary and crowded housing for workers compounded the spread of infectious diseases which spurred interest in housing reform on individual plantations. Between 1917 to 1920, Grove Farm built 120 houses in a single new camp for workers which became known as Puhi Camp. The new housing at Puhi attracted the attention of the Hawaiian Sugar Planters' Association (HSPA) and the dwellings became the standard for the plantation industry in the 1920s (Figures 19 and 20).

In 1917, Robert S. Thurston, the Experiment Station's associate agriculturalist described the buildings at Grove Farm:

The buildings being erected are of three types: (1) Two or three rooms in a row, all under an inverted V roof, without a kitchen. (2) Two rooms under the same kind of roof, but with a kitchen adjoining in the rear. (3) A three room bungalow [sic] with adjoining kitchen in the rear. The first type is for bachelors; the second for a couple and one or two children; and the third for larger families. The kitchen

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niiheliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

37

floors are of concrete. The stove is built of concrete and cast iron and has a concrete smoke stack, thereby reducing to a minimum the chance of fire. Just outside the kitchen is a concrete floor about 4' x 5' on which a wash tub may be set. This floor drains into a concrete gutter which runs past and drains all the houses.

The buildings are of wood and are set out in 3 double rows, each row front on a street. Cross walks will be put in, making a double row of 8 buildings, or 16 buildings per block. Each building is set on a lot 50' x 75'. Running water is piped to each kitchen and an open concrete ditch is furnished for drainage from the kitchens. If the laborers wish to cultivate their gardens the plantation will furnish a team and plow with which to plow up the land. (Riznik 1999:134)

In the 1920s, Grove Farm began a new building program at Pūhi, along the route of the present Kaumali'i Highway and just south of the Project area. The continuing lack of development in the area prior to this is evident on the 1910 U.S. Geological Survey map (Figure 21).

About 1920 George Wilcox began construction of a completely modern camp at Pūhi in the heart of the expanding plantation. Instead of building houses haphazardly as new families moved in, a complete village was laid out with streets, a playground, room for gardens, and lawns. The houses had proper kitchens equipped with running water and enough bedrooms for each family depending upon the number of children. (Krauss and Alexander 1984:310)

Pūhi Camp also extended into the current Project area, adjacent to Kaumali'i Highway. The plantation camp consisted of some 600 homes occupied by up to 1,200 workers and their families. Pūhi Camp also contained a movie hall, three stores, a Chinese laundry, a slaughterhouse, and an area for social events (Chang 2007).

At the beginning of the 20th century, Grove Farm developed agreements to secure sufficient water and also to sell any surplus. A right of way with Kōloa Plantation was secured in 1906 that provided water from Kuia Stream. Grove Farm's "Upper Ditch" was constructed between 1914 and 1917 and by the 1920s "Grove Farm had 16 miles of ditches delivering 26 mgd" (Wilcox 1998:74).

During the 1930s, federal funds became available to assist the Territory of Hawai'i's highway construction program. Between 1933 and 1937, the reconstruction of the Belt Road, or what is now the present Kaumali'i Highway, was completed incrementally. Ho'omana Overpass (Ho'omana Road Bridge) was constructed in 1928, Waihoehonu Bridge was built in 1934, the Lihue'e Mill Bridge was constructed in 1936, and the Weoweopila Bridge was built in 1937.

At the same time that the Belt Road construction program was underway, during the mid-1930s, Grove Farm was further expanding into Pūhi with its new headquarters and the construction of a new office building, shop and stables. Figure 22 shows the 1941 location of Grove Farm in relation to Lihue Plantation. At that time, Grove Farm was still dependent on Lihue Plantation's mill for processing its sugar.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue'e District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

38

In 1948, Grove Farm purchased Kōloa Plantation. This doubled the size of Grove Farm, gave Grove Farm its own sugar mill for the first time, and eliminated duplication in manpower, equipment and administrative costs. In 1948-1949, a cane haul truck tunnel (the Wilcox Tunnel) was excavated under the Hoary Head Range connecting the sugar cane fields of Ha'iki to the Kōloa Mill (Krauss and Alexander 1984:366-368). Figure 18 shows Grove Farm, identifying the plantation's original areas and subsequent acquisitions. The graphic also shows "Mauka Ditch" extending north to south through the center of the Project area.

In 1954, an airstrip was developed at Ha'iki for aerial spraying of fertilizer and herbicides. In the early 1960s, the nearly one mile long Kuia-Waia Tunnel was completed bringing Ha'iki water to the drier Kōloa side. Development within the Project area and its vicinity can be seen on the 1963 U.S. Geological Survey map (Figure 23). The symbols for buildings adjacent to Kaumali'i Highway on Figure 23 are the homes within Pūhi Camp.

Wilcox (1998:76) reports that despite almost 100 years of irrigation ditch construction, "Grove Farm's ditch system was a modest one not known for any outstanding technical or physical achievements. This may reflect the limited watershed available to Grove Farm, the small size of the plantation's acreage, or G.N.'s [Wilcox] personal sense of scale."

4.5 Modern Land Use

In the mid-1960s, Sam Wilcox of Grove Farm donated 200 acres of former sugar land to the state for KCC. A 1965 aerial photograph (from Foote et al. 1972) (Figure 24) shows the extent of sugar cane cultivation within the Project area and vicinity prior to the construction of KCC (Kamins and Potter 1998:275). Grove Farm ended its sugar business in 1974, setting aside lands for development and also for the continuation of sugar cultivation by leasing its Lihue'e lands to Lihue Plantation, and its Kōloa lands to McBryde Sugar (Wilcox 1998:76). A 1977-1978 aerial (Figure 25) shows the new college campus and development within its vicinity although the northern- and western-most portions of the approximately 200-acre campus still appear to be undeveloped.

Most of the Pūhi Camp housing was removed in the 1970s prior to the construction of KCC. In the 1980s, the last homes in Pūhi Camp were dismantled (Chang 2007). Currently, newer buildings for the Pūhala Leo o Kaua'i Pre-School and Kawaikini New Century Public Charter School, and a few agricultural plots occupy some of the former Pūhi Camp lands.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue'e District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

39

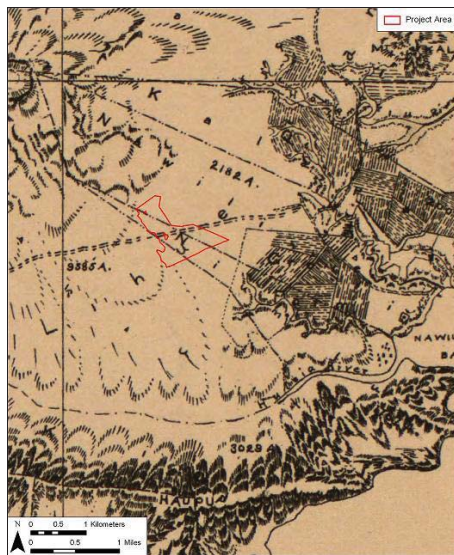


Figure 17. Portion of 1878 Government Survey map by W.D. Alexander, showing location of the Project area and Grove Farm (shaded)

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue'e District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

40

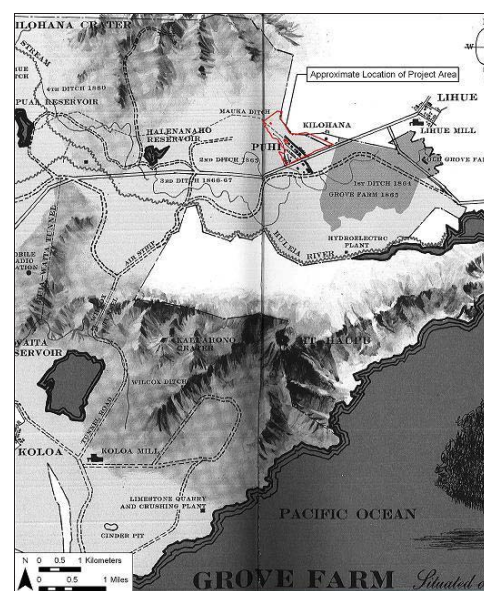


Figure 18. Grove Farm showing its approximate location to the Project area, Lihue'e, Kōloa, and larger southwestern Kaua'i (adapted from Krauss and Alexander 1984).

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue'e District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

41

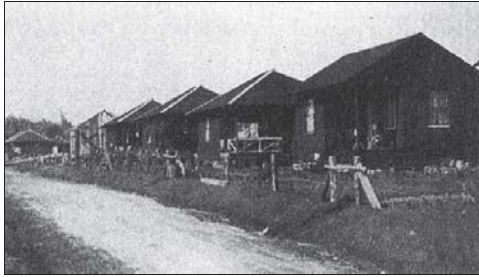


Figure 19. Plantation housing at Puhi Camp (Adapted from Riznik 1999)

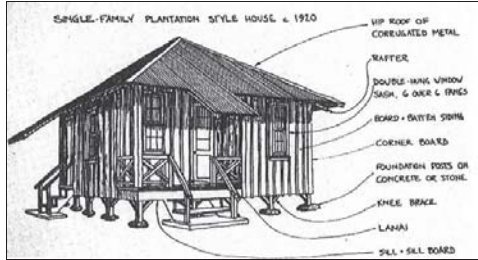


Figure 20. Single family plantation style house at Puhi Camp, 1920 (adapted from Riznik 1999)

Cultural Impact Assessment for the Kana'i Community College Redesign of Urban District Project,
Niwiiliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kana'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

42

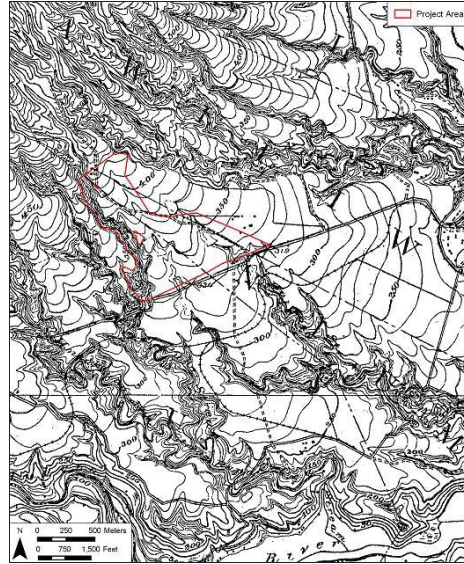


Figure 21. Portion of 1910 U.S. Geological Survey Map, Lihue's quadrangle, showing the Project area

Cultural Impact Assessment for the Kana'i Community College Redesign of Urban District Project,
Niwiiliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kana'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

43

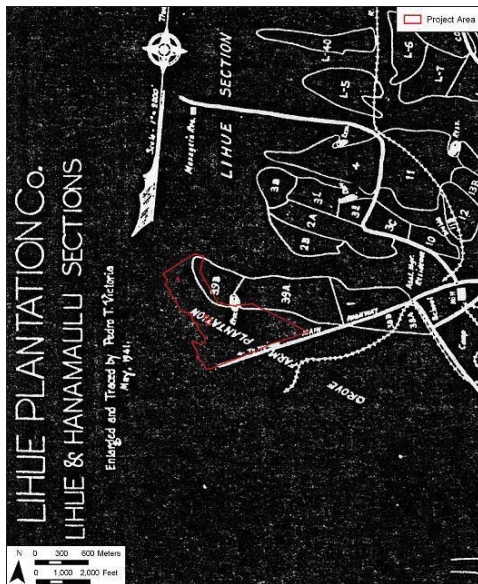


Figure 22. Portion of 1941 Lihue Plantation map showing the location of the Project area adjacent to the plantation and within Grove Farm

Cultural Impact Assessment for the Kana'i Community College Redesign of Urban District Project,
Niwiiliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kana'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

44

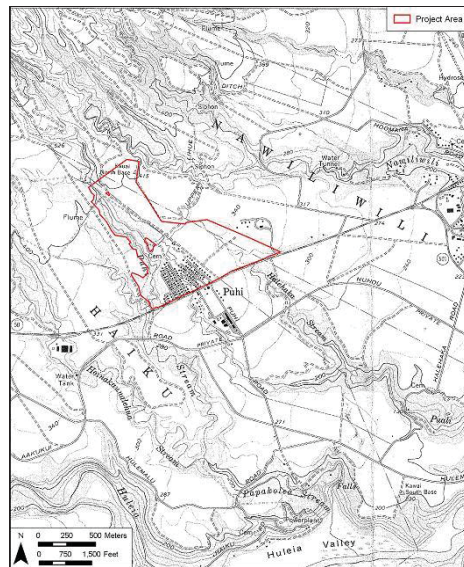


Figure 23. Portion of 1963 U.S. Geological Survey 7.5-Minute Series Topographic Map, Lihue's quadrangle, showing the Project area

Cultural Impact Assessment for the Kana'i Community College Redesign of Urban District Project,
Niwiiliwili, Niimaha, and Ha'iki Ahupua'a, Lihue's District, Kana'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

45

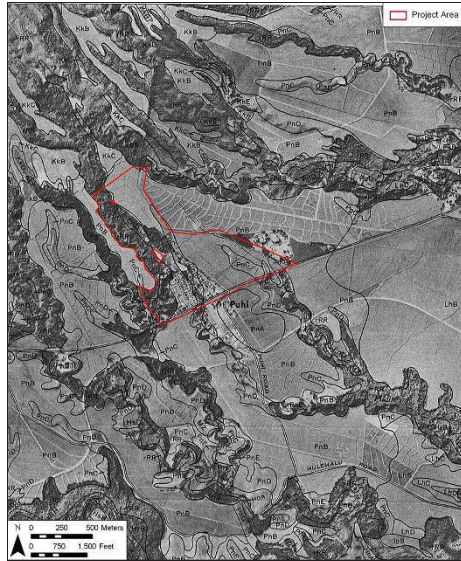


Figure 24. A 1965 aerial photograph showing the extent of sugar cane within the Project area and its vicinity (adapted from Foote et al. 1972)

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

46



Figure 25. 1977-1978 U.S. Geological Survey aerial photograph of Lihue and vicinity showing the Project area

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

47

Section 5 Archaeology

5.1 Previous Archaeological Research

5.1.1 Previous archaeological studies in the study area

The first comprehensive archaeological survey of Kaula's was conducted by Bennett (1931) of the Bishop Museum. Bennett's survey report identifies no archaeological sites within or in the immediate vicinity of the Project area. The report identifies Bennett Site 98 as the "Niamalu" or "Menehune" Fishpond located approximately 3 kilometers (km) southwest of the Project area. According to Bennett:

The Niamalu [sic] fish pond consists principally of a stone-faced, dirt wall that runs for over 900 yards and cuts off a large bend in the river for use as a fish pond. It is today [in the early 1930s] used both for fish and ducks. Cement walls and iron gates have obscured any old method of controlling the water or the fish. (Bennett 1931:124)

The focus of more recent archaeological studies in the vicinity of the Project area has been along the mouth of the Hule'ia River, Niwiliwili Bay, and the associated river banks leading down to Niwiliwili Bay. The agricultural fields within and surrounding the Project area have been slowly converted to other uses, particularly in the 1990s, and some archaeological work has been undertaken within these areas. Archaeological studies near the Project area are summarized in Table 2 and Figure 26.

Table 2. Previous archaeological studies within and near the Project area

Study	Location	Type	Findings
Bennett 1931	Island-wide Survey	Recordation of Major Pre-contact Sites	Identified one site in the area (Site 98)
Palama 1973	Kaula's Community College area	Reconnaissance Survey	Noted portions of 'auwai, possible lo'i, a cemetery and a historic military complex
Neller and Palama 1973	Lower portion of the Hule'ia River	Reconnaissance Survey	31 sites identified including one historic human burial
Ching et al. 1973	Kanoo Estate, Niumala	Reconnaissance Survey	Nine features associated with the 'Alekoko (Menehune) Fishpond were identified and documented
Walker and Rosendahl 1988	Grove Farm Lihue/Puhi Project	Surface and Sub-surface Survey	Identified two historic properties, Japanese cemetery SIHP -503; and historic residence SIHP -9390

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

48

Study	Location	Type	Findings
Kido 1986	Alekoko Fishpond and Hule'ia Estuary	Preliminary Survey	Mangrove encroachment on pond wall, breaks in wall and rubbish used to fortify wall. Recommends a more comprehensive survey
Rosendahl 1989	Eight Additional Areas of the Grove Farm Lihue/Puhi Project	Archaeological Inventory Survey	No cultural material observed
McMahon 1990	Lihue	Archaeological Fieldcheck	Three previously identified historic residential sites (50-30-9390, -9401, -9402)
Walker et al. 1991	Lihue District	Archaeological Inventory Survey	Identified ten historic properties; three pre-Contact, seven historic including a concrete bridge, concrete wharf, cultural deposits, terraces, roads, walls, retaining walls, a possible agricultural area, and a historic cemetery
Henry et al. 1993	590-acre Grove Farm Lihue/Puhi Project Site	Inventory Survey w/ Subsurface Testing	Two historic properties identified including a cemetery and residence (revised report same as Walker and Rosendahl 1988)
O'Hare et al. 1993	100-acre Puakea Golf and Country Club, Lihue	Inventory Survey w/ Subsurface Testing	No cultural material observed
Hammatt and Chiogioji 1998	11.5 km portion of Kaunauli'i Highway corridor	Archaeological Assessment	Four historic properties identified: Grove Farm office building in Puhi, the Lihue Mill Bridge, the Ho'omana Overpass Bridge, and the Lihue Public Cemetery
Hammatt and Shideler 2004	One-Stop Center at KCC	Archaeological and Cultural Impact Evaluation Study	No cultural material observed and no cultural impacts anticipated

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

49

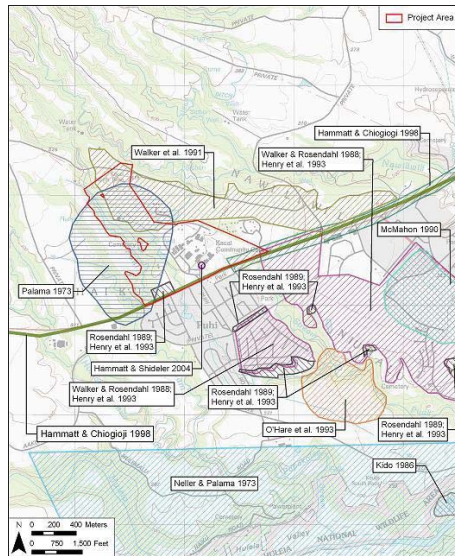


Figure 26. Portion of 1996 U.S. Geological Survey 7.5-Minute Series Topographic Map, Lihue quadrangle, showing previous archaeological studies in vicinity of the Project area

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

50

Neller and Palama (1973) carried out an archaeological reconnaissance of the lower portion of the Hule'ia River and its vicinity recording a number of historic properties. The archaeological richness of that area from the "Menehune Fishpond" downstream and near the crest of the trail to Kipiti Kai is clear. They did, however, also document four historic properties upstream of the Menehune Fishpond, the nearest of which (SIHP -3010) consists of contiguous rock wall enclosures and several other features. This historic property is described as:

...a compound, probably belonging to a chief or other important person. Nearby there are stone-faced river terraces, irrigation ditch (auwai), and a stone bridge crossing the auwai. The area is worth restoring to its prehistoric condition. It is an impressive site. (Neller and Palama 1973:3)

SIHP -3009, also identified by Neller and Palama, is approximately 1.6 km from the current Project area, and consists of an "agricultural area along both sides of the river, including rock-walled terraces and irrigation ditches (auwai). Also includes cement covered grave of G. Kalili, died Dec. 17, 1898" (Neller and Palama 1973:11).

Ching et al. (1973) conducted detailed research on Alekoko (Menehune) Fishpond and its vicinity. Nine archaeological features and feature complexes were identified and documented, including three fishpond features (loko kuapā and two loko wai), two 'auwai, and four lo'i complexes.

Walker and Rosendahl (1988) conducted an archaeological surface and subsurface inventory survey of 450-acre Grove Farm from Pūhi Town, south of Kaunua'i Highway nearly to Niwiliwili Bay. A total of two historic properties were identified, a historic Japanese cemetery SIHP -503, and a historic residence SIHP -9390. The following year, Paul Rosendahl (1989) produced an addendum report covering eight additional separate small adjacent areas. No historic properties or cultural material were identified. Henry et al. (1993) covers the same project area and is the final archaeological inventory survey for this area.

O'Hare et al. (1993) carried out an archaeological inventory survey on a 100-acre Puakea Golf and Country Club project area located approximately one km south east of Pūhi Town. No historic properties or cultural materials were identified.

5.1.2 Previous archaeological studies within or adjacent to the Project area

5.1.2.1 KCC Archaeological Reconnaissance (Palama 1973)

In 1973, the Archaeological Research Center Hawaii conducted an archaeological reconnaissance of approximately 57 acres of the gully portion of KCC (Palama 1973), an area north and west of the currently developed portion of KCC. During the archaeological reconnaissance an "old 'auwai", an old military complex, a Japanese Cemetery, old plantation camp remains, an extant plantation camp, and possible lo'i were found (Figure 27). Palama (1973:2) asked plantation camp residents whether they ever found evidence of taro cultivation or if they farmed within the gully in the western-most portion of the current Project area. Apparently only very limited farming had ever been conducted in the gully, and the plantation workers were not aware of any taro cultivation. Palama (1973:2) "recommended that no further work is warranted" for the historic features he identified and no state site numbers were assigned.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

51

5.1.2.2 Rosendahl (1989)/ Henry et al. (1993) Archaeological Inventory Survey

One of the eight additional separate small adjacent areas surveyed by Paul Rosendahl (1989) in the addendum report described above, is within the southwestern portion of the Project area and adjacent to Kaunua'i Highway. Designated as Area 1, it is described as consisting of "residential homesteads and yards" (Henry et al. 1993:18).

5.1.2.3 Lihue/Pūhi/Cana - aKūnastoryPlang(Halyersgig1991)g

Approximately 110 acres of land adjacent to the Project area are included in the 1,550-acre Lihue/Pūhi/Hanamaulu Master Plan (Walker et al. 1999:4) Designated as Section No. 1, this area is described as:

...bounded on the north and east by the Nawiliwili Stream gulch, on the south by - auai Community College and - auai Highway, and on the west by the Pūhi Stream gulch. The entire parcel has been modified and is presently in sugar cane fields. The study concluded that cultural impacts associated with the proposed project are unlikely.

The report states that:

areas in sugar cane were only sampled ... [and] were not generally surveyed ... because areas altered by sugar cane cultivation are unlikely to contain archaeological features, and because sugar cane cultivation within the present project area does not occur in low-lying or alluvial flat areas that may contain buried cultural deposits. (Walker et al. 1999:74)

While Section No. 1 is listed as an area subjected to "inventory level survey" in the report, this statement is further explained that "only very limited surface survey was done in sugar cane fields ... [and] no subsurface testing was performed in sugar cane fields" (Walker et al. 1999:74). No additional descriptions of the Project area and its vicinity are included in the report. Additionally, none of the ten historic properties (SIHP # 3009, SIHP # 3010, SIHP # 3011, SIHP # 3012, SIHP # 3013, SIHP # 3014, SIHP # 3015, SIHP # 3016, SIHP # 3017, SIHP # 3018) identified during the Walker et al. 1999 study, including a concrete bridge, concrete ditches, cultural deposits, terraces, roads, ditches, retaining ditches, a possible agricultural area, and a historic cemetery, was identified in or within close proximity to the Project area.

5.1.2.4 Kaunua'i/Higleyway/Archaeological/assessment - entgCa - atngndg/higlogig1998)g

CSH Khammat and Chioigi 1999 conducted an archaeological assessment of an approximately 1.5 km long portion of the Kaunua'i Highway corridor, a portion of which is adjacent to the southern boundary of - CC. During the reconnaissance survey, no historic properties were found in the vicinity of the site. No surface traditional Hawaiian archaeological sites were observed during the entire survey although four historic properties (ditches, a cemetery and an office building) were noted. No state site numbers were assigned.

5.1.2.5 2004/CC/OneStop/entgUSgndg/LigCa - atngndg/Shideler2004)g

In 2004, CSH conducted an archaeological and cultural impact evaluation study for the 6-acre Stop Center at - CC Khammat and Shideler 2004. The project included construction of a two-story building of approximately 550,000 net square feet (552,000 gross square feet).

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

52

located in the southern side of the existing - CC campus. A field inspection of the vicinity of the proposed project was conducted and observed to be a graded, established land with no observed indicators of any archaeological concern. As the area for the project is under sugar cane cultivation for many decades and its location observed to be graded (not an established land), the study concluded that cultural impacts associated with the proposed project are unlikely.

A summary of the proposed project and its findings was mailed to Dr. Pua Aia Kūnā of the Office of Hawaiian Affairs and to Mr. Dennis C. Lin of the Hawaiian Studies program of - CC on December 19, 2004. Follow-up telephone consultation was held with Mr. C. Lin on February 19, 2005 and with Dr. Aia on February 19, 2005. A brief telephone consultation on the subject was also held with Ms. LaFrance - apaka Arboleda of the Kaua'i Office of Hawaiian Affairs and the - auai/Ni'ihau Islands Burial Council on February 20, 2004. None of these parties expressed any concerns for adverse impacts to cultural practices by the proposed project. Subsequently, the SHPD concluded that: "No further archaeological work is needed for the project."

5.2 Archaeological Assessment for the proposed project

CSH archaeologists, Gerald - Ida, O.A. and Nancine "Missy" - amai, O.A., completed the field inspection for the proposed Project at - CC in late August and August 15, 2005, during which required eight person-days. On the day of the inspection, only one archaeologist carried out documentation. All fieldwork was conducted under CSH's annual archaeological permit No. 102 issued by SHPD per HARP Chapter 12.0, under the general supervision of the principal investigator, Hallett H. Hammett, PhD.

The field inspection consisted of a pedestrian inspection of the - CC campus. Field access restrictions impeded the inspection, including, ground instability due to the vegetation and previous development. A total of ten historic surface features, including two previously identified historic features (CSHP, CSH #4, were found during the field inspection. CSH #9, an "old 'auwai" that conforms to a portion of Grove Farm's "Mauka Ditch". See Figure 174d as previously found during an archaeological reconnaissance (Palama 1973:4) of the eastern portion of the Project area. Palama 1973:4 also recorded the location of a cemetery that was identified during the current field inspection as CSH #0. The Puhi Camp Cemetery, SIHP # 502 (202000) CSH #0, is outside of the Project area.

The nine features found within the Project area appear to be related to Grove Farm and date to the plantation era. The historic surface features consist of five irrigation ditches (CSH #1, CSH #2, CSH #3, CSH #4, CSH #5, CSH #6, CSH #7, CSH #8, CSH #9, one of the ditches (CSH #4) is abandoned; three reservoirs (CSH #1, CSH #2, CSH #3) are abandoned; and an abandoned wooden flume (CSH #4).

Palama's (1973) archaeological reconnaissance had identified old plantation camp remains associated with Pūhi Camp, Pūhi Camp, and an area containing possible lo'i. These features were not present during the current field inspection. An old military complex identified by Palama 1973:4 is outside of the current Project area, and no evidence of the complex was found during the field inspection.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

53

As discussed in Section 4.5, all Puhi Camp plantation housing was removed by the 1980s. Currently, newer buildings for the Pūnana Leo o Kaua'i Pre-School and Kawaikini New Century Public Charter School, and a few agricultural plots occupy some of the former Puhi Camp lands.

Descriptions and photograph documentation of each of the historic features identified during the field inspection are shown in Table 3 and Figure 28.

Table 3. Historic Features Identified Within and Adjacent to the Project Area

Feature	Feature Type	Function	Age	Notes
CSH 1	Irrigation ditch	Water control	Plantation era	Abandoned
CSH 2	Irrigation ditch	Water control	Plantation era	Currently in use for run-off
CSH 3	Reservoir	Water control	Plantation era	Abandoned
CSH 4	Irrigation ditch	Water control	Plantation era	Currently in use
CSH 5	Reservoir	Water control	Plantation era	Currently in use
CSH 6	Irrigation ditch	Water control	Plantation era	Currently in use
CSH 7	Reservoir	Water control	Plantation era	Currently in use
CSH 8	Flume	Water control	Plantation era	Abandoned
CSH 9	Irrigation ditch	Water control	Plantation era	Currently in use
CSH 10/ SIHP – B006	Cemetery	Burial	1920-1977	Designated as SIHP # 50-30-11-B006 (Kikuchi and Remoaldo 1992:134)



Figure 27. Locations of historic resources found within portions of the Project area during a 1973 archaeological reconnaissance (adapted from Palama 1973:4)



Figure 28. Locations of historic resources found within the Project area during 1973 archaeological reconnaissance (adapted from Palama 1973:4; base map Google Earth 2012)

Section 6 Community Consultation

Throughout the course of this assessment, an effort was made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about traditional cultural practices specifically related to the study area. This effort was made by letter, e-mail, telephone and in person contact. The initial outreach effort began in September, 2011, and community consultation was completed in February, 2012.

In the majority of cases, a letter (Appendix D), map, and an aerial photograph of the Project area were mailed. In most cases, one to multiple attempts were made to contact individuals, organizations, and agencies apposite to the CIA for the Project. The results of the community consultation process are presented in Table 4. Written statements from organizations, agencies, and community members are presented in Sections 6.1–6.3 below and summaries of interviews with individuals are presented in Section 7.

Table 4. Results of Community Consultation

Name	Affiliation, Background	Comments
Agena, Mr. Robert "Bobby"	Former Puhi Camp resident	Mr. Agena was referred to CSH by Mr. Madayag. CSH called Mr. Agena on 10/21/2011 and left a message. Mr. Agena returned the call on the same day and asked for more information. CSH mailed the initial contact letter on 11/24/2011. CSH called to follow-up on 11/2/2011 and left a message. CSH called Mr. Agena on 11/22/2011 again and left a message inviting him to join a planned site visit to the Old Puhi Camp on 12/05/2011
Aiu, Ms. Pua	Staff, SHPD	CSH mailed the initial contact letter on 09/29/2011 and a second letter on 11/03/2011. Ms. Cayen responded on behalf of the SHPD with a letter on 1/03/2012 recommending several community members from Kaua'i. Refer to Appendix E
Ako, Mr. Val	Kupuna	CSH mailed the initial contact letter on 10/08/2011. CSH called to follow up on 11/02/2011 and talked with Mr. Ako but he stated that he is not familiar with the Project area
Ayau, Mr. Halealoha	Hui Mālama I Nā Kupuna O Hawai'i Nei	CSH e-mailed the initial contact letter to Mr. Ayau on 10/04/2011. Mr. Ayau e-mailed CSH on 10/08/2011 stating that he had no

Name	Affiliation, Background	Comments
		comments on the Project but would forwarded the information to his wife whose 'shana is from Niwiliwili. CSH responded to Mr. Ayau on 10/09/2011 and asked for his wife's contact information
Cataluna, Mr. Donald	OHA Trustee, Kaua'i /Nī'ihau Ho'okipa Network	CSH mailed the initial contact letter on 09/29/2011. A follow-up letter was sent on 11/03/2011
Chun, Mr. Dennis	Chair, Department of Hawaiian Studies, Kaua'i Community College	CSH sent the initial contact letter on 11/15/2011. CSH called Mr. Chun on 11/18/2011 and left message. Mr. Chun called CSH on 11/21/2011 and left a message. CSH responded on the same day and left message. CSH also emailed Mr. Chun on 11/21/2011 to request an interview. Mr. Chun was interviewed on 12/05/2012. Refer to his interview transcript in Section 7.4
Dacey, Mr. Manny	Former Puhi Camp resident	CSH sent the initial contact letter on 10/15/2011. The letter was returned on 10/25/2011. CSH called on 11/08/2011 but could not leave message
Ellamar, Mr. Frederic	Former Puhi Camp resident	CSH called Mr. Ellamar on 10/14/2011 and on 10/21/2011. CSH mailed the initial contact letter on 10/24/2011. CSH called on 10/26/2011 and talked with Mr. Ellamar. He called CSH on 10/28/2011 with a statement (Refer to Section 5.3)
Grove Farm Company	Former landowner of the Project area	CSH sent the initial contact letter on 09/29/2011. CSH sent a second letter on 11/03/2011
Hussey-Albaw, Mrs. Liberta	President, Queen Deborah Kapule Hawaiian Civic Club	CSH sent the initial contact letter on 09/29/2011. Mrs. Hussey-Albaw emailed CSH on 10/04/2011 and referred Mary Requilman of the Kaua'i Historical Society. She also indicated that the proposed Project will be discussed at the next Queen Deborah Kapule Hawaiian Civic Club meeting. CSH responded to Ms. Hussey-Albaw on

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

58

Name	Affiliation, Background	Comments
		10/05/2011 via e-mail and thanked her for her participation and mana'o (thought, idea)
Kajiware, Dr. Robert	Head Librarian, Kaua'i Community College	CSH mailed the initial contact letter on 11/05/2011
Kamai, Ms. Missy	Archaeological Monitor, Cultural Surveys Hawai'i.	CSH called Missy Kamai on 09/23/2011, who recommended Cheryl Obatake-Lovell and Kaliko Santos as community contacts for the proposed Project. CSH e-mailed Ms. Kamai the contact letter on 10/04/2011.
Kaumuali'i Hawaiian Civic Club		CSH e-mailed the initial contact letter on 11/08/2011
Kealoha, Mr. Keone	Executive Director, Mālama Kaua'i	CSH mailed the initial contact letter on 09/29/2011. CSH sent a second letter on 11/03/2011
Kelekoma, Mr. Kalen	Site, Facilities and Program Manager, Waipā Foundation	CSH e-mailed Mr. Kelekoma on 11/18/2011 about the Project and for contact information for Mr. Charlie Pereira. Mr. Kelekoma emailed CSH on November 21, 2011 with information
Lovell-Obatake, Ms. Cheryl	Kupuna	Ms. Lovell-Obatake was referred to CSH by Ms. Kamai. CSH mailed the initial contact letter on 10/08/2011. CSH sent a second letter on 11/03/2011
Madayag, Mr. Moises	Curator, Grove Farm Homestead Museum	CSH called Mr. Madayag on 10/17/2011. CSH e-mailed the community contact letter on 10/17/2011. CSH called Mr. Madayag on 11/22/2011 who indicated that he was compiling information for CSH including maps and the 2003-2007 Puhi Camp reunion. He also provided referrals. Mr. Madayag e-mailed some information to CSH on 11/10/2011 and 11/11/2011. CSH responded via e-mail on 11/11/2011. CSH e-mailed Mr. Madayag again on 11/17/2011 and called to follow-up on 11/22/2011
Makanani, Kupuna Mabel	Former Puhi Camp resident	CSH called and left a message on 10/16/2011. CSH called and talked to Mrs. Makanani on 10/21/2011. She asked CSH to

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

59

Name	Affiliation, Background	Comments
		contact her in November and interview her after Thanksgiving and/or the first week of December. CSH mailed the initial contact letter on 10/24/2011. CSH called on 11/22/2011 and invited Mrs. Makanani for a site visit on 12/05/2011. Mrs. Makanani asked to be called and reminded of the visit again. See Section 7.2 for the site visit transcript
McClure, Ms. Amber	Kama'āina	CSH called on 10/21/2011 and again on 10/26/2011 and left messages. Ms. McClure called on 11/02/2011 and left her address. CSH mailed the initial contact letter on 11/03/2011. CSH called on 11/08/2011 to follow-up and Ms. McClure referred her mother, Daphne Hirokane McClure, who has family buried in the cemetery located next to the Project area. Ms. McClure also sent e-mails to CSH on 11/08/2011, 11/09/2011, and 11/12/2011. CSH called Ms. McClure on 11/16/2011 to verify a meeting on 11/05/2011. Ms. McClure provided a brief statement shown in Section 6.4. Refer to Section 7.2 for the site visit transcript
McClure, Mrs. Hirokane	Former Puhi Camp resident	CSH called Mrs. McClure on 11/09/2011. Mrs. McClure received Project information from her daughter, Amber McClure. Mrs. McClure stated she has her father and brother, as well as close family members buried in the cemetery located next to the Project area. She indicated that she will contact others (Robert Agena, James Amimoto) familiar with the area and that she is available to be interviewed on 12/04/2011. Mrs. McClure noted she will call CSH to confirm. CSH called on 11/16/2011 but could not leave message. CSH called on 11/22/2011 and spoke with Mrs. McClure about the 12/05/2011 site visit. See Section 7.2 for site visit transcript

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

60

Name	Affiliation, Background	Comments
Nāmu'o, Mr. Clyde	Office of Hawaiian Affairs	CSH mailed the initial contact letter on 09/29/2011. CSH sent a second letter on 11/03/2011. OHA responded with letter dated 11/17/2011. Refer to Appendix F
Okubo, Mr. Suemi	Old Puhi Camp Reunion Participant	CSH mailed the first contact letter on 10/15/2011 but the letter was returned to CSH on 10/25/2011
Pereira, Mr. Charlie	Kupuna who grew up in Niumalu	CSH mailed the initial contact letter on 11/15/2011. With assistance of Kalen Kelekoma, Mr. Pereira was contacted on 11/18/2011 for an interview on 05/08/2011. Refer to Section 7.3 for his interview transcript
Pratt, Mr. David	Treasurer, Niu Pia Land Company Acquainted with residents associated with Puhi Camp.	Mr. Pratt wrote on 08/24/2011 in a letter to Mr. Earl Matsukawa of Wilson Okamoto Corporation that he would be happy to help Mr. Hal Hammatt connect with people at Grove Farm Company, Inc., or Grove Farm Homestead Museum. CSH mailed the initial contact letter on 09/29/2011. Mr. Pratt replied on 10/21/2011
Requilman, Ms. Mary	Director, Kaua'i Historical Society	CSH mailed the initial contact letter on 10/08/2011. CSH sent a second letter on 11/3/2011
Rossi, Ms. Pualiliimaikalani	Instructor, Department of Hawaiian Studies, Kaua'i Community College	CSH sent the initial contact letter on 11/15/2011
Sakoda, Mrs. Bernie	Former Puhi Camp resident	CSH mailed the initial contact letter on 10/08/2011. CSH sent a second letter on 11/03/2011. Mrs. Sakoda replied via e-mail on 11/4/2011. CSH emailed Mrs. Sakoda on 11/08/011. Mrs. Sakoda responded on the same day. CSH emailed Mrs. Sakoda again on 11/08/2011 regarding possibility for interview. CSH called Mrs. Sakoda on 11/15/2011 and again on 11/16/2011. Mrs. Sakoda verified her availability for the 12/05/2011 meeting. Refer to Section 7.2 for site visit transcript

Cultural Impact Assessment for the Kaua'i Community College Redesign of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

61

Name	Affiliation, Background	Comments
Santos, Ms. Kaliko	Office of Hawaiian Affairs	CSH mailed the initial contact letter on 09/29/2011. Ms. Santos e-mailed CSH on 10/03/2011 and provided several referrals
Sasaki, Mr. Henry	Former Puhi Camp resident	CSH mailed the initial contact letter on 10/15/2011. CSH sent a second letter on 11/03/2011. CSH received a returned letter on 11/14/2011, stating that Mr. Sasaki had passed away
Takahashi, Mr. Dennis		Mr. Takahashi received Project information from Mrs. McClure. CSH met Mr. Dennis Takahashi on 12/05/2011 during the site visit and CSH sent him a follow-up letter on December 21, 2011. Refer to Section 7.2 for site visit transcript
White, Mr. Robert	Niumalu resident	CSH e-mailed the initial contact letter and maps on 11/16/2011. Mr. White responded via e-mail to CSH on 11/18/2011 about availability for a phone interview. CSH interviewed Mr. White on 12/07/2011 at his residence. Refer to Section 7.5 for his interview transcript
Yap, Mr. Keith	Vice Chair, Kaua'i/ Ni'ihau Island Burial Council	CSH sent letter on 10/08/2011. CSH sent a second letter on 11/03/2011

6.1 SHPD Response

CSH mailed the initial contact letter on 09/29/2011 and a second letter on 11/03/2011 to Ms. Piu Aiu of the SHPD. Ms. Cayan responded on behalf of the SHPD with a letter dated 1/03/2012. The letter stated that, "the rezoning from agriculture to urban district always raise concern that range from cultural practices for access and gathering to spirituality at sacred sites, to protecting ancient burials—all potential issues should the project expose or degrade such cultural resources and/or sites in this very large area."

The SHPD recommended consulting with as many Kaua'i groups/folks as possible and provided names of potential community members with their contact information. Refer to Appendix E for a copy of the response letter from SHPD.

6.2 OHA Response

CSH mailed the initial contact letter to Mr. Clyde Nāmu'o, Administrator of OHA, on 09/29/2011. In a written response to CSH dated 11/17/2011, Mr. Nāmu'o recommended consulting with two Hawaiian Immersion Schools located on the KCC campus, Pinana Leo o Kaua'i and Kawaikini New Century Public Charter School (see Appendix F). The letter also identified the Puhi Camp Cemetery and stated that, "while it appears this cemetery is excluded from or outside of the DBA petition area, OHA believes it should be considered because of its location." OHA recommended consulting with lineal descendants of those buried in the cemetery.

6.3 Statement by Mr. Frederic Ellamar

CSH initially contacted Mr. Ellamar by telephone on 10/14/2011 and on 10/21/2011 and mailed the initial contact letter on 10/24/2011. CSH called on 10/26/2011 and spoke with Mr. Ellamar who stated that there is an old graveyard inside the camp [Puhi], very close to a reservoir. He explained that there is a reservoir inside as well as outside the camp and the burials are near the inside reservoir. He noted that, "You can't stop progress. Kaua'i is overcrowded." He grew up in the 1950s and can remember life back then. Now, he describes Kaua'i as having cars bumper-to-bumper, and overflowing with people. Mr. Ellamar called CSH on 10/28/2011 and stated that, "My concern is just about the graveyard and [to] put one plaque or something to signify the Old Puhi Camp. I don't want no other discussion already. That is my final input on this matter."

6.4 Statement by Ms. Amber McClure

CSH initially contacted Ms. McClure by telephone on 10/21/2011 and again on 10/26/2011 and left messages. Ms. McClure called on 11/02/2011 and left her address. CSH mailed the initial contact letter on 11/03/2011. CSH called on 11/08/2011 to follow-up and Ms. McClure referred her mother, Daphne Hirokane McClure, who has family buried in the cemetery located next to the Project area. She also provided the following statement: "The area [cemetery] needs to be taken care of, and if there are any plans to disturb or alter that area, the family should be notified."

Section 7 Interviews

Kama'iaina and kūpuna with knowledge of the proposed Project and study area participated in semi-structured interviews for this CIA. CSH attempted to contact 32 individuals of which 22 responded and eight participated in formal interviews from September, 2011, to February, 2012. CSH initiated the interviews with questions from broad categories such as wahi pana and mo'olelo, agriculture and gathering practices, freshwater and marine resources, trails, cultural and historic properties, and burials. Participants' biographical backgrounds, comments, and concerns about the proposed development and study area and environs are presented below.

7.1 Acknowledgements

The authors and researchers of this report extend our deep appreciation to everyone who took time to speak and share their mana'o with CSH whether in interviews or brief consultations. We request that if these interviews are used in future documents, the words of contributors are reproduced accurately and not in any way altered, and that if large excerpts from interviews are used, report preparers obtain the express written consent of the interviewee/s.

7.2 Site Interview with Ms. Audrey Kawado, Kupuna Mabel Makanani, Mrs. Hirokane McClure, Ms. Amber McClure, and Mr. Dennis Takahashi

CSH met with and accompanied five community contacts, Ms. Audrey Hirokane Kawado, Kupuna Mabel Makanani, Mrs. Daphne Hirokane McClure, her daughter Ms. Amber McClure, and Mr. Dennis Takahashi, on December 5, 2011, to tour several sites of the former Puhi Plantation Camp, now part of the Kaua'i Community College, in Lihue'e, Kaua'i. The entire group, with the exception of CSH staff and Ms. Amber McClure, was raised in Puhi Camp. As mentioned above, Puhi Camp was built for Grove Farm plantation workers in the early 1920s. In 1974, an area consisting of about 200 acres of the camp became part of what is now KCC.

At 84 years old, Kupuna Mabel Makanani was the oldest member of the group. With the possible exception of one other family, Kupuna Makanani's family was the only Native Hawaiian family in Puhi Camp. At the start of the site visit, she provided CSH with a written statement where she summed up her life in Puhi Camp. The following is entirely Kupuna Makanani's words, with the exception of two words in brackets included by CSH for clarity:

This is what I remember as a child growing up in Puhi. It was a typical plantation-style camp. We all grew up together as one people, although we lived in homes by race. I think my dad was the only pure Hawaiian in the camp, with the exception of Mr. Malaia, I'm not sure if he was pure, but he spoke the language, I often heard them together. We lived in rows by race and shared cultural practices in music, dance and games, even movie nights, where we had a Hall for movies and monthly events---Filipino movies, Japanese, English, etc. The only people that

lived away from us were the Chinese---they lived in a valley close by, called "Pake Valley."

We lived simple lives. Grove Farm gave us [land], who ever wanted a piece of land to grow vegetables and we shared what we grew with each other. We bought from our crops.

Someone in the camps also raised (bee) hives. Going swimming up in the hills, called "Cement Pond," we passed the bee hives and if the owner was there, he'd give us some honey dripping from the wax and it was a treat for us.

We learned a lot growing up in a camp especially the different kinds of instruments different races used and their cultural customs and dances; for me, born and raised in Puhi was great, [I] learned the background of my mother and was amazed at all the instruments my dad could play. My mom taught me everything she knew from her mom. I was raised as a Catholic and followed all.

Stating that her heart is here in Puhi Camp, Kupuna Makanani explains what made it special:

I was born and raised here. It was a different lifestyle. It was one people. A generation of one people. No matter who you were, you recognized each other. It is not like today.

The first stop of the Project site tour was at the Old Puhi Camp Cemetery, which is divided into two sections, a Japanese cemetery and a Filipino cemetery. Although there were other ethnicities such as Portuguese people who worked in Puhi camp, most of them chose to be buried elsewhere. As she looked over the old graves, Kupuna Makanani voiced her concern about the protection of the remaining Puhi Camp places, especially the cemetery.

Beside her was Mr. Takahashi who also expressed his worry that no one will be left to take care of the cemetery (Figure 29). Although many of the graves were removed by families already, there are still some that remain. He recalled that when he was a young boy, a group of Japanese workers kept a community fund to be used to maintain the graves. Once a year, before the Obon festival, the designated group would come and clean up the graves using hoes and rakes. Mr. Takahashi would assist in caring for the graves, something which he continues to do so even now.

While at the Puhi Camp Cemetery, Mr. Takahashi pointed to a proposed Project area aerial map and asked if the proposed re-zoning would affect the cemetery and caused a disturbance of burials. To him, it seemed from the aerial map that the Project would be developed very close if not in the actual area where the cemetery is. Both Kupuna Makanani and Mr. Takahashi stressed the need for Puhi Cemetery to be taken care of, as the current volunteer caretaker, Mr. James Kazuo Amimoto, is getting older. In addition, both sides of the cemetery need to be maintained, including the Filipino side which contained more weeds than the Japanese section.



Figure 29. Mr. Takahashi shows Old Puhi Camp Cemetery (CSH 12/05/2011)



Figure 30. Headstones at Japanese side of Puhi cemetery (CSH 12/05/2011)

Besides some of the graves in the Japanese cemetery are vases for flowers (see Figure 30 above). Mr. Takahashi admits that one of his goals is to get all the headstones cleaned and then translated by a Buddhist priest. He has always been interested in learning about Kaula's history and genealogy. Since he was young, he has made it a point to read old newspapers and spend time with elders. "You know after the older generation pass on, the younger ones, they [are] not gonna know nothing, yeah," Mr. Takahashi states.

Kupuna Makaanani's father drove Grove Farm's train. According to her, men had the freedom to move all over the place. Her father was George Makaaniole, and he drove Train Number 1. When the plantation days were over, his train was sold to China. Somewhere possibly in Grove Museum, there is a nice picture of her father posing with the Number 1 train.

Mr. Takahashi's father was Takeshi Takahashi, who was a machinist for Grove Farm, and his mother was Katsuko Takahashi, who worked for Kaula's Inn and Kaula's Surf Hotel. His parents had three boys, and Mr. Takahashi was the middle child. He was born in 1945, in Lihue, and his family moved to the camp in the early 1950s. Although his parents did not attend college as they were too busy working for their families starting from a young age, they instilled the importance of a college education and as a result, all of the Takahashi boys went on to college, with Mr. Takahashi obtaining a degree in business management. He later worked for Times Supermarket in Honolulu, and retired in 2007.

Although Mr. Takahashi noted that he understands the school has to grow, he considers the preservation of the Puhi Camp cemetery to be of utmost importance. After pointing out to CSH how erosion is causing some of the headstones to be close to toppling over, Mr. Takahashi also remarked how big trees near the graves should be removed in case a big storm could cause the tree or its branches to fall and destroy the headstones.

When asked about the proposed Project, Mr. Takahashi commented:

...The development is okay, but they should preserve you know the past, yeah. Because this is supposed to be the final resting place of the people, ah. You know, who worked on our plantation...so they shouldn't be disturbed.

The significance of the continuing relevance of the Puhi Camp cemetery to the living community was underscored during the site visit, when shortly after Mr. Takahashi expressed his recommendation for preservation, Mrs. McClure discovered the grave of a relative, Alice, located in the cemetery (Figure 31). Up until that point, she had no idea that her cousin was buried in the cemetery, and using the headstone as a guide, she narrated to the group about her family ties and memories of her cousin Alice, who passed away at 30 years old and who was married to Tomas. Kupuna Makaanani also shared her memory of Alice as a young girl and how much she enjoyed playing with paper dolls.



Figure 31. Mrs. Daphne Hirokane McClure discovers her cousin Alice's grave in Puhi Cemetery (CSH 12/05/2011)

Like Mr. Takahashi, Kupuna Makaanani would like the place to be preserved, relating an additional recommendation that in her opinion, families who still have ties to the cemetery and Project area should be consulted before anyone else, and that Project proponents should take care of the preservation financially:

... I would go along with whatever the people who live here, the people who have families here, their concerns would be number one...If ever in time that they would still continue to develop, then I think the community should make an amendment where whoever is building, would provide a separate place for them and take care of all the finances to remove and to preserve and to set up.

Kupuna Makaanani recollected that when she was growing up, she remembers how it was possible to bury family members around one's residence. It does not surprise her that now, burials are found whenever there is a construction being done or building being renovated. The only people who would know and who should be consulted are those who lived in the area, and if graves are unknown, it illustrates the need to continue to care for the place and for the new generation to have the information to do it. This makes it even more crucial to have meetings and exchange of cultural information, much like the site visit tour for the Project CIA. States Kupuna Makaanani:

That the people would...get together like how we're meeting, cultural...It's the ones that [are] left behind that plant the importance of their ancestors to upkeep.

Mr. Takahashi pointed out how some of the graves in the Filipino side of the family are those of Filipino veterans who have no known family, and only crosses in the ground were put for their

burial. It would be ideal if somehow, relatives of these veterans would be able to find them and be reunited. He decried the forgetting of one's roots and expressed his hopes that the younger generation would continue their ties to their culture and family tree.

Indicating a grave with an "Unknown" in the marker, Mr. Takahashi stated the following:

Maybe...whoever this is, has relatives in the Philippines. Maybe they've been over here but they have no family here and he died. But, we don't know who this person is.

Both Kupuna Makaanani and Mr. Takahashi related the history of Filipino migrants to Hawai'i, how Filipinos came to Hawai'i starting in the early 1900s as contract laborers, "sakadas," searching for a better place to live. They remarked on how Filipinos maintain their ties to the Philippines by supporting their families through remittances. The group found one Filipino veteran's grave that dated back to World War I. In addition, there are children also buried in the graveyard. One grave was that of a two-month old baby buried in the Filipino side of the Puhi Cemetery (Figure 32).



Figure 32. Grave of a two-month old baby in Puhi Cemetery (CSH 12/05/2011)

Given this example and others, Kupuna Makaanani emphasized that whatever can be preserved should be done so because soon, people are not going to be able to have control of what they know. She cites the example of Mrs. McClure finding the grave of her cousin. Although the toll of time has taken its toll, finding her grave is a good example of the value of conserving one's past.

Like Kupuna Makaanani, Mr. Takahashi remembers the old days with fondness, describing when everybody was like one big family. For him, it was the close-knit feeling of community and family, where people knew each other and looked after one another.


<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Interviews</div> <div><p>...All the different nationalities...you know all the da kids, eh? We were so close. You know we go to each others' homes...people just open up their home, [share] da food. You normally have like weddings, birthday parties, all kinds [of] parties you know. We intermingle with all different nationalities. Everybody was on an equal basis, eh. Which is, you know, rare today, eh.</p><p>Despite the fact that various accounts of plantation life portrayed it as a harsh, unfulfilling life, Mr. Takahashi relates that the Wilcox family treated their workers very well and life was enjoyable in Puhi Camp. According to Mr. Takahashi, everyone who was a Grove Farm worker agreed that they were looked after by the Wilcox family, and people were provided the opportunity to own their own home.</p><p>Families shopped for groceries in plantation stores, and bought items using credit, to be paid for when payday came. As a young child, Mr. Takahashi was given the specific job of tending to the vegetable garden. For extra money, he cleaned the yards of neighbors. The Takahashi family moved out of Puhi Camp in 1969 when Grove Farm built a subdivision across the road from what is now KCC, selling the lots to workers.</p><h3>7.2.1 Strikes and Unions</h3><p>Both Mr. Takahashi and Kupuna Makanani described the strikes and the effects of unionization on Puhi Camp. During one strike in the 1960s, plantation workers had a soup kitchen provided by the union that was able to provide them food. Mr. Takahashi relates how each dinner time, each family would be given their allotted share of rice and main dish. Workers would bring their pot so it could be filled with rice as well as the viands for the day. If the family had several children, the soup kitchen provided enough for each member. The soup kitchen lasted as long as the strike. Mr. Takahashi recalled one particularly long strike, which lasted six months.</p><p>The strikes of Grove Farm plantation workers were mostly peaceful affairs that did not turn bloody as the one in Hanalei in 1924, when 16 Filipino workers were killed along with four local policemen. Mr. Takahashi put it this way:</p><p>Yeah, they would picket, but in the meantime you know everybody had to report and then take care of the garden because no more food!</p><p>Although most Puhi Camp residents had their own garden they used to supplement their meals, the main source of food during strikes was the soup kitchen, which Mr. Takahashi noted as a "real humble experience." But those were the times too, when the community came together, and when all the workers from different nationalities would "chip in" and work "side by side." Life during strikes was undeniably difficult, according to Kupuna Makanani:</p><p>It was hard, but you know, because we lived simple lives you know we survived. It was like, "Oh my goodness, what's gonna happen now...we have no food!" But we were...we were standing in line for food.</p></div> <div><div>Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihama, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.</div><div>70</div><div>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div>	<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Interviews</div> <div><p>The transition from non-union to union came in 1946 and was not without controversy. With unionization came changes, some as major as housing which no longer was provided free to workers. Kupuna Makanani asserts:</p><p>We had free water, free house, we had everything free! Our equipment to play was free, the plantation would provide bats and balls and everything that the kids needed...</p><p>Once the union came in, there were stipulations that were made. Kupuna Makanani listed some of the advantages before the unionization of workers:</p><p>You don't have to pay house rent...you don't have to pay water, you could use as much water as you can, you know...there it was. The pay was very small but you learned to live without...You don't go over it, you live without...And everybody trusted each other. Not like today...you gotta lock doors and lock windows and put alarms and you see these people doing that in the house and it's sad because who do you trust? There's no trust.</p><h3>7.2.2 Everyday Life in Puhi Camp</h3><p>The group also reminisced about life each day in the camp. Some of Mr. Takahashi's favorite memories of growing up at Puhi Camp included making swords from straight tree branches and swimming in one of the three reservoir ponds, which were clean. Pointing out the type of vines he once used, Mr. Takahashi shared how he would cling to the vines to swing about and imagine he was Tarzan (Figure 33).</p></div> <div><div>Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihama, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.</div><div>71</div><div>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div>
---	---

Figure 33. Mr. Takahashi shows the type of vines he used as a child (CSH 12/05/2011)

<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Interviews</div> <div><p>He recall searching for special h[is] slapew drancles from guava or strawderry guava trees and breaking it off in order to make lomemave slingslots using the inner tube from wheels of old cars. With the slingslot he and his friends would practice by shooting peddles at bottles before attempting to hunt for birds. Laughing at the memory he admitted he failed at catching birds with his slingslot.</p><p>It was a great childhood for Mr. Takahashi. For him, a typical day involved attending Lihue School in the morning and after school he would work on his clogging firewood to eat up water. He collected firewood from eucalyptus trees surrounding the camp which were plentiful in the Wilcox family years ago. The Wilcox family allowed their employees to utilize the trees for their firewood.</p><p>After classes and school he would visit friends and they would wait for him to visit their houses. One of his former neighbors was a Filipino family who had one of the first televisions in the camp. Mr. Takahashi chuckled at the memory of how he and all the other children in the camp would go to the house with the television and watch it during the 3B's.</p><p>Mr. Takahashi also explored the irrigation tunnels with friends such as Mrs. , and Mrs. McClure who are sisters. Mrs. McClure was born in 1911 and her memories of buli Camp in the 3B's remain clear. She vividly remembered the ways when houses stood side by side where current roads now run and when the road to the buli cemetery was once covered with camp buildings. Mrs. McClure lived in the camp until she went away to college in 1936 and by the time she came back the camp was already gone. However, her daughter Amdel helped capture some of the memories on film when she recovered the oral histories of former buli Camp residents for her ethnographic film <i>From Where We Come</i>, in fulfillment of a master's degree for University of London.</p><p>Kupuna Makanani was the youngest of three siblings and was two older brothers. When she was growing up she was raised differently from them in the sense that it was a more protective manner. However, she was involved in activities such as swimming in the irrigation ditches with her school friends. She remembered:</p><p>All of the kids swam. I remember Sligeno Amimoto...behind where they lived, there was an irrigation ditch... we would put on our swimsuit and swim in the ditch because it wasn't polluted, you know...and we would go down the stream together.</p><p>She recalled that there were softball teams for boys and girls with different ethnic groups having their own games. For example, Filipinos had "siga," which consists of the player continuously trying to hit a designated "mark" on the side of their feet without losing the "mark." Kupuna Makanani shared how the games were "so good" and enjoyable.</p><p>Like many others in buli Camp, Kupuna Makanani attended Lihue Grammar School and walked with her brothers to go to school until the time came when she was forced to walk to school. World War II began when she was in high school and she decided to sneak out and sign up to work in the Kapa'a Pineapple Cannery. Eventually her family especially her brothers found out that she was working as the truck from Kilauea came very early to pick up all the workers. One day her brother saw her and was committed to working:</p></div> <div><div>Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihama, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.</div><div>72</div><div>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div>	<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Interviews</div> <div><p>...I said, "No, but all my friends in high school they fine working...I never wanted to sit and do nothing. I wanted to do something. And so they couldn't do anything]]]]I signed up already.</p><p>Kupuna Makanani continued to work while she attended school. She worked only on weekends and during vacations:</p><p>...Every summer I would go work. What we had [was] office work at the coffee building, we had different things that you could go. But, because my family didn't want me to go work I stayed in class. And unless on Fridays this was every Friday they could go. The boys would put up dardwire you know all the kids at deacles and whatever you would work and the girls would work in the office or where ever work was needed. Eah...so it was like...but it was good because I got to work.</p><p>Like the majority in buli Camp her family maintained a vegetable garden. In addition to all kinds of vegetables, Kupuna Makanani shared memories of her mother's flower garden:</p><p>My mom loved flowers so we had all kinds of flowers. She loved everything from lilies to orchids to ferns and maijen hair...I remember conifers. We used to come and tell her, "Please we want you to take out your maiden hair," she had gorgeous maijen hair...all different varieties, begonias...Our yard was full of flowers, tudosej rosesj for4 my new every weekend my mom would make a fat for him...for4 riving or where ever we would go.</p><p>Her mother would also make all of her father's leis, using the flowers growing in her garden.</p><p>Kupuna Makanani recalled how much her father loved roses and how carnations bloomed along the walkway from the gate to their house in buli Camp. There were always two patches of carnations along the path.</p><p>One of the few buli Camp places that is left is the cement house which has been converted to become the Pūnana Leo o Kaula's School. Kupuna Makanani took the group to the site of her former house that once stood in the upper part of buli Camp. Although the house is no longer standing a large mango tree that once served as a landmark still remains (Figure 34).</p><p>She described a valley that went down past her childhood home which was the family's original vegetable garden. Across the street from their house was a vegetable garden for everybody.</p></div> <div><div>Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihama, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.</div><div>73</div><div>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div>
---	---



Figure 34. Kupuna Makanani tells of her childhood home, marked by mango tree in background (CSH 12/05/2011)

Although Kupuna Makanani's father knew many legends, he did not readily talk about them to the family as he was "very protective" of them. She was raised as a Catholic while her father was born into a Mormon family. She identifies with her Portuguese background, stating:

So we were brought up Catholics, you know to worship God and do all the right things and so my dad was born a Mormon so it's two different lines of worship. Although you are worshipping God, but the rules was different. But, my dad never did stop my mom from raising us as Catholics but he stopped going to Mormon church [temple]. I think he was ordained as an elder. I remember something about him going into the Mormon temple so you have his family, my dad's family were Mormon, very strong Mormon. My mom's family was coming from Portugal so the [maternal] line is Catholic. And my great-grandparents served the priests and took care of the priests and their house and their clothes. And so that tradition came to Hawai'i with my grandmother, so my mom has that tradition. Now I'm born, I do the same thing.

Her Catholic faith is a source of strength and to serve God is the reason why she maintains her involvement in numerous activities helping others:

It's that culture steering me to serve the one God. And so I'm still doing it and...I go back in time and it's telling me that my generation for my ancestors were serving God from the beginning. It's from Portugal coming here. My grandmother lives in Kōloa and goes to that church. It's still that church and that ministry...I'm

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihau, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

74

born and raised in that same line of service and that's what I do today. I serve the Lord whatever. And it's always in hospitality. You know, it's serving. Making food for the ones who need, taking care of those that don't have nothing, you know you give, that's my life...that's my life.

Sharing her mana'o about the Project area is part of her desire to serve:

I feel for the people because I grew up here in a wonderful time. You know, we didn't steal from each other...if your neighbor needed something, they could come to your house and go through your cabinets and take whatever they need and then the next day they would bring back. Somebody is sick in the camp...so you raise chickens, ducks, pig or whatever you make something and you would bring to their house...You never had to call, "Oh so and so is sick, can you provide a meal?" Not before, before it came natural. You serve your friends, your neighbors and you don't think of their color, creed or whatever. You know they're neighbors, they're friends, you're growing up with them, you learn from them.

Kupuna Makanani lived in Puhī Camp until her early years of marriage, and moved only when her own house was constructed in Waihua Houseclots, the first house in that area. Even after she and her husband moved and had a child, her parents remained in Puhī Camp and took care of her daughter during the day. She learned to shoot with a .22 rifle with her husband, and practiced by taking shooting cans with her rifle before hunting for pheasants with her husband when he came home from work. Once they caught a pheasant, they would return home and roast the pheasant. She credits her childhood growing up with many ethnicities for her ability to enjoy eating different kinds of foods and being appreciative of other cultures:

So now, I can eat any other food, I can go to any party and I can say, "I can eat that," not, "I don't like that, it doesn't look good" or you know, "I don't want that." We were brought up different, our generation is really different...to appreciate one another and love them...

These days, Kupuna Makanani's daily diet consists of mostly vegetables and fish. She likes to eat everything, but does not care too much for meat. Her advice is not to overdo eating. She usually bakes her food and sometimes fries it. In particular, she loves baked salmon and fried fish. As for sashimi, she does not eat it probably because when her children were growing up, she gave them sashimi and she did not acquire a taste for it. But she enjoys eating poke which her children did not favor when they were little.

7.2.3 Foodways in Puhī Camp

Throughout the Project area tour, the group freely recalled many memories which involved the tastes of their childhood and how the food incorporated the marine and plant resources around them. Kupuna Makanani shared that whenever her family needed some vegetables, they would go to their garden, or forage for bamboo shoots by the back of the three reservoirs which

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihau, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

75

were connected and had bamboo on one side. This is where many people in Puhī Camp came to get their bamboo shoots. They also took care of their own chickens as well as ducks.

Mr. Takahashi described foraging during spring for young bamboo shoots, called "*takenoko*" by the Japanese and hunting for a type of fungus called "pepeiao" (edible jelly fungus) which were gathered around the camp boundaries. For seafood, he and his friends fished for crayfish by lowering lines with small meat bait, and they also caught fish like bass in the reservoir.

The pepeiao was prepared by Mr. Takahashi's mother to be fried or cooked with chop suey, chicken or pork. Chickens were usually bought from the store as the wild chickens tended to roam in the valley away from Puhī Camp, but there were lots of wild boars that could be hunted, which Mr. Takahashi's uncle regularly did.

For treats, he and other children would usually enjoy homemade goodies like pickled green mangoes and guava jelly and jam. The children were sent off to pick ripe guavas on the roadside to be used for making preserves and for juice. Mr. Takahashi reminisced how his mother would squeeze the guavas for their juice and freeze the juice in ice trays. Passion fruit juice was also a favorite, which grew in vines all around the Project area (Figure 35). Mr. Takahashi shared his memories:

That passion fruit, you know, that vine that's growing wild, in the summer time, the thing [fruit] drops, and then we would take 'em home and squeeze 'em, eh, and make passion guava and mix the two together, eh.



Figure 35. A passion fruit flower grows in the Project area (CSH 12/05/2011)

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihau, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

76

As for pickling mango seeds, his grandparents, aunts, and uncles would make these by taking green mangoes, peeling their skin, cutting them and drying them for about two days before boiling them in sugar and adding Chinese spices like five-spice. Mr. Takahashi describes the fibrous seed as the "best part, because all the flavor would soak into that." He laments that nowadays, hardly anyone makes pickled mango seed from scratch anymore.

There was a small mom-and-pop store in Puhī Camp that was run by the Funada family, and in addition to canned goods and everyday items, there was dried abalone available in glass jars. For about 50 or 60 cents, each child could get a nice chewy slice cut from the big piece that could be chewed for what seemed like hours. "Real delicious, eh. Today so expensive you can't even buy it now," Mr. Takahashi notes. The Funada store was located in the Puhī Camp area. There were three stores in Puhī Camp, including a Chinese meat market.

Gathering and hunting for tasty edible food sometimes took on a competitive edge. The search for bamboo shoots or *takenoko* took on a more competitive edge as people came up with ways to try and hide the tender shoots that sprout up after storms. Kupuna Makanani states:

We used to go when it stormed, yeah, when it stormed, the bamboo would grow and so we'd always get our grab bags and a clean knife or a sharp knife and we'd go right across the street. Yeah, we used to wear long sleeves, shirt and then dig and then you cheat because some people know that...maybe [a] couple of weeks more rain...it's gonna come up so they cover it. Yeah.

The *takenoko* had to be harvested before it got too hard and too bitter, as both characteristics become more pronounced, the older the bamboo shoot. It therefore needs the right time to grow before being picked. To help ensure that, people would cover the place with dirt and hide the shoot until harvest time. The group reminisced how much fun it was to walk around and try to see if there were shoots underneath small piles of freshly dug earth (Figure 36).

The preparation of the *takenoko* involved boiling and changing the water. Kupuna Makanani recalled that her mother boiled and changed the water which was red, and Mr. Takahashi shared that once the water is clear or white, then the *takenoko* is ready to be eaten. Slices were enjoyed in chop suey and other stir fried dishes and also in *nishime*, a Japanese stew made with root vegetables.

The group then walked to an irrigation ditch, where Mr. Takahashi pointed out the minnows and other small fish swimming in the low-level water. He described how he and other children would frequently wade in the water through a tunnel. Mr. Takahashi noted how he used to catch frogs in the ditch and bring them home so they could be fried, "like chicken." Toads were another matter, though, and when they appeared at night with their big eyes gleaming, the toads scared Mrs. Kawado.

Going through the tunnel was an exciting, scary adventure for the young Mr. Takahashi and his childhood friends Mrs. Kawado and Mrs. McClure (Figure 37). He stated:

Cultural Impact Assessment for the Kaula's Community College Redesign of Urban District Project, Niwiliwili, Niihau, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

77

Small kid time we used to play. You could walk all the way to outside, yeah. Even when the water is like this, not too bad. You know, you can walk through, eh. This is the tunnel that go under the road...We used to catch frogs over here, too.



Figure 36. A picture of *takenoko* growing in the Project area (CSH 12/05/2011)



Figure 37. Mr. Takahashi and Mrs. McClure indicate the irrigation ditch that leads to a tunnel which they explored as children (CSH 12/05/2011)

He shared that he would make spooky sounds to scare the girls while they were going into the tunnel and they would respond with screams, prompting Mrs. Kawado to remember how she did not like going through the tunnel.

Besides frogs, Mr. Takahashi would also catch crayfish in the irrigation ditches and the reservoirs. According to Mr. Takahashi, crayfish looked and tasted a lot like regular shrimp and was delicious when pan fried with shoyu and sugar. He detailed how he would catch them, employing pieces of meat like pork dangled in the water using a fishing line.

What we do is catch it...and then we'd lure it and then the thing would just grab onto the meat and then roll and pick it up and then we would have a bucket...Little meat fire 'em up through a string or a fishing line, yeah. No hook or anything, but the thing would come out and then with the hook, that pincher they'll go for the meat, eh and get stuck on there. And you gotta be real careful you know and they fall off... Just shake 'em and they fall off 'cause there's no hook, yeah.

'O'opu also flourished in the irrigation ditches and reservoir and were enjoyed by Mr. Takahashi and other Puhī Camp residents. However, he believes that 'o'opu are no longer present. 'O'opu was pan fried, sometimes flavored with shoyu and sugar. "Lot of bones, but the thing was delicious," he recalls.

A gate to control the water flow to the irrigation ditch still exists, indicated by Mr. Takahashi, who noted that Grove Farm still likely owns the water rights. For Mr. Takahashi, the gate remains an integral part of history as it provided water to the ditches and reservoirs and regulated the flow to prevent floods.

At one point during the site tour, the group came upon a papaya tree full of flowers. Kupuna Makanani illustrated how she would use the flowers to make into leis (Figure 38). Both Kupuna Makanani and Mr. Takahashi enjoyed green papaya soup with chicken, or chicken tinola, a Filipino dish. Another fond memory the group shared among one another was the regular baking of fresh bread, which were usually done on Tuesdays along with *malasadas*. Even the yeast was made by hand, with a little piece taken out, used and replaced each baking.

During baking days at Puhī Camp, the job of the children would be to gather the wood and keep the fire going. The children would be given a special kind of bread baked in a long pan, like a muffin pan, made just for them, according to Kupuna Makanani:

And when we were full, we would go out in play. And then the other kids would come, and they would take care [of the fire]. And they would give the kids some bread and butter. And you know because you can smell the bread coming out.

The group took note of plants that grow in and around the Project area, which also include orchids (Figure 39), koa trees, as well as fruit trees like mango, papaya, and others.



Figure 38. Kupuna Makanani points out papaya flowers she used in lei (CSH 12/05/2011)



Figure 39. A non-native orchid growing near Project area identified by Dr. Lisa Gollin, a CSH ethnobotanist and researcher, to mostly likely be *Spathoglottis plicata* (Philippine ground orchid) (CSH 12/05/2011)

7.2.4 Puhī Camp Memories

When the group hiked toward a second cemetery, referred by Mr. Takahashi as being near the "Cement Camp," located in the perimeter just outside the Project area, Mrs. Kawado reminisced about her experiences in Puhī Camp with CSH. Mrs. Kawado was born in 1945 and grew up in Puhī Camp. Her maiden name was Hirokane. She was the eldest child in a family of four children: two girls and two boys. Each child was a year apart and each one had names whose first letter corresponded with the order of their birth. Since she was the oldest, her name was "Audrey," followed by Boyd, her brother, then Chad another brother, and Daphne, the youngest, now Mrs. McClure.

Mrs. Kawado continues to cherish her memories of Puhī Camp:

...The fact that, even though all of us were from families that didn't have a lot of money, it didn't feel like we were missing out on anything because we had good friends, people take care of you...they didn't treat you like you were lacking anything...we didn't have beautiful houses; some of us had out houses, we didn't have toilets that flushed. But still...it was such a special place for me.

Each day as a young child, Mrs. Kawado would walk to Lihu'e School with her friends. During her seventh grade, they built a new school, the Elsie H. Wilcox elementary school. Her mom would prepare hot cocoa for breakfast for her and her siblings. For lunch, she would eat peanut butter sandwiches. At the time, the peanut butter in the jar was very hard to spread, so her mother would dip the spoon in a cup of warm water before using it to spoon the peanut butter spread for sandwiches.

After school, she swam in the reservoirs and fished there too. For after school treats, one of her favorites was called "V apple," a local fruit that was tart and eaten with a mixture of shoyu, vinegar, sugar and pepper. Another treat was slices of dried abalone, bought and eaten like beef jerky, confirming what Mr. Takahashi remembers.

It was Mrs. Kawado's responsibility after school to get the daily newspaper and bread at the store. She recalled the Afong store, which was also a meat market, and another store that was called Puhī store. The post office was also in the store. Her friends were Filipino, Portuguese, Puerto Rican and Japanese, and she grew familiar with their favorite foods, including the tastes and terms for each one. Mrs. Kawado also played the folk games from her friends' culture; one of her favorites was a Filipino children's game called "*panio*" or "*alapano*" where they ran around the cane fields and hid from people designated to find them.

She admitted that it was a hard life with no running water for toilets and baths taken in a "*furo*" (Japanese bath tub) where water had to be heated up by hand. Before using the *furo*, they all had to scrub and wash up to be clean, since the *furo* water would be used by everyone. After everyone had their baths, the water would be recycled to water the plants. Her father planted lots of vegetables including lima beans which grew on a wire fence. It was a happy childhood where she played with her siblings and helped out with the chores.

When she was 14, the day of her brother's 13th birthday, their father died from a sudden stroke, an event that marked in a way the end of a happy childhood. Mr. Hirokane supplemented

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews	Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews
<p>Later during the day, a smaller group consisting of Kupuna Makanani, Mr. Takahashi, Amber McClure, and CSH visited the offices of Bernie Sakoda, who was instrumental in organizing past Puhī Camp reunions. Born in 1946, Mrs. Sakoda was raised in Puhī Camp and three generations of her family worked for Grove Farm. Her father, Robert Seiyei Tokuda, was a truck driver for Grove Farm while her grandmother, Kama Tokuda, raised ten children as well as did the laundry for the working men, among her many activities.</p> <p>Mrs. Sakoda recalls her weekly chore of collecting firewood, as well as certain ingredients needed for the homemade pig stew. Ingredients for the stew included honohono grass, papayas, and avocados:</p> <p>My family thought I was crazy but I thought it was the greatest job, it was hard work but I didn't mind chopping and cooking it. We would cook it once a week and the 50 gallon slop would last the whole week. Everyday, we could re-heat some of it and put it in a can on the wagon and take it to the piggery.</p> <p>If the pig was slaughtered, all the parts of the pig was used, and nothing was left to waste. Mrs. Sakoda recalled with some pride how her family raised rabbits, ducks, turkeys, and had "a most beautiful garden" in the backyard. "We lived off the land pretty much, we can be very self-sufficient. It was wonderful times, and the community was really a solid community," she relates. Even if her parents were having hard times, she did not realize it because her father would provide meat from the family "mini-farm" as well as produce from the garden.</p> <p>Kupuna Makanani adds that no one wanted to be on welfare:</p> <p>You shamed if you were on welfare...You worked and everything went on the table. Nobody said this is mine; there was one pot for everybody. If you had a dollar or 50 cents, you were satisfied. You don't ask questions why, you were satisfied.</p> <p>All of the group members who were present, including Mr. Takahashi, Kupuna Makanani, and Mrs. Sakoda emphasized the importance of respect that was instilled in them. Mrs. Sakoda narrates that just a stare from her parents was enough to make her stop her misbehavior. But the lack of respect she sees in children brought up today may be due to the different circumstances in the home:</p> <p>You can't blame the kids, I think both parents are struggling in this age now, and both parents work. In our days, we had someone at home all the time, watching over us. The discipline was so different in the past...We were brought up in the Asian custom of "you listen to adults and you respect the adults." If we answered back, we were sent out of the room. It's so amazing how respectful we were to our parents and when we knew we were doing wrong.</p> <p>The rod was not spared either, the group agreed. Mrs. Sakoda notes that as older children, they received a spanking and they knew when it was coming. Overall, her childhood was a wonderful experience where she learned the value of not just respect but also the meaning of</p>	<p>Cultural Impact Assessment for the Kanae's Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kanae's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	<p>sharing with one another. Puhī Camp residents were from all over. For example, she cited how Japanese residents came from different prefectures in Japan as well as from Okinawa.</p> <p>Everybody's culture was different. We shared. We had "Up" and "Down" camp, and a lot of people in between. In our camp, we had a good mixture of Filipino, Portuguese, Puerto Rican, Chinese... We grew up in the community where everyone shared food...and it's not only the food, but all of their history. For us, it was playing with "<i>taiko</i>" [Japanese percussion instrument] drums and concerts with Okinawans, for the Portuguese, who did all the cooking in the outdoor oven, we baked bread. We ate "<i>kimchi</i>" [Korean fermented spicy cabbage].</p> <p>7.2.5 More Foodways</p> <p>Food was an important part of the cultural education for Mrs. Sakoda, and she relates how "<i>miso</i>" was made by fermenting beans in a huge barrel. She also shared the recipe for an Okinawan dish that plantation families enjoyed. It involves boiling down pork fat until it gets crispy. Then <i>miso</i>, sugar, and ginger are added so that it is like a paste. The crispy pork pieces are mixed into the paste and the whole thing is served over hot rice.</p> <p>Food was such an indelible part of life in Puhī Camp that during the camp reunion in 2003, the amount of food prepared was enormous. Dishes that Mrs. Sakoda credits as being part of the Puhī Camp repertoire included Chicken Hekka, Huliuli chicken, and Chicken Papaya with "<i>malunggay</i>" (<i>moringa</i>) leaves. The group then traded stories of foodways, specifically the different ways to prepare dishes from all the ethnic groups, including the taste of "<i>pansil</i>" (a Filipino noodle dish), "<i>pinakbet</i>" (Filipino vegetable stew with vegetables and "<i>bagoong</i>" (fermented shrimp paste) or shrimp with pork as flavoring. There was also mochi rice, adobo, "cassaron" (also known as "<i>bitau-bitau</i>" balls, a Filipino dessert usually served on a stick made with mochi flour, coconut and sugar).</p> <p>Even today, Mrs. Sakoda prepares many of the dishes she ate at Puhī Camp. She relates:</p> <p>I have a <i>malunggay</i> tree in my backyard because we love it so. Wild bitter melon and green beans and squash—we love <i>pinakbet</i>. We love <i>adobo</i> [Filipino dish involving meat cooked with vinegar, soy sauce, and bay leaves, most likely from Mexico].</p> <p>7.2.6 The Social Box or Box Dance</p> <p>An important part of Puhī Camp was the hall provided by Grove Farm, a gathering place near Puhī store, where people would go to have holidays, weddings, and other events. According to the group, Filipinos held an occasion called "the Social Box." At pay day once a month, all the women would prepare whatever delicacy or dish they wanted to make, such as <i>musubi</i> (rice with seaweed that usually has something such as spam or another filling), which they place into a box the size of a shoebox. They would then take the box lunches to a dance in the hall. Ostensibly, the dance was held for single Filipino men, but everybody participated because it was a fun evening, according to Mrs. Sakoda:</p>	<p>Cultural Impact Assessment for the Kanae's Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kanae's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews	Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews
<p>It was a night to go out and socialize, and we didn't have TV. at that time. The women would auction off their boxed lunch, that's why it was called a "Box Dance." They would auction off their boxed lunch to the highest bidder. The highest bidder gets to dance with them and to eat the lunch...It's like matchmaking.</p> <p>The women could also have someone prepare lunches for them if they were too busy working in the pineapple field or cannery. Mrs. Kawado and Mrs. McClure's mom, Mrs. Hirokane, was well-known for her cooking and her boxed lunches were in demand among busy, working women. When asked what the primary goal was of the dance, Mrs. Sakoda describes it as a way to socialize where men can dance with women. The boxed lunches were also a way to make some extra money on the side. Kupuna Makanani notes that there was no alcohol that was served but the dance was still fun with music and an emcee. Such social events like these is credited by Mrs. Sakoda for teaching her about other cultural practices:</p> <p>There was Filipino music, Japanese music from the Japanese and so on...That's why we all know how to do the bamboo dance, we all know how to do the hula, we all could play the 'ukulele. That's what the communities all were [doing] on weekends. If you wanted to take 'ukulele, you could go there, if you wanted to sew, you could go there.</p> <p>Both Mrs. Sakoda and Mr. Takahashi traded memories of Chinese men who would sell <i>manopua</i> (steamed meat buns), and delicious hot saimin. Eggs and milk were delivered to residents. Other vendors included tofu sellers, including one particular lady from Lihue. Mrs. Sakoda describes the following:</p> <p>She had a stick across her back, and the cans, cracker cans would be balanced. The cans had tofu. One would bring one's bowl to buy the tofu. If you wanted bean curd...there was also <i>nishime</i>.</p> <p>The holidays were a special time for the children in Puhī Camp, marked by food. Mrs. Sakoda describes how each Christmas, each child received a gift from Grove Farm:</p> <p>Every Christmas, we would have a handful of mixed nuts, fruit, an apple, and an orange and some candy. It was so precious for us to get that each Christmas, that little brown bag with just that. If we only could re-create that, it was so valuable to have that apple and orange...we were fortunate. The unions were very good to our camps.</p> <p>7.2.7 Recommendations</p> <p>The group then discussed the certain style of plantation homes in Puhī Camp. Old Japanese homes, for example, usually had a "china hutch" that had screens on the doors where food was kept and flies were prevented from coming in. The legs of the china hutch were placed in containers of water to keep ants from climbing up. Although there are no more Puhī Camp houses that remain standing, Mrs. Sakoda drew attention to the Grove Farm Museum where there</p>	<p>Cultural Impact Assessment for the Kanae's Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kanae's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	<p>are replicas of plantation homes. Preserving the past became an issue for Puhī Camp residents when the 2003 reunion committee pondered on what was valuable to remember. Mrs. Sakoda states:</p> <p>...It never crossed our minds until we did the [Puhī] camp reunion, and then we realized it was really too late because all the homes were destroyed. When they asked to relocate the remains in the cemetery, that's the first we knew that there were going to be development there...Those days, we were never aware or made aware of all the history that was going to be lost.</p> <p>The significance of the camp bulletin board and the role it played in the everyday life of the workers was one of the main things that the Puhī Camp reunion committee wanted to preserve. The board contained communication vital to the daily life of the camp, everything from union meetings, holiday events and seasonal announcements. Because there were no computers in those days, the bulletin board was one centralized area that could effectively communicate all upcoming events affecting the camp's residents. .</p> <p>According to Mrs. Sakoda, the reunion committee had asked Grove Farm to make a replica of the bulletin board as a memorial to Puhī Camp which can then be located somewhere in campus where students and visitors can read about its history. States Mrs. Sakoda:</p> <p>When we were doing this [2003] reunion, we thought it would be a good idea because we remember our laborers had that bulletin board...We want to use that as a re-created one or restore it to use again. It was a bulletin board with an attached roof, with all the announcements pertinent to the camp life...We know KCC has a carpentry department, and it would nice for them to re-create that bulletin board, and restore our oven. But keep it on campus, so it would remind people [of Puhī Camp], and it has to look the same as when we were growing up.</p> <p>As for the Puhī Cemetery, Mrs. Sakoda shares that her little brother could still be buried somewhere in the cemetery. Her first preference is that the graves will remain where they are. The group talked about who will clean the graves in the future. In the end, Mrs. Sakoda, Mr. Takahashi and Kupuna Makanani agreed that if it is possible, a columbarium containing all the graves should be built on site. Then it would be able to maintain itself. The columbarium has to be in the area so that people would know it was Puhī Cemetery.</p> <p>Mrs. Sakoda shares the following question that she would like answered by Project proponents:</p> <p>What is the intent, their intentions regarding Puhī cemetery? The group is wondering why they have not gotten notification about the Project proponents' intentions regarding the cemetery. They would like to be part of the discussion when a decision has been made.</p>	<p>Cultural Impact Assessment for the Kanae's Community College Redesignation of Urban District Project, Niwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue District, Kanae's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>

7.3 Mr. Charlie Pereira

CSH interviewed Mr. Charlie Pereira at the Waipā Foundation site in Hanalei, Kaua'i, on 12/08/2011. Mr. Pereira is from Niumalu Ahupua'a where he spent the majority of his childhood years. He states that it was during those years that he learned to fish. Mr. Pereira is a renowned fisherman and a master fishing net weaver who was weaving his most recent fishing net during parts of the interview with CSH (Figure 42). As a young boy, Mr. Pereira worked in the sugar and pineapple plantations then at 21 years of age, he was drafted to the U.S. Army. During his time in the military, Mr. Pereira spent 11 years in Schofield Barracks then worked in Korea, Germany, and Texas. When he retired from the military, Mr. Pereira returned to Kaua'i and worked at Coco Palms for 24 years. He laments that he missed the fishing. He has two daughters, five grandchildren, and five great-grandchildren. He currently lives in Nāmāhala with his two daughters. On Thursdays, Mr. Pereira volunteers at the Waipā Foundation in Hanalei, making poi.



Figure 42. Mr. Pereira weaving a fishing net (CSH 12/08/2011)

Regarding his connection to the Project area, Mr. Pereira explains that his uncle, Joe Texeria, lived at Pūhi Camp, which was formally located on the Project area. Mr. Pereira tells of spending a lot of time with his uncle and would visit him at the camp often. During a flooding event, water reached their home in Niumalu so his family spent the night at Pūhi with his uncle.

Mr. Pereira recalls that the location of the KCC was formally agricultural land with pineapple, cattle, and later, sugar cane. He explains that it was a hard life living in the plantation camp. He shares his memories of Pūhi:

Where the college is at KCC, that used to be all agriculture and pineapple. They also had cattle grazing there. They only raised cattle and pineapple and then sugar. They got their water from reservoirs. They had ponds. They got them in Pūhi. I remember the plantation having the bathrooms outside. They had water running for the bathroom and the plantation gave them kerosene for their cooking and for hot water for baths. Their life was pretty hard. The Filipinos got together once a year around December I think. We'd go too, but it was a Filipino celebration. When I was growing up, they called the celebration the "Holy Ghost." The Catholic Church had a carnival and now they call it "Carnival" but at that time, it was "Holy Ghost." They made sweet bread, you know, *malasadas*. As the years went by they made some pretty good stuff.

Mr. Pereira worked for the sugar and pineapple plantation for many years especially during the summer time as a young boy. He explained:

It was sugar and pineapple. I was twelve years old when I worked for the plantation. I worked there in the summer time. That's how we made our money for school. We had to buy our clothes. I worked in the plantation for a dollar and a quarter a day. I had a German boss. The only thing I didn't do in the sugar cane was irrigate, you know, water the cane, but I was in the fertilizing and the harvesting of the field. There was very little machinery when we first started but as the years went by, they had more improved machinery for cutting the cane.

When asked about fishing practices in Niumalu, Mr. Pereira shares the following recollections. He also tells of his passion for fishing and making nets and shares with CSH a picture of himself casting his first fishing net at the age of 12 (Figure 43):

There was a lot of fishing in Niumalu. There was a guy, Mr. Coney, who caught the akule with the net. We'd go out to catch the akule in the bay. We'd bring it in and take out the fish and we'd sell it and eat some of it too. We were always playing in the bay. I'd be on the break water picking up 'opihi and spear. I did a little spear fishing with the boys but my interest was the net, once I got into the net. We'd catch mostly small fish—manini [convict tang], squid [he'e], and other good fish [See Appendix B for scientific names].

Fishing is my thing. I make the nets. I sell them to whoever wants to buy them. I learnt from my dad and he learnt from the Hawaiian people. My dad was Portuguese. Grandpa and Uncle were fishermen. Commercial fishermen, and now it's my nephew. He uses the nets with the floaters and the weights and surrounds the akule schools of fish. The nets I make are smaller. Throw net they call it.

They dredged the harbor [Nāwiliwili] to make it deeper. It was too shallow for the big boats. I have a picture of me there with my fishing net. Where I'm standing in the picture, today, there's gas tanks there. This one here, this is the picture [as he

shows CSH his picture). I had a bigger one with my net in my folder, but I don't have it in my wallet. This picture was taken when I was twelve years old with my first net. My mom took this picture.

In addition to net fishing, 'opihi-picking, and spear-fishing, Mr. Pereira also used to fish for crab using crab nets:

I used to go crab fishing with the crab net and catch crabs. It's a round net with the wire ring. We used to catch crabs over there at Niumalu Bay. We used to catch a white crab [possibly kīhuna] and the Samoan crab with the blue pinchers. They call it Samoan crab [See Appendix B for scientific names].

Mr. Pereira also used to paddle from Niumalu on his surfboard to surf in Nāwiliwili Bay. He describes the following, "from Niumalu, I'd go on the surf board I went all the way around the harbor to where that Marriott Hotel is, just to catch a couple of waves. I went all the way back too on the surfboard and the surfboards were made out of plywood."



Figure 43. Mr. Pereira with his first fishing net at the age of 12 (Courtesy of Mr. Pereira)

Mr. Pereira reminisces about growing up in Niumalu and portrays a picture of how rural life was like during that time:

We didn't have our electricity until probably after the war—1945 or 1946. We didn't have electricity before that so my mom used kerosene for cooking. Mom was good at making bread. Home-made bread. I used to sell it to the Hawaiians for ten cents and I couldn't collect ten cents. You could buy a loaf of bread for ten cents and an ice-cream for a nickel. I remember those days. We didn't have electricity. Same thing with my wife in Anahola. They didn't get electricity until about 1957 or 1958. Then I lived in Moloa. Our house is there. My wife got the property through her dad and we didn't get electricity until 1982 over there. Everything was kerosene. My wife was raised with kerosene lamps the same way

I was raised. You know, you had to push it out! If you went too high...what happened? They called it "da chip nail." The glass would get all black.

Mr. Pereira volunteers at Waipā Foundation for the organization's "Poi Day," every Thursday. He shares with CSH how he became involved with the organization and describes the poi-making activities at Waipā:

My wife started coming here before. After the hurricane we had in '92, she came here to make poi and then took it out to the old people. I was in Europe when she did it by herself. My daughters used to help her sometimes. After that, I started coming here and I kinda look forward to it. It's an outing for me to come out here. She was the one coming out here then she passed away. So then my grandson started coming here. He works for the county and he's off Wednesdays and Thursdays so we come here. When I come here, I come in, bring taro, then we get caught up cleaning the taro and start grinding it.

When asked if there are any resources or practices within the Project area that people should be aware of, should there be any development, Mr. Pereira responded that, "I wouldn't know." However, Mr. Pereira is supportive of the Project as he supports education. He states, "The more you have [education], the better it is for you. Mr. Pereira's grandson attended Pūnana Leo, the Hawaiian Language Immersion program at the Kaua'i Community College, for five years.

7.4 Mr. Dennis Chun

CSH met with Mr. Dennis Chun at the KCC on 12/06/2011, where he has been a faculty member in the Department of Hawaiian Studies for 22 years. He, along with several other faculty, was instrumental in establishing the college's Department of Hawaiian Studies. Prior to KCC, Mr. Chun worked in alternative education for Kamehameha Schools. Mr. Chun is an experienced sailor and seaman with almost 40 years of experience in traditional Polynesian navigation. He has been associated with Hōkūle'a, the traditional Hawaiian sailing canoe, since 1974, on which he sailed his first deep-sea voyage to Tahiti, in 1985.

Mr. Chun is connected to the Project area, not only through his experience and familiarity with the KCC campus, but also as a resident of Nāwiliwili Ahupua'a, where he was raised and currently resides. Although his family is originally from O'ahu, Mr. Chun moved to Kaua'i when he was a young boy. He shares with CSH his memories of growing up in Nāwiliwili which portrays the cultural and environmental landscape of the place at the time:

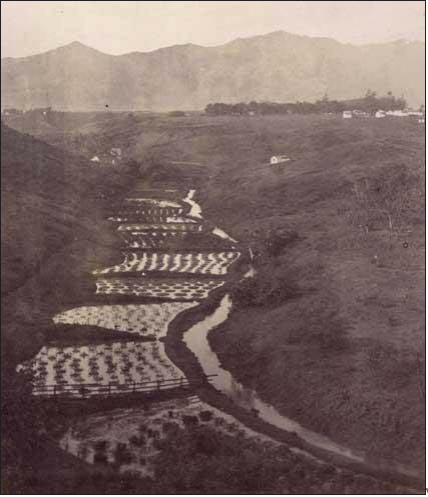
I've been there [Nāwiliwili] since small-kid time. I grew up in that area, in Kupolo, the name of that subdivision just above Nāwiliwili. If you're driving toward Nāwiliwili from Rice Street and the road starts going down the hill, there's a subdivision on the right hand-side. That's it. It overlooks Nāwiliwili Valley between Kaua'i High School, Wailers and the entrance to the Marriott. My grandparents were from O'ahu but we moved here when I was young, eight to ten or something like that, and we were raised here since then.

Mr. Chun describes the valley of Nāwiliwili as a small town when he was growing up where taro was once cultivated and later replaced by pastures for cattle.

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews	Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews
<p>It [Nāwiliwili] was a small town at the time. I remember that valley, it's not on these maps [pointing to maps]. The mill is over here and the valley comes around here and goes toward Kalapaki. Down in that valley where we used to live, there were taro patches. Now it's all pastures and grassland but before, they used to be taro patches. Someone is still planting taro there. There's still some taro patches down here. In Niūmala, there's taro way in the back. I remember when we wanted lū'au [young taro tops, especially as baked in coconut cream and chicken or octopus] leaves or taro, we'd go down there. There's only one family I knew who had taro but they got old and didn't continue it. I think the landowner down there was Kanoa Estates. They sold some parcels but they leased out the land for cattle. The Andrades, from Kalaheo, used to have cattle down there. This was around the sixties to mid-seventies. After that, the place just went to grass.</p> <p>He recalls the sugar cane industry as a child and of a railway that brought sugar from the plantations to a mill in Nāwiliwili. By the seventies, Mr. Chun remembers that trucks replaced the rail system.</p> <p>Sugar was there when I was a child. In fact, they still had the railway run to the mill and down alongside this valley. They used to bring sugar to the mill. That ended around the seventies. I remember that lasted only for ten years or so and then it stopped. Everything went to trucks after that. Trucks transported sugar from the fields to the mill.</p> <p>According to Mr. Chun, the land on which the KCC campus is located, was also cultivated in sugar cane. He recalls that Puhi Camp, a plantation camp, was also located within the Project area. He is doubtful that any archeological, historical, or cultural sites remain within the Project area due to the prior cultivation of sugar cane on the property. He states:</p> <p>This campus used to sit on sugar cane land. I remember as a kid that this side over here [pointing to map], was a plantation camp. The Puhi Camp. It was here and also here. This was all sugar. As far as archaeological, historic, or cultural sites, I don't know if there'd be anything left because this was all sugar cane land.</p> <p>Mr. Chun shares his memories of Puhi Camp and explains that the camp was predominantly Filipino. He describes life in the plantation camp:</p> <p>Puhi Camp was all single-family homes. Old style. It was run by Lihū'e Plantation or it may have been Grove Farm. They provided housing for their plantation workers. I think the workers paid for their housing but it was cheap. That was part of the plantation mentality at the time. Workers were brought in, paid the minimum wage, and housing was provided. At that time, most of the camp was Filipino because that was the latest immigration group that was brought in to work the plantations. They were the majority of this plantation camp. They [Puhi Camp] had their own plantation doctor, medical facilities, and plantation store. So the money stayed within the company. It was like that for awhile. You know where the Macy's is located at the Shopping Center? Back then, Liberty House was there. It started off as a plantation store for American Factor's Corporation which was one of the Big Five Corporations. They had their own</p>	<p>94</p> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niūmala, and Ha'iki Ahupua'a, Lihū'e District, Kaula's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	<p>plantation stores to supply their own plantation workers so that the money would come back into the corporation. Originally, it was called Heckfield and Sons which is a German family but then during the war, World War I, they didn't want to have any affiliation with something German so they changed the name to Liberty House. Something American.</p> <p>Mr. Chun explains how water flowed down from Kilohana mountain and fed the plantations. He describes an abundance of water that collected in reservoirs. However, he suggests that developments, such as roads, have changed how water once flowed. He explains:</p> <p>One of these sites here was a reservoir. The water for that reservoir came from a spring up here...down from Kilohana. There's another reservoir here, and another here and here. So the water fed these reservoirs then the water went out to the sugar cane fields in this area. Now, the water comes down still. This one is dry, right outside of our building [Hawaiian Studies Building]. When it rains, the water runs off and overflows. When there's heavy rain, the water drains and kind of fills up the road that comes out in front of here. This one [reservoir] still runs and goes to this stream that comes down here some place [pointing to map]. They're putting in culverts and all sorts of thing in the road construction in front of the campus so I have no idea where the water all goes. Before, the water used to just go across the road and go down here [pointing to map]. This was all Puhi Camp, plantation camp over here.</p> <p>Mr. Chun explains that freshwater flows down into Nāwiliwili Bay through rivers and streams, such as the Hule'ia River. He has observed changes in the water quality of Nāwiliwili Bay over time and attributes muddy water in the bay not only to heavy rains flooding the Hule'ia River but to activity upstream at the sugar mill, as well as the development of the Marriott Hotel. He explains:</p> <p>When there's heavy rains in the Hule'ia River, the whole bay gets muddy. That river flushes. Another stream comes up from the mill up this way and brings water down to Kalapaki side. When I think back, Nāwiliwili Bay wasn't always muddy from rain because it didn't depend on the rain, at least on the Kalapaki side. It depended on what the mill was doing. It didn't depend on the weather. If it rained hard, yeah, then it would get muddy from the Hule'ia River but on this side [Kalapaki], it was more dependent on the mill. I think what happened is that the sugar mill up here used that stream to wash their cane so the stream would get silty and rubbish from the mill would come down into the bay. The water quality used to be junk.</p> <p>Today, there's another runoff stream that comes up here [pointing to map]. It used to come down on the backside of the Marriott. When the Marriott Hotel was built, they diverted the stream and made underground culverts for the water. Remember those really heavy rains when it rained everyday for a long time? Four years ago? When the dam broke, these culverts they had underground to divert the stream collapsed, and made major damage to the hotel parking area and entrance. It was</p>	<p>95</p> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niūmala, and Ha'iki Ahupua'a, Lihū'e District, Kaula's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews	Cultural Surveys Hawai'i Job Code: NIUMALU 2	Interviews
<p>major. Because of that, whenever it rains, silt comes down through this and here too and joins and makes this real muddy.</p> <p>Mr. Chun believes that fresh water has shaped the ecology of Nāwiliwili Bay in that corals do not grow where there is fresh water. He believes that the sandy bottoms of the bay and the location of the coral reef further out in the bay, is due to the decreased salinity of the water from fresh water.</p> <p>There's a rock here in the middle of the beach where water comes along here and out. That's why it's all sandy in the middle of the bay because coral is not going to grow where there's fresh water. That's why the reef is further out. In between this area, it's all sandy on the bottom because fresh water comes in here and here [pointing to map].</p> <p>Mr. Chun describes Nāwiliwili Bay during his childhood and shares surfing stories in the bay. He also tells of mo'olelo associated with sharks and shark gods in the bay:</p> <p>The jetty wasn't like the harbor where it is today. We didn't have the breakwater outside. When they dredged this harbor, they made this jetty. Here's inside lighthouse and outside lighthouse there. There's a rock over here I heard a story about. I don't know the name but they say that one of the shark gods came to this place. When we were kids, we used to surf over here and I'd think, "I don't know if I wanna go surf over there. Sharks come around." See these lighthouse here? There's a break over here. They say that on this side, there's another cave where the sharks give birth. So everytime we'd surf over here, we'd always look around. One time, we're out here surfing as kids, maybe fourteen, fifteen and we looked around behind us and we saw this fin swimming behind us coming around this way. It's all cliff here but there's a little indentation that's kind of low over here so we paddled to it. We climbed up this little indentation and we looked behind us and there's this ten-foot shark behind us. That's why I hardly go surfing there nowadays. They say, and it still holds today with the kids, some of them say, sharks give birth over here. A number of years ago, we're surfing in this area along the rock where the reef is when these guys shout, "shark coming in", so we're all paddling and jump on the wall along here. The shark came. It was a hammerhead shark. The water was only chest-deep but it gave birth so there was a lot of thrashing and blood in the water. They kind of swam around here and went out. That doesn't happen often but that's one of the stories.</p> <p>Mr. Chun recites previous research that his colleague, Mr. Pila Kikuchi, had conducted a survey in the area which indicates that the place name, "Puhi," even though it means, "to blow," was the name of a cave where a shark god lived. He believes that the cave was located in Ha'ikū, near the Menehune Fishpond. He explains:</p> <p>The place name, "Puhi," means "to blow." A shark god lived in a cave in the area. The name of the cave was Puhi, therefore, the name of the area. But where? See this? This area is in the ahupua'a of Ha'ikū. So it would have to be down in this area, near the fishpond [Menehune].</p>	<p>96</p> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niūmala, and Ha'iki Ahupua'a, Lihū'e District, Kaula's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	<p>Regarding fishing practices in the bay, Mr. Chun recalls seeing a hukilau event at the bay as a child. He shares the story:</p> <p>The first time I saw a hukilau was over there. It was in front of the Old Kaula'i Surf. It was old style Hawai'i kine of a hotel, part of the Big Five hotel chain. It was pretty low key, like CocoPalms, and open. They'd just started building it when I saw the hukilau. They had it here [pointing to map] and I thought it was so cool. They were just pulling in ropes with leaves tied to it and all these fish were coming in. It was pretty cool. I saw that once and I never saw that again. It was one family. I don't even know whose family it was. Maybe it was Auntie Sarah's family. Kailekea was the family. She passed away already but they were one of the old time Hawaiian families that lived in this area. In fact, they still have one house along here and I think the son still lives there. There was also uncle Gable 'Ii. The Lovells were another one. Those are the families I remember.</p> <p>Mr. Chun talks more about fishing practices in the bay and states that not too much fishing occurs in the bay today. Instead, people go to Wailua to fish. However, he maintains that people still gather limu and 'opihī inside the bay and go crabbing along the Hule'ia River. He states:</p> <p>There's not too much fishing in the bay. There is some but not that much. For us, we'd kind of go this side, to Wailua for fishing. We'd also walk down to Ninini Point, by the outside lighthouse. We'd use the roads and go down, park our cars, and go down along the coastline. Before, I don't know if there still is, but there used to be a dirt road that goes there. You could also go by the airport and go along the coastline to the outside lighthouse. As far as limu and 'opihī, we could get them right inside the bay. It was not a problem. People would go crabbing right along here, the Hule'ia. We used to do that. People still do that. 'Opihī, you can still get all along there in the bay, along the seawall. But, it's so easy, people pick them small because it's convenient. If people just want a handful for eating tonight, they'd go there.</p> <p>Mr. Chun also mentions Menehune Fishpond as the largest fishpond in Kaula'i and the main one in the vicinity of the Project area:</p> <p>Menehune Fishpond is probably the largest. There's one in Hanalei that I know of, right behind the Wilcox family house, Hanalei Bay. But, Menehune Fishpond is the main one in this area.</p> <p>When asked his knowledge of burials and other features of cultural significance within the Project area, Mr. Chun indicates that he knew of a cemetery located near the campus. He identifies the cemetery on the map, which also appears on the map. He reiterates that the sugarcane plantations would have displaced features of cultural significance within the Project area and also points out that the population centers would have been concentrated along the coast or along the Hule'ia River. Therefore, the likelihood of finding heiau and other cultural features would be higher along the coast than within the Project area. He knows no heiau in the ahupua'a of the Project area:</p>	<p>97</p> <p>Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Nāwiliwili, Niūmala, and Ha'iki Ahupua'a, Lihū'e District, Kaula's Island. TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>

<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Interviews</div> <div>There's a cemetery up here. It's on the map. It's a separate parcel. That's the only burials that I know of, at least, in recent times but I don't know as far as pre-history. I haven't heard of anything there. I think because this was all sugar cane fields, everything got buried. I mean, it's in place, very close by the time we came about. If there's anything remaining, it's probably destroyed. I'm sure that were stories. If we go back far enough, we'll find written accounts of things but to find that now is very difficult. I know what people would look for in digging around in this area. They'd be looking for artifacts like old bottles and things like that. I see that happening more than for Hawaiian artifacts. In those days, I don't think the population centers would have been up here. If anything, it would be along this area along the coast or along Huleia. I don't know of any heiau around here. Heiau I know that would've been around the coastline. Not any that I know of in any of these ahupua'a.</div> <div>7.5 Mr. Robert White</div> <div>CSH met with Mr. Robert (Bob) White on 1/27/2011 at his residence in Niumalu. Mr. White and his family moved to Kaua'i in 1970 and spent most of the summers surfing and camping at the beach in Kalapaki since he was 10 years old. He has lived in Wailua and 'Ōma'o, but moved to his current residence approximately fifteen years ago. His home is located directly adjacent to the Huleia River and minutes away from the Menchune Fishpond. Mr. White, therefore, lives within the estuary area near the Project area. He and his wife have two children who have grown up in Niumalu and attended Kaua'i High School. They have a strong sense of place and love the island and its people. Mr. White expressed the following sentiments about Kaua'i, "We have a really strong sense of feeling for this island. So, we're very open to this Project because we love Kaua'i. We love the area, and we love the people." He shared with CSH his manager's regard for the proposed Project.</div> <div>Mr. White acknowledged the importance of the proposed Project to the well-being of the island of Kaua'i and supports the plans to develop the school. He states, "I think it makes perfect sense to develop the school. It's in a great location." Being familiar with the area, Mr. White points out that should the college expand, mitigation plans to ease potential traffic problems will be attributed to the location of the Chevron Station near the main intersection on Puhi Street, directly in front of the campus, should be addressed. He explains that motor vehicles turning into the Chevron station is currently causing traffic congestion and forecasts the problem to exacerbate if the campus expands. He shares his views on the traffic problem:</div> <div>Numerous times, I have seen dangerous driving behavior and unnecessary traffic congestion at the intersection of Puhi Road and Kaunali Highway. The issue is that cars are turning left from Puhi Road into the Chevron station but there are cars generally stopped at the traffic light along Puhi Road. This creates an unnecessary traffic jam as the traffic along Puhi Road blocks the cars attempting to turn left into the station. In terms of easing traffic, it might make sense for Kaua'i's Public Works to mark the road "Do not block" so people can make their left turns into the Chevron station without holding up traffic. It would also make ingress and egress into the Chevron station safer for motorists.</div> <div>Cultural Impact Assessment for the Kaua'i Community College Relocation of the former District Project, Niihuli, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island. v98</div> <div>TMK (4)-3-4-007-001, (4)-3-4-007-002, (4)-3-4-007-003, and (4)-3-4-007-006 v</div>	<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2v</div> <div>Interviews</div> <div>Mr. White recommends that, "as they expand the school, it would make sense to have that intersection flow better. Even though the State is improving the highway there, there is still going to be a traffic issue at this corner unless the County can install the necessary signage or asphalt marking."</div> <div>Mr. White also points out that should the college expand, he was concerned about the potential effects of any herbicide usage for weed control on the surrounding areas. Mr. White acknowledged that the estuary area is a watershed which includes the Huleia National Wildlife Refuge near an own stream from the Project area. He states:</div> <div>One thing that is a valuable point to mention is the County or the State's use of herbicide or weed control. Just to know how many of those chemicals are used in our watershed and how much that is affecting our aquatic resources and resources. In the way, they should be sensitive about the fact that this is a watershed and that it is used in its own to the National Wildlife Refuge. This is actually a wildlife refuge, just around the corner. This whole area, where the Menchune Fishpond is, is in a wildlife refuge now. So, all the more reason to consider careful usage of spray or pesticides."</div> <div>He is concerned about potential contamination of the watershed, particularly that of the Huleia National Wildlife Refuge and the Project area, from any use of herbicide or insecticide. He comments on the careful usage of these substances by the State of Hawai'i and/or the County of Kaua'i.</div> <div>Cultural Impact Assessment for the Kaua'i Community College Relocation of the former District Project, Niihuli, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island. v99</div> <div>TMK (4)-3-4-007-001, (4)-3-4-007-002, (4)-3-4-007-003, and (4)-3-4-007-006 v</div>
---	---

<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2v</div> <div>Cultural landscape</div> <div><h2>Section 8 Cultural Landscape</h2><p>Discussions of specific aspects of traditional Hawaiian culture as they may relate to the Project area are presented below. This section integrates information from Sections 3–7 and serves to examine cultural resources and practices that exist within or in proximity to the Project area in the broader context of the encompassing landscape of Niihuli, Niumalu, and Ha'iki. Excerpts from consultations are incorporated throughout this section where applicable.</p><h3>8.1 Hawaiian Habitation and Agriculture</h3><p>As discussed in Section 3.7, the ahupua'a of Niihuli, Niumalu, and Ha'iki were permanently inhabited and intensively used pre-Contact and early historic times as far back as possibly A.D. 1100 (Walker et al. 1991). Historically, settlement of the estuary area was pre-eminently along the coastal areas as evidenced by the concentration of permanent house sites, temporary shelters, heiau, fishponds, and intensive cultivation in these areas. In 1853, Coulter recorded the population around Niihuli Bay to be approximately 700 and indicated on his map that settlement was pre-eminently along the coast, most likely reflecting a high dependence on marine resources for subsistence. A photograph in 1886 of Niihuli, shown in Figure 44, suggests that some 40 years later, the estuary area was still highly engaged in taro cultivation. However, observations by Handy (1940) of Niihuli in 1935 suggest that major changes to the landscape of the study area occurred between 1886 and 1935 in which lo'i cultivation was significantly decreased and replaced by pastureland and sugarcane plantation-related activities.</p><p>This drastic change in the landscape was likely attributed to the prevalence of the sugar-cane industry, particularly in the early twentieth century. Consultations with Mr. Chun, who grew up in Niihuli in the 1960s, describes the valley of Niihuli during his childhood as a small town where taro was once cultivated and later replaced by pastures for cattle. He relates that even during the 1960s, taro was still being cultivated in the area, though probably to a lesser extent than in 1935. Today, taro patches are almost non-existent in the estuary area with only a few families who still cultivate taro.</p><p>Regarding the Project area, Mr. Chun reiterates that, "[i]n those days, I don't think the population centers would have been up here [around the Project area]. If anything, they would have been along the area along the coast or along Huleia." Thus, it is very likely that the Project area is not supported by much human habitation until the plantation era with the establishment of Puhi Camp in the early twentieth century. Consultations with residents of the estuary area of the former Puhi Camp indicate that the landscape of the Project area was formerly used for sugarcane cultivation though Mr. Pereira also makes references to the farming of pineapple and cattle.</p><p>An archaeological study by Palamav in 1973, and around the Project area, found 'auwai and a possible lo'i (Figure 27). Follow-up interviews with plantation workers at the time indicate that none had any knowledge of taro cultivation in the Project area (Palamav 1973). Consultations for the proposed Project also indicate no knowledge of taro cultivation in the area. However, literature research</p></div> <div>Cultural Impact Assessment for the Kaua'i Community College Relocation of the former District Project, Niihuli, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island. v100</div> <div>TMK (4)-3-4-007-001, (4)-3-4-007-002, (4)-3-4-007-003, and (4)-3-4-007-006 v</div>	<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2v</div> <div>Cultural landscape</div> <div>an consultations indicate that Puhi Camp families were given an by Grove Farm Plantation to plant vegetables in crops for subsistence. Therefore, it is possible that taro may have been cultivated during this time.</div> <div></div> <div>Figure 44. Taro was grown along the Niihuli Stream to half a mile up above the mill. (Bishop Museum 1886)</div> <div>Cultural Impact Assessment for the Kaua'i Community College Relocation of the former District Project, Niihuli, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island. v101</div> <div>TMK (4)-3-4-007-001, (4)-3-4-007-002, (4)-3-4-007-003, and (4)-3-4-007-006 v</div>
--	---

8.2 Wahi Pana and Mo'olelo

Wahi pana and mo'olelo provide a unique insight into the cultural and natural landscape of the past. Wahi pana and mo'olelo associated with the study area are plentiful suggesting early settlement of the area by a viable Native Hawaiian population. In the case of the Project area, the wahi pana of "Puhī," the name of the area in which the Project area is located, is associated with a shark god. Mr. Chun explains:

The place name, "Puhī," means "to blow." A shark god lived in a cave in the area. The name of the cave was Puhī, therefore, the name of the area. But where? See this? [Pointing to map] This area is in the ahupua'a of Ha'ikū. So it would have to be down in this area, near the fishpond [Menehune].

Thus, Puhī was the cave of a shark god, which is thought to be possibly located within the ahupua'a of Ha'ikū, near the Menehune Fishpond. Though Puhī is located several miles inland from the coast, the association with sharks reflects a culture deeply connected with the ocean and emphasizes the mauka-makai orientation of the land that is central to Native Hawaiian culture. Mr. Chun also shares other mo'olelo (see Section 7.4) associated with sharks and shark gods residing in and around Nāwiliwili Bay.

8.3 Burials

Archaeological studies discussed in Section 5 and consultations presented in Section 6 and 7 indicate that two graveyards, the Puhī Camp Cemetery and Cement Pond, though outside of the Project area, are located within 200 meters of the proposed Project. Thus, known burials in the vicinity of the Project area are historically, relatively recent. Kupuna Makanani recalls how it was possible to bury family members around one's residence when she was growing up; therefore, she expressed that discovering inadvertent burials is possible. Acknowledging the agricultural history of the Project area, Mr. Chun explains that "the sugar cane plantations would have displaced features of cultural significance within the Project area."

8.4 Heiau

Literature research indicates that no known heiau currently exists within the study area though Kuhiau Heiau, reported to be the largest and most famed heiau on Kaua'i, once existed along the coast of Nāwiliwili Ahupua'a (Damon 1931). This heiau is described to have been about four acres and associated with Paukini Rock, its sister heiau that marks the boundary between Nāwiliwili and Kalapaki Ahupua'a. Consultations with participants for the proposed Project revealed that none had any knowledge of heiau in the study area probably because these structures have been physically obliterated.

However, consultations reveal that residents of the study area may still have some knowledge of mo'olelo associated with heiau that existed in the Project area. Mr. Chun describes a rock near the lighthouses along Kalapaki with stories associated with a shark god. The rock that he describes may possibly be Paukini rock, the sister heiau of Kuhiau Heiau described above. Mr. Chun shares his mana'o:

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'ikū Ahupua'a, Lihue District, Kaua'i Island.

102

TMC [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

Here's inside lighthouse and outside lighthouse there [pointing to map]. There's a rock over here I heard a story about. I don't know the name but they say that one of the shark gods came to this place.

8.5 Marine and Freshwater Resources

Early accounts describe the study area as a rich land with abundant fresh water and marine resources (Section 4.2). In Section 3.7, Handy describes Niimalu Ahupua'a in the mid-twentieth century as having among the best fishing grounds on the island of Kaua'i. Inhabitants of the study area fished the reefs, farmed fishponds, and utilized the many freshwater streams and rivers flowing seaward from Kilohana not only for lo'i cultivation, but for fishing. During the sugar cane plantation era, which began in the 1830s in Kaua'i, fresh water was utilized to support the largest industry that drove the economy of the Project area at the time. Within the Project area, Grove Farm Plantation diverted freshwater streams to build reservoirs and ditches that supported the life and daily activities of the plantation. The literature and consultations with residents of the study area suggest that since the mid-nineteenth century, demands of population increase and its associated development have negatively affected the health and quality of these water systems.

8.5.1 Streams

Section 3.6.1 discusses streams within the study area in more detail and affirms that modern development has modified the flow of these water systems. Consultations with residents of the study area reveal the types of changes they have observed over their lifetime. Mr. Chun explains that fresh water flows down into Nāwiliwili Bay through rivers and streams, such as the Hule'ia River. He has observed changes in the water quality of Nāwiliwili Bay over time and attributes muddy water in the bay not only to heavy rains flooding the Hule'ia River but to activity upstream at the sugar mill, as well as the development of the Marriott Hotel.

Mr. Chun's observations highlight the mauka-makai connection of the land in that the impacts of land-based activities are not only localized but may have more far-reaching impacts on distant locations and ecosystems. Streams and rivers act as media that connect points along the land with the ocean. With this knowledge in mind, Mr. White is concerned that should the college expand, herbicide usage for weed control from the college may affect surrounding areas. Mr. White acknowledges that the study area is a watershed which includes the Hule'ia National Wildlife Refuge located near to and downstream from the Project area. He is concerned about potential contamination of the watershed, particularly of the Hule'ia National Wildlife Refuge with herbicides and methods of weed control used by KCC.

8.5.2 Fishing

As discussed earlier, the study area was known for being one of the best fishing places in Kaua'i. Handy (1940:67) relates that, "Niimalu is a tiny ahupua'a, a mere wedge between Nāwiliwili and Haiku, but it was, and is, one of the most important fishing localities on Kauai."

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'ikū Ahupua'a, Lihue District, Kaua'i Island.

103

TMC [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

Thus, by the mid-twentieth century, fishing within the study area is described to have been widely practiced with an abundance of fish. However, participants consulted for this Project believe that the abundance of marine resources has declined over time and though people continue to gather limu, pick 'opihī in the bay, and crab, many prefer to fish in Wailua, north of the study area. Mr. White no longer eats fish from Niimalu Bay due to pollution.

Mr. Chun, Mr. White, and Mr. Pereira, long-time residents of Niimalu and Nāwiliwili who have spent many years fishing in the area, share their knowledge and experience of fishing. They indicate that fishing mainly occurred along the coastal areas of the study area, particularly at Nāwiliwili Bay. They recall fishing for akule with large nets, picking 'opihī on the break water along the bay, spear-fishing, netting, and crabbing for a white crab (possibly kīhōmū) and Samoan crabs along the Hule'ia River and in Niimalu Bay. Mr. Pereira also recalls catching he'e and fish like manini. Mr. Chun remembers a hukilau event at Nāwiliwili Bay during his childhood but has never seen another in his lifetime.

Mr. Chun believes that fresh water has shaped the ecology of Nāwiliwili Bay in that corals do not grow where there is fresh water. He believes that the sandy bottoms of the bay and the location of the coral reef further out in the bay, is due to the decreased salinity of the water from fresh water. He states:

There's a rock here in the middle of the beach where water comes along here and out. That's why it's all sandy in the middle of the bay because coral is not going to grow where there's fresh water. That's why the reef is further out. In between this area, it's all sandy on the bottom because fresh water comes in here and here [pointing to map].

Within the Project area, Puhī Camp residents fished for 'o'opu and crayfish, and caught frogs in nearby ditches and reservoirs to supplement their diet (See Appendix B for scientific names). It is not clear whether these reservoirs are still utilized by residents of the study area for fishing.

8.5.3 Loko I'a

According to LCA records, fishponds were abundant in the study area with six in Nāwiliwili, seven in Niimalu, and many ki'owai throughout Ha'ikū. Menehune Fishpond, the largest of all fishponds in Kaua'i still exists, as shown in Figure 45. Menehune Fishpond has experienced many changes as documented in Section 3.6.2.1. Comparisons of recent imagery of the fishpond in Figure 45 to those from a century ago (Figures 8 and 9), show that mangroves have encroached upon the fishpond, decreasing its size. Today, the fishpond is a historic property (SIHP No. 50-30-11-501) that is a major tourist attraction in Kaua'i.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'ikū Ahupua'a, Lihue District, Kaua'i Island.

104

TMC [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006



Figure 45. Menehune ('Aleko) Fishpond today (Boynton n.d.)

8.5.4 He'enalu

Consultations for this Project indicate that surfing was and continues to be a Native Hawaiian cultural practice within the coastal areas of the study area. Mr. Chun, Mr. White, and Mr. Pereira all share surfing stories from the bay. Mr. Pereira recalls using surfboards made of plywood. Today, surfing is a significant recreational activity, not only for residents of the study area but for tourism.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niimalu, and Ha'ikū Ahupua'a, Lihue District, Kaua'i Island.

105

TMC [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Summary and Recommendations</div> <div><div>Section 9 Summary and Recommendations</div><div><p>CSH undertook this CIA at the request of Wilson Okamoto Corporation. The cultural survey broadly included the entire study area, and more specifically the approximately 199-acre Project area.</p><h3>9.1 Results of Background Research</h3><p>Background research for the proposed Project indicates that the Project area, which lies approximately two miles southwest of Lihū'e Town, is part of a traditional region encompassing the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū. Early accounts describe the region as an open, grass-covered land that was dotted with trees and streams that flowed down from lush mountains on the way to the sea, with soils that bore a variety of crops like sugar-cane, taro, sweet-potatoes, beans and groves of kukui, (candlenut), hau (beach hibiscus), koa, hala (pandanus), and wiliwili. The abundance of water and water systems, presence of famed fishponds on the coast, along with the concentration of permanent house sites, temporary shelters, and heiau suggests early settlement along coastal areas, with a radiocarbon date of A.D. 1170 to 1400 near the mouth of Hanamā'ulu Stream, north of Nāwiliwili.</p><p>In the mid-19th century, the Project area became associated with the establishment of the commercial sugar cane agriculture which required foreign indentured labor imported from Japan, China, and the Philippines. The Project area was part of the Grove Farm Plantation before the farm stopped its sugar business in 1974. Within the Project area lies remnants of the Old Pūhi Camp, which housed plantation workers of Grove Farm. The camp was built around 1920 along the present Kaumuali'i Highway and contained a movie hall, three stores, a Chinese laundry, a slaughterhouse, and an area for social events. Most of the Pūhi Camp housing was removed in the 1970s prior to the construction of KCC and the last homes of the camp were dismantled in the 1980s.</p><p>The Project area is also linked to many mo'olelo (stories, oral histories) and wahi pana (storied places) that suggests early settlement of the area by a viable Native Hawaiian population. These include mo'olelo about Kuhiau Heiau, the largest heiau in Kaua'i, Ninini and Ahukini Heiau in Kalapaki, the Menehune, wiliwili trees, and the many well-known chiefs, heros, and gods such as the chief Papalinaoa, the three sons of La'a Maikahiki, the hero Lohiau; the contest of Kemamo the sling-thrower and Kapūnohu, the ravishing of Pele by Kamapua'a, demi-god Pōhaku-o-Kaua'i (Hoary Head), as well as a Kaua'i chief sent by Ka'umuali'i to placate Kamehameha I on O'ahu. Mo'olelo with associated bodies of water within the Project area are also plentiful which include Alekoko, the largest fishpond in Kaua'i (also known as 'Alekoko, Alakoko, Pēpē'awa), Hūlēia (Hūlū'ia) Stream, Kilohana, and Nāwiliwili Bay. Many wahi pana of settled areas, such as Pūhi, Lihū'e, and various pu'u (hills, ridges) are also associated with the Project area.</p><p>Other important findings from background research are presented and emphasized in more detail:</p></div></div> <div><div>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.</div><div>106</div><div>TMK [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div>	<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Summary and Recommendations</div> <div><div><div><div><div>1.</div><div>The traditional moku or districts of Kaua'i were replaced in the mid-to-late 19th century. Lihū'e became the modern district that includes the ahupua'a of the proposed Project, previously under the Puna District. "Lihū'e," which literally translates as "cold chill," was not consistently used until the establishment of commercial sugar cane agriculture in the mid-19th century (Creed et al. 1999). Between the 1830s and the Māhele, the names Nāwiliwili and Lihū'e were used somewhat interchangeably to refer to a settlement along Nāwiliwili Bay.</div></div><div><div>2.</div><div>No known heiau currently exists within the study area although Kuhiau Heiau, reported to be the largest and most famed heiau on Kaua'i, existed along the coast of Nāwiliwili Ahupua'a (Damon 1931). Listed by Bennett (1931) as Site No. 99, this heiau is reported to have been about four acres and associated with Paukini Rock, its sister heiau that marks the boundary between Nāwiliwili and Kalapaki Ahupua'a.</div></div><div><div>3.</div><div>After the Māhele, Victoria Kamāmalu was awarded over two thousand acres of Nāwiliwili Ahupua'a, along with much of Niumalu and Ha'ikū. Land Commission Awards (LCAs) describe many lo'i (irrigated taro, especially for taro) and kula (plain, field, open country, pasture) lands within the study area particularly as being in the same 'āpana (piece, slice, portion), a pattern common to the Puna District of Kaua'i, but uncommon elsewhere in Hawai'i. Maka'āinana (commoner) in the Puna District were referring to lands in valley bottoms as kula.</div></div><div><div>4.</div><div>Many loko i'a (fishponds) were prevalent in the study area. LCAs document six in Nāwiliwili, seven in Niumalu, and claimants describe loko (pond) or kiowai (water hole) in Ha'ikū. 'Alekoko Fishpond, also known as Menehune Fishpond, or Niumalu Fishpond, is the largest fishpond on Kaua'i and still exists in the study area. It is also known as SHIP No. 50-30-11-501.</div></div><div><div>5.</div><div>The Project area was initially part of the Grove Farm Plantation—so named after an old stand of kukui trees. The plantation was established in 1850 and taken over by Mr. George Wilcox in 1863. He bought the farm in 1870 for \$12,000 and it flourished under his leadership. In the mid-1960s, Grove Farm donated 200 acres of former sugar land to the State of Hawai'i for KCC. Grove Farm ended its sugar business in 1974 (Wilcox 1998:76).</div></div><div><div>6.</div><div>The Old Pūhi Camp, which housed plantation workers of Grove Farm, extended into the Project area and consisted of about 600 homes for about 1,200 workers and their families. At the forefront of housing reforms, Pūhi Camp dwellings became the standard for the plantation industry in the 1920s (Riznik 1999).</div></div><div><div>7.</div><div>An archaeological reconnaissance by Palama in 1973 identified the Pūhi Camp Cemetery, State Inventory of Historic Places (SHIP) No. 50-30-11-B006, old plantation camp remains associated with Pūhi Camp, Pūhi Camp, and an area containing possible lo'i. A field inspection of the Project area in August, 2010, found ten historic surface features, including two previously identified historic features (CSH 9, CSH 10) by Palama (1973).</div></div></div></div></div> <div><div>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.</div><div>107</div><div>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div>
--	---

<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Summary and Recommendations</div> <div><div><div><div><div>An "old 'auwai" that conforms to a portion of Grove Farm's "Mauka Ditch", corresponds to CSH 9 and the Pūhi Cemetery corresponds to CSH 10. However, the Pūhi cemetery is outside of but surrounded by the Project area. The remaining features found appear to be related to Grove Farm and date to the plantation era. The historic surface features consist of five irrigation ditches (CSH 1, CSH 2, CSH 4, CSH 6, CSH 9), one of which (CSH 1) is abandoned; three reservoirs (CSH 3, CSH 5, CSH 7) of which CSH 3 is abandoned; and an abandoned wooden flume (CSH 8)</div></div><div><div>9.2 Results of Community Consultation</div><div><p>CSH attempted to contact 32 community members, government agencies, community organizations, and individuals, including residents, "recognized" descendants, and cultural practitioners. Community consultations began in September, 2011 until February, 2012. Of the 22 people that responded, eight kūpuna and/or kama'āina participated in formal interviews for more in-depth contributions to the CIA and two people provided statements via e-mail and telephone.</p><p>This community consultation indicates that additional significant cultural resources, namely streams and watersheds as well as the Hūlē'ia National Wildlife Refuge near and downstream from the Project area, have not been adequately documented and assessed for their ecological relationship with natural and cultural resources within and near the Project area. The study area and environs, in particular the lo'i, kula or lands in valley bottoms in this particular context, rivers, streams and Nāwiliwili Bay, has a long history of use by Kānaka Maoli (Native Hawaiians) and other kama'āina groups for a variety of past and present cultural activities and gathering practices. Participants consulted reveal their knowledge of these practices and resources.</p><p>At least two community contacts, Mr. Pereira, and Mr. Chun, discuss fishing, gathering 'opihī (limpets) and limu (seaweed, algae) in Nāwiliwili Bay, and crabbing along Hūlē'ia River which still continue today among residents of the area. Both participants discuss spear and throw-net fishing which for Mr. Pereira consisted in part of catching akule (big-eye scad), manini (convict tang), and squid using his own throw net which he creates and sells to others. Several participants (Mr. Robert White, Mr. Pereira and Mr. Chun) narrate he'enalu (surfing) practices and associated mo'olelo in the past and in the present. At least two participants note the abundance of freshwater resources and the watershed near the Project area and highlight the ecological relationship of natural and cultural resources within or near the Project area.</p><p>Participants also relate mo'olelo about the practice of hukilau (fish with the seine), the origin of the name "Pūhi" which is connected to the cave of a shark god in Ha'ikū, as well as the presence of spirits in the Project area in the form of fireballs. At least five participants relate the gathering of plants such as bamboo shoots, papaya, mangoes, passionfruit, guava and pepaiao (cloud ear fungus) in the Project area along with the catching of crayfish, 'o'opu, and frogs in the irrigation ditches and reservoirs while at least two community contacts related about the hunting of pheasants and wild boars. Participants also discuss burials and note the existence of a historic cemetery surrounded by the Project area, and another cemetery nearby. Many participants stress</p></div></div></div></div><div><div>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.</div><div>108</div><div>TMK [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div></div>	<div>Cultural Surveys Hawai'i Job Code: NIUMALU 2</div> <div>Summary and Recommendations</div> <div><div><div><div><div>the importance of respecting and sharing resources with one another, the ecological relationship that shapes natural and cultural resources, and the need to keep the ecological balance by keeping contaminants away from the watershed upon which the Project area is built to ensure a healthy environment for Nāwiliwili Bay and the wildlife refuge area downstream of the Project area.</div></div><div><div>Other important findings from community consultations are presented and emphasized in more detail:</div><div><div><div>1.</div><div>In the 1960s and 70s, the ahupua'a of Nāwiliwili, Niumalu, and Ha'ikū, consisted of small rural towns with taro cultivated relatively close to the ocean. Mr. Chun describes Nāwiliwili Valley as having had many taro fields which later turned into cattle pastures and grassland. Today, he tells of only one family in Nāwiliwili and a few in the back of Niumalu who continue the practice. Mr. Pereira speaks of growing up in Niumalu with no electricity and using kerosene for cooking.</div></div><div><div>2.</div><div>The Project area is agricultural land formally owned by Grove Farm where pineapple, cattle, and later sugar cane, were farmed. Plantations provided a livelihood for many residents of Kaua'i like Mr. Pereira and Kupuna Makanani. Mr. Pereira worked in the sugar and pineapple plantations during the summertime as a young boy, which paid for his schooling. Mr. Chun and Mr. Pereira recall the predominance of the sugar industry which included the establishment of a sugar mill in Nāwiliwili. A railway system brought cane from the fields to the mill which later became replaced by trucks.</div></div><div><div>3.</div><div>The Project area includes the former Old Pūhi Camp, a plantation camp for the workers of Grove Farm Plantation and their families. Since Pūhi Camp was a significant part of the Project area's history, Pūhi Camp is described in more detail:<ul style="list-style-type: none">Participants remember Pūhi as a self-sufficient plantation camp with its own stores, doctors, and medical facilities. Families shopped for groceries in plantation stores, and bought items using credit, to be paid for on payday. Plantation workers lived at Pūhi for cheap rent, received kerosene for cooking, and hot water for bathing. Land was also given to anyone who wished to grow vegetables and crops were shared with each other.While various accounts portray plantation life as harsh and unfulfilling, Mr. Takahashi relates that the Wilcox family treated their workers very well and life was enjoyable at Pūhi. Workers were provided the opportunity to own their own homes. Those raised on the camp fondly reminisce of a simple life and special place—a close-knit community where everybody recognized and took care of each other despite their differences. "For me, growing up in Pūhi was great!", says Kupuna Makanani.The culture of Pūhi Camp was diverse. According to Kupuna Makanani, the homes in Pūhi were arranged by race though "everybody lived as one people." Participants raised in the camp, appreciate their multi-cultural upbringing through the sharing of cultural practices, folk dances, foodways, and folklore.Participants recalled other cultural activities at Pūhi Camp such as the "Social Box" which was a dance held by the Filipinos once a month. Mr. Pereira also describes an annual Filipino carnival called the "Holy Ghost" that occurred every</div></div></div></div><div><div>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lihū'e District, Kaua'i Island.</div><div>109</div><div>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</div></div></div></div></div>
--	--

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Summary and Recommendations	Cultural Surveys Hawai'i Job Code: NIUMALU 2	Summary and Recommendations
<p>December. On Tuesdays, fresh bread and <i>malasadas</i> (Portuguese pastry) were baked and children collected firewood to keep the fire alive for baking.</p> <ul style="list-style-type: none">• The transition to unionization of workers in 1946 brought many changes to Puhi Camp. Kupuna Makanani explains that before the union, though wages were low, housing and water were free and Grove Farm provided equipment and toys for the children. Several strikes ensued but the strikes were peaceful, unlike the massacre at Hanalei in 1924. During the strikes, a soup kitchen run by the union, provided food for workers on strike and their families. <p>4. Two graveyards, known to Puhi residents as "Old Puhi Cemetery" (SIHP No. 50-30-11-B0006) and "Cement Pond," are located outside of but within 200 meters of the Project area. The cemetery is divided into two sections for Japanese and Filipino families despite the multi-cultural makeup of Puhi. According to Mr. Takahashi, other ethnicities chose to be buried elsewhere and many graves were removed by their families. "Cement Pond," exists approximately 200 meters north of the Project area and consists of three burials. Participants speculate that these burials are not of Puhi Camp residents but possibly of affluent Japanese. Kupuna Makanani recalls how it was possible to bury family members around one's residence when she was growing up.</p> <p>5. Filipino migrants came to Hawai'i in the early 1900s as contract laborers or "<i>sakadas</i>," searching for a better place to live, relates Mr. Takahashi and Kupuna Makanani. Some graves at Old Puhi Cemetery are of Filipino veterans who have no known family with only crosses in the ground for their burial, according to Mr. Takahashi. He wishes that relatives of these veterans could find them, allowing younger generations to continue their ties to their culture and family tree.</p> <p>6. Mr. Chun reiterates that the sugarcane plantations would have displaced features of cultural significance within the Project area and also points out that the population centers would have been concentrated along the coast or along the Hule'i'a River. Therefore, the likelihood of finding heiau and other cultural features would be higher along the coast than within the Project area. No participants had knowledge of any heiau within the study area. However, one participant noted a mo'olelo about fireballs, which reflect the presence of spirits in Native Hawaiian culture, near the Project area.</p> <p>7. Participants describe an abundance of water in the Project area. From Kilohana, water collects in reservoirs that once fed the plantations. Reservoirs and ditches were utilized by Puhi residents as food sources, and for recreational swimming. Mr. Takahashi asserts that a gate that controlled water flow to these water sources and regulated flow to prevent floods, still exists. Water subsequently flowed down through streams and rivers into Nāwiliwili Bay. The Hule'i'a National Wildlife Refuge, which includes the Menehune Fishpond, is part of a watershed downstream of the Project area.</p> <p>8. Mr. Chun and Mr. White indicate that development has changed water flow patterns, as well as water quality. Mr. Chun attributes muddy water in Nāwiliwili Bay not only to heavy rains flooding the Hule'i'a River but to development and land-based activities upstream, such as the previous sugar mill and the existing Marriott Hotel. Mr. Chun believes that fresh water has shaped the ecology of Nāwiliwili Bay in that corals do not grow in the presence of fresh water. He speculates that the sandy bottoms of the bay and the location of the coral reef further out in the bay, is due to the decreased salinity from</p>	<p>the influx of fresh water. Residents like Mr. White do not eat fish from the coast because of degraded water quality.</p> <p>9. The traditional practice of lei (necklace of flowers)-making was and continues to be practiced by residents of the study area</p> <h3>9.3 Impacts and Recommendations</h3> <p>The following cultural impacts and recommendations are based on a synthesis of all information gathered during preparation of the CIA. To help mitigate the potential adverse impacts of the proposed Project on cultural beliefs, practices, and resources, recommendations should be faithfully considered and the development of the appropriate measures to address each concern should be implemented.</p> <ol style="list-style-type: none">In light of statements made by several participants in this study over the potential impact of future development at KCC on the historical remnants of the Old Puhi Camp, especially the Puhi Cemetery, it is recommended that:<ol style="list-style-type: none">Large trees near the graves should be removed to prevent further destruction of headstones from falling branches. Although the cemetery is outside of the Project area, it is completely surrounded by the Project area.Participants recommend that KCC should assume the responsibility of protecting and maintaining the cemetery, including any financial obligations that incur. Regarding a burial treatment and preservation plan, Mrs. Sakoda prefers that burials be preserved in place. If burials must be removed, Mrs. Sakoda, Mr. Takahashi and Kupuna Makanani agree that a columbarium containing all the burials be built on site. The columbarium would protect the burials of The Puhi Cemetery and solve the problem of graveyard maintenance.Participants recommend that all families with ties to the cemetery and Project area should be consulted and included in any discussions regarding the The Puhi Cemetery.Kupuna Makanani remembers from her childhood how it was possible to bury family members around one's residence, hinting to the possibility of discovering inadvertent burials in future development. Should cultural or burial sites be identified during future ground disturbance in the Project area, all work should immediately cease and the appropriate agencies notified pursuant to applicable law. Kūpuna from the study area and former residents of Puhi Camp should also be consulted to ensure proper cultural protocols are addressed.As there continues to be concern from former Puhi residents about the loss of the history and memories of Puhi Camp as the campus expands, it is recommended that a replica of a bulletin board used in the everyday life of Puhi Camp and containing the history of the camp be built and installed on KCC campus. The bulletin board continues to be a traditional cultural property in the memories of the study participants, who cherish its significance.		
<p>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nīwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.</p> <p>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	110	<p>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nīwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.</p> <p>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	111

Cultural Surveys Hawai'i Job Code: NIUMALU 2	Summary and Recommendations	Cultural Surveys Hawai'i Job Code: NIUMALU 2	References Cited
	<p>4. Due to concerns expressed by participants about the possible impacts of the KCC expansion to the ecology and its interrelationship with the natural and cultural resources within and near the Project area, including consideration of the mauka-makai connection of the land, the possible impacts of land-based activities stemming from the college on water resources, Nīwiliwili Bay, and the ocean, as well as the potential contamination of the watershed and of the Hule'i'a National Wildlife Refuge from the use of herbicides and methods of weed control at KCC, it is recommended that KCC limit or consider the use of non-toxic pesticides and employ the appropriate best management practices.</p> <p>5. Due to the current traffic congestion directly in front of the KCC campus attributed in part to vehicles turning into the Chevron gas station, and the likelihood that the traffic will likely be exacerbated by the KCC expansion, it is recommended that KCC work with the County or the State to install "the necessary signage or asphalt marking" as well as other safe means to improve the intersection flow.</p>		<p>Section 10 References Cited</p> <p>Abbott, Isabella A. 1992 <i>La'au Hawai'i</i>, Traditional Hawaiian Uses of Plants. Bishop Museum Press, Honolulu.</p> <p>Alexander, William D. 1878 Government Survey of Kaua'i. W.D. Alexander, surveyor. On file at the Hawai'i Land Survey Division, Department of Accounting and General Services, 1151 Punchbowl St., Room 210, Honolulu.</p> <p>1991 A Tour of Kauai in 1849: Private Journal of William DeWitt Alexander. <i>The Kauai Papers</i>, Kauai Historical Society, A Kauai Historical Society Publication, Lihue, Kauai, Hawai'i.</p> <p>Bennett, Wendell C. 1931 <i>The Archaeology of Kaua'i</i>. Bishop Museum Bulletin 80, Honolulu.</p> <p>Bernard, H. Russell 2006 <i>Research Methods in Anthropology: Qualitative and Quantitative Approaches, Fourth Edition</i>. Rowman Altamira, Lanham, Maryland.</p> <p>Baker, Ray Jerome (photographer) 1912 Picture of Menehune Fishpond. Courtesy of Bishop Museum, Honolulu, HI.</p> <p>Bingham, Hiram 1820s Map of Kaua'i. Courtesy of Kaua'i Museum.</p> <p>Bowers, Mandy 1984 Compilation of Songs about Kaua'i, for the Friends of Foster Garden, produced (typescript) by Moanalua Gardens Foundation. On file at Cultural Surveys Hawai'i, Kailua, Hawai'i.</p> <p>Boynton, David n.d. Menehune Fishpond. Electronic Document, http://www.hawaii.edu/environment/ainakumuwai/html/water.htm. Last Accessed on April 4, 2012.</p> <p>Chang, Lester 2007 Puhi Camp Residents to Gather for Reunion This Weekend. <i>The Garden Island</i> 26 May 2007. http://thegardenisland.com/news/article_cc59b9ca-4eb9-5523-a424-e162762df4d.html.</p> <p>Chinen, Jon J. 1958 <i>The Great Māhele, Hawaii's Land Division of 1848</i>. University of Hawai'i Press, Honolulu.</p> <p>Ching, F.K.W., P.B. Griffin, W.P. Kikuchi, W.H. Albrecht, J.C. Belshe, and C. Stauder 1973 <i>The Archaeology of Puna, Kaua'i, Niumala Ahupua'a, Loko Kuapa o Alekoko</i>. Archaeological Research Center Hawai'i, Lawai, Hawai'i.</p>
<p>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nīwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.</p> <p>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	112	<p>Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nīwiliwili, Niumala, and Ha'iki Ahupua'a, Lihue's District, Kaua'i Island.</p> <p>TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006</p>	113

- Clark, John R.K.**
1990 *Beaches of Kaua'i and Ni'ihau*. University of Hawaii Press, Honolulu.
- County of Kaua'i**
1936 **Map of political districts of the County of Kaua'i, Territory of Hawai'i.**
- Cordy, Ross, Joseph Tainter, Robert Renger, and Robert Hitchcock**
1991 "An Ahupua'a Study: The 1971 Archaeological Work at Kaloko Ahupua'a North Kona, Hawai'i: Archaeology at Kaloko-Honokōhau National Park." *Western Archaeological and Conservation Center Publications in Anthropology*, No. 58.
- Coulter, John W.**
1931 *Population and Utilization of Land and Sea in Hawaii*, 1853. B.P. Bishop Museum Press, Honolulu.
- Creed, Victoria S., Loren Zulick, Gerald K. Ida, D.W. Shideler, and H.H. Hammatt**
1999 Archaeological Assessment of the Proposed Lihue Airport Expansion Area, Hanamā'ulu and Kalapaki Ahupua'a, Lihue District, Island of Kaua'i (TMK 3-5-01: 5, 6, 8, 9, 109, 111, and 158 and 3-7-02: Por. 1). Cultural Surveys Hawai'i, Kailua, Hawai'i.
- Damon, Ethel M.**
1931 *Koamalu*. Privately printed at the Honolulu Star-Bulletin Press, Honolulu, (2 Volumes).
- Donohugh, Donald**
2001 *The Story of Kōloa, A Kaua'i Plantation Town*. Mutual Publishing, Honolulu, Hawai'i.
- Dorrance, William H. and Francis S. Morgan**
2000 *The 165-Year Story of Sugar in Hawai'i*. Mutual Publishing, Honolulu, Hawai'i.
- Foote, Donald E., Elmer L. Hill, Sakuichi Nakamura, and Floyd Stephens**
1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lāna'i*. State of Hawai'i. Soil Conservation Service, U.S. Department of Agriculture.
- Giambelluca, Thomas W., Michael A. Nullett, and Thomas A. Schroeder**
1986 *Rainfall Atlas of Hawai'i*. Department of Land and Natural Resources, SHPD/DLNR, State of Hawai'i, Honolulu.
- GeoEarth**
2001 GeoEye satellite imagery, Hawai'i, Kaua'i, Hawai'i. Electronic Document. <http://services.arcgisonline.com/arcgis/services>. Access date unknown.
- Hammatt, Hallett H., and Victoria S. Creed**
1993 Archaeological Inventory Survey of 61.6 Acres in Nāwiliwili, Kaua'i. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.
- Hammatt, Hallett H., and Rodney Chiogioji**
1998 Archaeological Assessment of an Approximately 11.5 Kilometer-long Portion of the Ka'umuali'i Highway Corridor Through Nāwiliwili, Ha'ikū, and Kōloa Ahupua'a, Island of Kaua'i. Cultural Surveys Hawai'i, Kailua, Hawai'i.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

114

- Hammatt, Hallett H., and David W. Shideler**
2004 Archaeological and Cultural Impact Evaluation Study in Support of Development of the "One-Stop Center, Kaua'i Community College" Project. Cultural Surveys Hawai'i, Kailua, Hawai'i.
- Handy, E.S. Craighill, and Elizabeth G. Handy**
1972 *Native Planters in Old Hawaii: Their Life, Lore, and Environment*. Bishop Museum Press, Bulletin 233, Honolulu.
- Handy, E.S. Craighill**
1940 *The Hawaiian Planter*, Volume I, Bishop Museum Bulletin 161, Bishop Museum Press, Honolulu.
- Hawai'i TMK Service**
1984 Tax Map Keys [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006. On file at Hawai'i TMK Service, 222 Vineyard Boulevard, Suite 401, Honolulu.
- Henry, Jack D., Alan T. Walker, Kepa Maly, and Paul H. Rosendahl**
1993 Archaeological Inventory Survey, Grove Farm Lihue/Puhi Project Area, Land of Nāwiliwili, Niumalu, and Haiku, Lihue District, Island of Kauai. Paul H. Rosendahl, Ph.D., Inc, Hilo, Hawai'i.
- Jackson, George G.**
1881 Map of Nāwiliwili Harbor.
- Joesting, Edward**
1984 *Kaua'i: The Separate Kingdom*. University of Hawai'i Press and Kaua'i Museum Association, Ltd., Honolulu.
- Juvik S.P. and J.O. Juvik.**
1998 *Atlas of Hawai'i*. University of Hawai'i Press, Honolulu.
- Kaiwi, J.H.**
1921 "Story of the Race of Menhunes of Kauai." In *Hawaiian Annual* (Thomas G. Thrum, Ed.), pp. 114-118, Honolulu, Hawai'i.
- Kamakau, S.M.**
1961 *Ruling Chiefs of Hawai'i*. Honolulu: Kamehameha Schools Press.
- Kamins, Robert M., and Robert E. Potter**
1998 *Mālamalama, A History of the University of Hawai'i*. University of Hawaii Press, Honolulu.
- Kauai Historical Society**
n.d. Picture of Niumalu Flats and fishponds.
1905 Picture of taro cultivated in the vicinity of Pu'alai Stream. Electronic document, <http://www.hawaii.edu/environment/ainakumuwai/html/water.htm>. Last accessed April 2012.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

115

- 1934 Picture of Menehune Fishpond. Electronic document. <http://www.hawaii.edu/environment/ainakumuwai/html/water.htm>. Last accessed April 4, 2012.
- 1991 *The Kauai Papers*. Kaua'i Historical Society, Lihue'e, Kaua'i.
- 2012 "Āinakumuwai: Ahupua'a of Nāwiliwili Bay. Electronic document, <http://www.hawaii.edu/environment/ainakumuwai/html/ainakumwaitour3.htm>. Last accessed on April 4, 2012.
- n.d. Picture of Kalapaki Bay, Courtesy of Kauai Museum. Electronic document, <http://www.hawaii.edu/environment.ainakumuwai.html/water.htm>. Last accessed on April 4, 2012.
- Kido, Michael H.**
1986 Preliminary Survey of the Alekoko Fishpond and Hule'ia Estuary, 6-12. In *Archaeology on Kaua'i*, Vol. 13, No. 1, Issue 31, March 1986. Anthropology Club of Kaua'i Community College, Lihue'e.
- Kikuchi, William K.**
1973 *Hawaiian Aquacultural System*. Ph.D. Dissertation. The University of Arizona, Tucson, Arizona.
1987 "The Fishponds of Kaua'i," *Archaeology on Kaua'i, Vol. 14, No. 1, March, Anthropology Club*. Kaua'i Community College, Puhi, Kaua'i.
- Krauss, Bob, and William P. Alexander**
1984 *Grove Farm Plantation: the Biography of a Hawaiian Sugar Plantation*. Pacific Books, Palo Alto, CA.
- Landgraf, Anne Kapulani**
1994 *Nā Wahi Pana 'o Ko'olau Poko*. University of Hawai'i Press, Honolulu.
- Lydgate, Helen Elwell**
1991 A Visit to Kauai in 1865: The Journal of William T. Brigham, *The Kauai Papers*, Kauai Historical Society, A Kauai Historical Society Publication, Lihue'e, Kaua'i.
- Mays, Nicholas and Catherine Pope**
1995 "Rigour and qualitative research." *British Medical Journal* 311:109-112.
- McMahon, Nancy**
1990 Archaeological Fieldcheck of Three Parcels in Lihue's Judiciary District: Possible Locations for a New Kaua'i Judiciary Building, Nāwiliwili, Kalapaki, and Hanamā'ulu, Kaua'i. Historic Preservation Program, State of Hawai'i.
- Moffat, Riley M. and Gary L. Fitzpatrick**
1995 Surveying the Mahele, Mapping the Hawaiian Land Revolution, (Palapala'aina, Volume 2). Editions, Ltd., Honolulu, Hawai'i.
- Neller, Earl, and Stephen Palama**

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

116

- 1973 *The Archaeology of Puna, Kauai, From the Ahupua'a of Niumalu to the Ahupua'a of Kipu*. Prepared for Community Planning, Inc. Archaeological Research Center Hawaii, Lawa'i, Hawai'i.
- Nogelmeier, M. Puakea**
2006 *The Epic Tale of Hi'ikaikapoliopole*. Awaiaulu Press, Honolulu.
- O'Hare, Constance R., Kepa Maly and Paul H. Rosendahl**
1993 Archaeological Inventory Survey Puakea Parcel Lands of Niumalu and Ha'iku, Lihue District, Island of Kaua'i. Paul H. Rosendahl, Ph.D., Inc, Hilo, Hawai'i.
- Palama, Stephen L.**
1973 An Archaeological Reconnaissance of a Portion of the New Kaua'i Community College at Puhi, Ha'iku Ahupua'a, Island of Kaua'i. Project 14-16. Archaeological Research Center Hawaii, Lawa'i, Hawai'i.
- Pukui, Mary Kawena, and Samuel H. Elbert**
1986 *Hawaiian Dictionary*. 2nd Edition. University of Hawai'i Press, Honolulu.
- Pukui, Mary Kawena, Elbert, Samuel H and Esther T. Mookini**
1974 *Place Names of Hawai'i*, University of Hawai'i Press, Honolulu.
- Rice, William Hyde**
1923 *The Menehune, a Legend of Kauai in Hawaiian Legends*, 33-46. Bernice P. Bishop Museum, Bulletin 3, Honolulu.
Hawaiian Legends. Originally published in 1923. Bernice P. Bishop Museum, Honolulu.
1974 *Hawaiian Legends*. Originally published in 1923. Bernice P. Bishop Museum, Honolulu, Hawai'i.
- Riznik, Barnes**
1999 From Barracks to Family Homes: A Social History of Labor Housing Reform on Hawai'i's Sugar Plantations. *The Hawaiian Journal of History* 33:119-157.
- Rosendahl, Paul H.**
1989 Addendum Report: Archaeological Inventory Survey of Eight Additional Areas Grove Farm Lihue/Puhi Project Area. Paul H. Rosendahl, Ph.D., Inc, Hilo, Hawai'i.
- Sato, Harry H., R. Paeth and W. Ikeda**
1973 *Soil Survey of Island of Hawai'i, State of Hawai'i*. U.S. Department of Agriculture and University of Hawai'i Agricultural Experiment Station, Soil Conservation Service, Honolulu, Hawai'i.
- Soehren, Lloyd**
2010 A Catalog of Hawaiian Place Names. Compiled for the Records of the Boundary Commission and The Board Commissioners to Quiet Land Titles of the Kingdom of Hawai'i. Collected and annotated by Lloyd J. Soehren. Online at the Ulukau Website, <http://ulukau.org/cgi-bin/hpn/?=en>.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

117

TenBruggencate, Jen

2000 "Kauai man a constant in world of change." *Honolulu Advertiser* April 24, 2000, pp. B-1 & 2.

U.S. Geological Survey

- 1910 U.S. Geological Survey 7.5 Minute Series Topographic Map, Lihu'e Quadrangle, showing Project area location. On file at USGS Information Services, Box 25286, Denver, Colorado.
- 1963 U.S. Geological Survey 7.5 Minute Series Topographic Map, Lihu'e Quadrangle, showing Project area location. On file at USGS Information Services, Box 25286, Denver, Colorado
- 1977-78 U.S. Geological Survey 7.5 Minute Series Topographic Map, Lihu'e Quadrangle, showing Project area location. On file at USGS Information Services, Box 25286, Denver, Colorado
- 1996 U.S. Geological Survey 7.5 Minute Series Topographic Map, Lihu'e Quadrangle, showing Project area location. On file at USGS Information Services, Box 25286, Denver, Colorado

U.S. National Archives and Records

- 1941 Lihue Plantation Sugar Mill. Electronic document, http://commons.wikimedia.org/wiki/File:LIHUE_PLANTATION_SUGAR_MILL_-_NARA_-_553969.jpg. Last accessed April 4, 2012.

Victoria, Pedro T.

- 1941 Map of 1941 Kihue Plantation, Lihue and Hanamaulu Sections. Traced and enlarged by Pedro T. Victoria.

Waiihona 'Aina

- 2000 *The Māhele Database*. Electronic Document, <http://waiihona.com>. Last accessed February 5, 2012.

Walker, Alan T., Lehua Kalima, and Susan T. Goodfellow

- 1991 Archaeological Inventory Survey, Lihu'e/Puhi/Hanamā'ulu Master Plan, Lands of Hanamā'ulu, Kalapaki, Nāwiliwili, Niumalu, and Wailua, Lihu'e District, Island of Kaua'i. Paul H. Rosendahl, Ph.D., Inc, Hilo, Hawai'i.

Walker, Alan T., and Paul Rosendahl

- 1988 Archaeological Surface and Subsurface Inventory Survey at a Grove Farm Lihu'e/Puhi Project Area. Paul H. Rosendahl, Ph.D., Inc, Hilo, Hawai'i.

Wichman, Frederick B.

- 1998 *Kaua'i: Ancient Place-names and Their Stories*. University of Hawaii Press, Honolulu.

Wilcox, Carol

- 1998 *Sugar Water, Hawaii's Plantation Ditches*. University of Hawai'i Press, Honolulu.

Wilkes, Charles

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihu'e District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

118

- 1845 Narrative of the United States Exploring Expedition, Volume 4. Lea and Blanchard, Philadelphia, Pennsylvania.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihu'e District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

119

Appendix A Glossary

To highlight the various and complex meanings of Hawaiian words, the complete translations from Pukui and Elbert (1986) are used unless otherwise noted. In some cases, alternate translations may resonate stronger with Hawaiians today; these are placed prior to the Pukui and Elbert (1986) translations and marked with "(common)."

Diacritical markings used in the Hawaiian words are the 'okina and the kahakō. The 'okina, or glottal stop, is only found between two vowels or at the beginning of a word that starts with a vowel. A break in speech is created between the sounds of the two vowels. The pronunciation of the 'okina is similar to saying "oh-oh." The 'okina is written as a backwards apostrophe. The kahakō is only found above a vowel. It stresses or elongates a vowel sound from one beat to two beats. The kahakō is written as a line above a vowel.

Hawaiian Word	English Translation
<i>adobo</i> (Filipino)	Filipino dish involving meat cooked with vinegar, soy sauce, and bay leaves.
ahupua'a	Land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (ahu) of stones surmounted by an image of a pig (pua'a), or because a pig or other tribute was laid on the altar as tax to the chief.
akua	God, goddess, spirit, ghost, devil, image, idol, corpse; divine, supernatural, godly.
ali'i	Chief, chiefess, officer, ruler, monarch, peer, headman, noble, aristocrat, king, queen, commander.
'āpana	Piece, slice, portion, fragment, section, land parcel.
'auwai	Ditch, canal.
<i>bagong</i> (Filipino)	Fermented shrimp paste.
<i>bitsu-bitsu</i> balls	Filipino dessert. Also known as <i>cascaron</i> .
<i>furo</i> (Japanese)	Japanese bathtub.
he'enalu	To ride a surfboard, surfing, surf rider.
heiau	Pre-Christian place of worship, shrine; some heiau were elaborately constructed stone platforms, others simple earth

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihu'e District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

A-1

	terraces. Many are preserved today.
ho'okupu	Offering, gift.
hukilau	To fish with a seine.
hula	To dance the hula, a Native Hawaiian dance.
'ili	Land section, next in importance to an ahupua'a and usually a subdivision of an ahupua'a.
'ili 'āina	Land area. An 'ili land division whose chief pays tribute to the chief of the ahupua'a of which it is a part, rather than directly to the king.
'ili kū	Short for 'ili kūpono. A nearly independent 'ili land division within an ahupua'a, paying tribute to the ruling chief and not to the chief of the ahupua'a.
kaheka	To call, cry out, invoke, greet, name.
kahuna	Priest, sorcerer, magician, wizard, minister, expert in any profession. Kāhuna—plural of kahuna.
kama'āina	Native-born, one born in a place, host; native plant; acquainted, familiar, Lit., land child.
kānaka maoli	Full-blooded Native Hawaiian person.
kaona	Hidden meaning, as in Hawaiian poetry.
kapu	Taboo, prohibition; special privilege or exemption from ordinary taboo.
<i>kimchi</i> (Korean)	Korean fermented spicy cabbage.
ki'owai	Pool of water, water hole, fountain.
ko'a	Fishing grounds, usually identified by lining up with marks on shore. Shrine, often consisting of circular piles of coral or stone, built along the shore or by ponds or streams, used in ceremonies as to make fish multiply.
koa	Brave, bold, to act as a soldier.
kōkua	Help, aid, assistance, relief, assistant, associate, deputy,

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'iki Ahupua'a, Lihu'e District, Kaua'i Island.
TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

A-2

	helper; co-operation, old term for lawyer before loio was used; to help, assist, support, accommodate, second a motion.
konohiki	Headman of an ahupua'a land division under the chief.
kuapā	Dashing, slashing, as waves on a shore. Wall of a fishpond. Fishpond made by building a wall on a reef.
kula	Plain, field, open country, pasture. An act of 1884 distinguished dry or kula land from wet or taro land.
kuleana	Native Hawaiian land rights (common). Right, privilege, concern, responsibility, title, business, property, estate, portion, jurisdiction, authority, liability, interest, claim, ownership, tenure, affair, province.
kū'ula	Heiau near the sea for worship of fish gods.
kupua	Demigod or culture hero, especially a supernatural being possessing several forms; one possessing mana; to possess kupua (magic) powers.
kupuna	Elders (common). Grandparent, ancestor, relative or close friend of the grandparent's generation, grandaunt, granduncle. Kūpuna—plural of kupuna.
limu	A general name for all kinds of plants living under water, both fresh and salt.
lei	Garland, wreath, necklace of flowers, shells, ivory, feathers, or paper, given as a symbol of affection; any ornament worn around the head or about the neck.
lo'i	Irrigated terrace, especially for taro, but also for rice; paddy.
loko i'a	Fishpond (common).
loko wai	Fresh-water pond or lake.
loko kuapā	Fishpond made by building a wall on a reef.
lū'au	Young taro tops, especially as baked in coconut cream and chicken or octopus.
Māhele	Land division of 1848.

Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Ni'iheliwili, Ni'umala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

A-3

maka'āinana	Commoner, populace, people in general.
makai	Seaward.
makana	Gift.
<i>malasada(s)</i> (Portuguese)	Portuguese pastry.
malu	Shade, shelter, protection.
mana'o	Thought, idea, belief, opinion, theory.
<i>manapua</i>	Steamed meat buns.
mauka	Inland.
mele	Song, anthem or chant of any kind; poem, poetry; to sing, chant.
menehune	Ledendary race of small people who worked at night, building fishponds, roads, temples.
<i>miso</i> (Japanese)	Japanese soup.
moku	District, island, islet, section.
mo'olelo	Story, tale, myth, history, tradition, literature, legend, journal, log, yarn, fable, essay, chronicle, record, article; minutes, as of a meeting. (From mo'o 'ōlelo, succession of talk; all stories were oral, not written).
<i>musubi</i> (Japanese)	Rice with seaweed that usually has a filling such as spam.
<i>nishime</i> (Japanese)	Japanese vegetable stew.
nui	Big, large, great, important.
<i>obake</i> (Japanese)	Spirit.
'ohana	Family, to gather for family prayers.
'ōhi'a	Two kinds of trees: see 'ōhi'a ai and 'ōhi'a lehua.
'ōlelo no'ēau	Proverb, wise saying, traditional saying.

Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Ni'iheliwili, Ni'umala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

A-4

oli	Chant that was not danced to, especially with prolonged phrases chanted in one breath, often with a trill at the end of each phrase; to chant thus.
'ono	Delicious, tasty, savory.
<i>pansit</i> (Filipino)	A Filipino noodle dish.
pili	To cling, stick, adhere, touch, join, adjoin, associate with.
<i>pinkabet</i> (Filipino)	Filipino stew with vegetables.
pōhaku	Rock, stone, mineral.
poi	Poi, the Hawaiian staff of life, made from cooked taro corms, or rarely breadfruit, pounded and thinned with water.
pu'u	Any kind of a protuberance from a pimple to a hill, hill, peak.
pule	Prayer, blessing.
<i>sakada(s)</i>	Term used to describe Filipino men imported by the HSPA to Hawai'i as unskilled laborers.
<i>sipa</i> (Filipino)	To kick, Filipino traditional sport.
<i>taiko</i> (Japanese)	Japanese percussion instrument.
<i>takenoko</i> (Japanese)	young bamboo shoots
'ukulele	Leaping flea, probably from the Hawaiian nickname of Edward Purvis, who was small and quick and who popularized the instrument brought to Hawai'i by the Portuguese in 1879.
wahi pana	Storied place (common). Legendary place.
wai	Water, liquid or liquor of any kind other than sea water.

Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Ni'iheliwili, Ni'umala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

A-5

Appendix B Common and Scientific Names for Plants and Animals Mentioned by Community Participants

Cultural Surveys Hawai'i Job Code: NIUMALU 2

Appendix B Common and Scientific Names for Plants and Animals Mentioned by Community Participants

Common Names		Possible Scientific Names		Source
Hawaiian	Other	Genus	Species	
akole	big-eyed scud	<i>Scud</i>	<i>crinocope/hahakius</i>	Hoover 2003
'āhī	any kind of orange, both fruit and tree	<i>Citrus</i>	<i>sinensis</i>	Pakuai and Elbert 1986
'awa	kava	<i>Piper</i>	<i>methy-sticum</i>	Pakuai and Elbert 1986
'āhā	pineapples	<i>Pandanus</i>	<i>spp.</i>	Wagner et al. 1999
'āhā kahiki	pineapple	<i>Ananas</i>	<i>comosus</i>	Pakuai and Elbert 1986
'āhā	beach hibiscus	<i>Hibiscus</i>	<i>illicerus</i>	Wagner et al. 1999
he'e	octopus, squid, <i>lolo</i>	Multiple families and species		Hoover 1993
'āhā	taro	<i>Colocasia</i>	<i>esculenta</i>	Wagner et al. 1999
koa		<i>Acacia</i>	<i>koa</i>	Pakuai and Elbert 1986
kuwaa	guava	<i>Psidium</i>	<i>guajava</i>	Pakuai and Elbert 1986
lulū	camellia	<i>Alseodaphne</i>	<i>moluccana</i>	Wagner et al. 1999

Cultural Impact Assessment for the Kaula's Community College Redesignation of Urban District Project, Ni'iheliwili, Ni'umala, and Ha'iki Ahupua'a, Lihue District, Kaula's Island.
TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

B-1

tiwa'u	dark-rumped petrel	<i>Pterodroma phaeopygia</i>	<i>sandkeensis</i>	Paku and Elbert 1986
waike	paper mulberry	<i>Broussonetia</i>	<i>papyrifera</i>	Paku and Elbert 1986
wiluwili	leguminous tree	<i>Erythrina</i>	<i>sandkeensis</i>	Wagner et al. 1999
	beans	<i>Phaseolus</i>	<i>spp.</i>	Wagner et al. 1999
	mango	<i>Mangifera</i>	<i>indica</i>	Wagner et al. 1999
	Philippine ground orchid	<i>Sphegodes</i>	<i>plicata</i>	
	sugar cane	<i>Saccharum</i>	<i>spp.</i>	Wagner et al. 1999

*spp. = multiple species

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project,
Niihau, Niimaha, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.

TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

B-3

kibonuu	spotted-back crab	<i>Puerania</i>	<i>sanguinolentus</i>	Hoover 1993
liho'i	passion fruit	<i>Passiflora</i>	<i>edulis</i>	Wagner et al. 1999
ma'a	banana	<i>Musa</i>	<i>sapientissima</i>	Wagner et al. 1999
ma'e	a native twining shrub	<i>Alysic</i>	<i>chrysantha</i>	Paku and Elbert 1986
<i>malangasap</i>	dumstick tree	<i>Moringa</i>	<i>spp.</i>	
manini	convictiang	<i>Acanthium</i>	<i>tristegnum</i>	Hoover 2003
mohakua	citrus tree native to Kaua'i	<i>Ptelea</i>	<i>antisa</i>	Paku and Elbert 1986
oh'a		<i>Metrosideros</i>	<i>polynesiensis</i>	Wagner et al. 1999
o'opu	general name for fishes included in the families Eleotridae, Gobiidae, and Blenniidae			
tophi	limpet	<i>Codium</i>	<i>spp.</i>	Paku and Elbert 1986
pepeiao	cloud ear fungus	<i>Auricularia</i>	<i>auricula</i>	Paku and Elbert 1986
poiaka	frog	<i>Canis</i>	<i>indica</i>	Wagner et al. 1999
puco	Hawaiian short-eared owl	<i>Asio flammeus</i>	<i>sandkeensis</i>	Paku and Elbert 1986
tuhi	sweet potato	<i>Ipomoea</i>	<i>turritus</i>	Wagner et al. 1999


Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project,
Niihau, Niimaha, and Ha'iki Ahupua'a, Lihue District, Kaua'i Island.

TMC: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

B-2

Appendix C Authorization and Release Form

Cultural Surveys Hawaii's, Inc.
Archaeological and Cultural Impact Studies
Richard H. Barrett, Ph.D., President
P.O. Box 1114 Kailua, Hawaii 96734 Ph: (808) 242-4972 Fax: (808) 242-4918
Job order: NIUMALU.2 info@cultural surveys hawaii s.com www.cultural surveys hawaii s.com



AUTHORIZATION AND RELEASE FORM

Cultural Surveys Hawaii's (CSH) appreciates the generosity of the *signatory* and *signatory* who are sharing their knowledge of cultural and historic properties, and experiences of past and present cultural practices in the Ahupua'a of Niimaha, Niimaha, and Ha'iki for the Cultural Impact Assessment CSH is preparing for the proposed Kaua'i Community College Extension Campus Project.

We understand our responsibility in reporting the wishes and concerns of the interviewees participating in our study. Here are the procedures we promise to follow:

- The interview will not be tape-recorded without your knowledge and explicit permission.
- You will have the opportunity to review the written transcript or notes of our interview with you. At that time you may make any additions, deletions or corrections you wish.
- You will be given a copy of the interview transcript or notes for your records.
- You will be given a copy of this release form for your records.

For your protection, we need your written confirmation that:

- You consent to the use of the complete transcript and/or interview notes for reports on cultural sites and practices, historic documentation, and/or academic purposes.
- You agree that the interview shall be made available to the public.

Out of courtesy we would like to recommend that:

- If you provided an interview to CSH in the past (for Kaua'i's), we may include all or parts of the prior interview's published in past reports in the current report.

I, _____, agree to the procedures outlined above and, by my signature, give my consent and release for this interview and/or photograph to be used as specified.

(Signature)

(Date)

Appendix D Community Consultation Letter

Cultural Surveys Hawaii's, Inc.
Archaeological and Cultural Impact Studies
Richard H. Barrett, Ph.D., President
P.O. Box 1114 Kailua, Hawaii 96734 Ph: (808) 242-4972 Fax: (808) 242-4918
Job order: NIUMALU.2 info@cultural surveys hawaii s.com www.cultural surveys hawaii s.com



September 20, 2011

Aloha,

At the request of Wilcox Okamoto Corporation and the University of Hawaii's Community College (UHCC), Cultural Surveys Hawaii's, Inc. (CSH) is conducting a Cultural Impact Assessment (CIA) for the Kaua'i Community College (KCC) Extension Campus Project. The proposed Project is located in Pali, in the Ahupua'a of Niimaha, Niimaha, and Ha'iki, approximately two miles west of the County seat in Lihue District, Kaua'i Island, on two map key (TMC) parcels: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006. The attached aerial photograph and U.S. Geological Survey maps show the Project area.

The UHCC proposes to amend the State Land Use Boundary to re-designate the entire 199-acre KCC campus from its existing land use classification of Agricultural District to Urban District. The Project consists of the re-designation of land, as well as the construction of new buildings, additions to buildings, and new parking. A Special Permit was granted by the State Land Use Commission in 1973 for construction of the college campus within an approximately 100-acre parcel situated within TMC [4]-3-4-007-003. Most of the additional approximately 100 acres (within TMC [4]-3-4-007-001, 002, and 006) are undeveloped, except for two Hawaiian Language Immersion schools, Pinnas Lee + Kaua'i Pre-School and Trenchard New Century Public Charter School.

The 199-acre campus, built on former sugar cane land, is owned by the State of Hawaii's University of Hawaii's. The KCC is a two-year public community college and the only public institution of higher learning on the island of Kaua'i. It provides community services in addition to its educational mission. The KCC was originally established in 1959 as Kailua-Venice School and over time, the institution has developed into a comprehensive community college. In 1999, a Long Range Development Plan for the college was published which provides guidelines for the development of the campus to accommodate a population of 3,000 full-time students. Currently, the KCC has a population of approximately 700 full-time students; thus, much of the planned campus development has yet to be implemented. The land use re-designation of the KCC campus from Agricultural District to Urban District would be more consistent with its developed character.

The purpose of this cultural study is to assess potential impacts to cultural practices, as a result of the proposed Project, in the Ahupua'a of Niimaha, Niimaha, and Ha'iki. We are seeking your advice and guidance regarding the following aspects of our study:

- General history and present and past land use of the Project area.

- Knowledge of cultural sites which may be impacted by future decommissioning of the Project area, for example, historic, archaeological, and burial sites.
- Knowledge of traditional gathering practices in the Project area, both past and ongoing.
- Cultural associations of the Project area, such as legends and traditional uses.
- Referrals of *āhupuaʻa* or others and *kamaʻāina* who might be willing to share their cultural knowledge of the Project area and the surrounding *āhupuaʻa*'s lands.
- Any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the Project area.

We invite you to contact us, Argelia Fa'ama, at (808)-227-8835 (e-mail: afama@culturalurcyys.com), or Margaret Magat, at (808)-990-6340 (e-mail: mmagat@culturalurcyys.com) if you have any information you would like to share.

M. J. Griffin

Angela Fa'amama, M.S.P.H.
Cultural Researcher
Cultural Surveys Hawaii, Inc.

Margaret Magat, PhD,
Cultural Researcher
Cultural Surveys Hawai'i, Inc.

Cultural Impact Assessment for the Kaua'i Community College Redesignation of Urban District Project, Nāwiliwili, Niumalu, and Ha'ikū Ahupua'a, Lāhū'e District, Kaua'i Island.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

D-2

Appendix E SHPD Response Letter

[illegible]

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-006

E-1

Appendix F OHA Response Letter

PRECISE (2002) 004-1000
 FAX (2002) 004-1000
 STATE OF HAWAII
 OFFICE OF HAWAIIAN AFFAIRS
 771 KAPOLANI BOULEVARD, SUITE 500
 HONOLULU, HAWAII 96813
 HRD1014994C
 November 17, 2011
 Angela Yi'annou and Margaret Magui, Cultural Researchers
 Cultural Surveys Hawaii, Inc.
 P.O. Box 1114
 Kailua, Hawaii 98134
 Re: **Cultural Impact Assessment Consultation**
State Land Use Boundary Amendment
Kaun's Community College
Puhi, Island of Kauai
 Aloha e Angela Yi'annou and Margaret Magui,
 The Office of Hawaiian Affairs (OHA) is in receipt of your September 30, 2011 letter with enclosures seeking commenters shared of a cultural impact assessment (CIA) which will be prepared to support a petition from the Kaun's Community College (KCC) to the State Land Use Commission (LUC) for a District Boundary Amendment (DBA). If approved by the LUC, the DBA will facilitate the implementation of the KCC Long Range development Plan which will eventually accommodate a student enrollment of 3,000 full time students.
 By letter dated June 14, 2011, OHA provided comments on a draft environmental assessment (DBA) which has already been prepared to support the petition to the LUC for a DBA. This letter is attached for your reference. The DBA petition area encompasses multiple tax map key parcels and a total of 199 acres. Of this total, 99+ acres contains the existing KCC campus and 100+ acres are currently vacant lands which are subject to previous, informal, agricultural cultivation as shown on the aerial photographs included with your letter.
 OHA recommends that you contact the two Hawaiian Language Immersion Schools (Punaea Lani e Koni) and Kawailani West Century Public Charter Schools) which are situated on the KCC campus, as they may be willing to participate in CIA consultation and share their thoughts with you. OHA notes that a cemetery is depicted on the U.S. Geological Survey map included with your letter. While it appears this cemetery is located on or outside of the DBA area, please, OHA believes that you should be consulted on the location. The DBA (page 5-19) identifies this cemetery as SDBB number 50-31-11-B006, the "Pali Camp Cemetery." While OHA has no specific information relative to the cemetery at this time, it is possible that certain lineal descendants of those buried there may be interested in participating in CIA consultation and sharing their thoughts with you.

TMK: [4]-3-4-007-001, [4]-3-4-007-002, [4]-3-4-007-003, and [4]-3-4-007-005

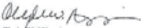
E.1

Appendix F OHA Response Letter

Angela Po'ne and Margaret Mages, Cultural Researchers
Colson-Servino-Henry, Inc.
November 17, 2011
Page 2 of 2

Thank you for initiating consultation and for the opportunity to provide comments at this early stage. We look forward to reviewing the completed CIA and providing additional comments at that time.

'O waa ilo nō me ka 'ua'Yū,



Clyde W. Nima'o
Chief Executive Officer

CWPNM


Attachments: (1) June 3, 2011 OHA DBA comment letter

C. OHA: Kuu's Community Outreach Coordinator

Cultural Impact Assessment for the Kaula'i Community College Redesignation of Urban District Project, Niawiiliwi, Niumalu, and Ha'iki Ahupua'a, Lihue District, Kaula'i Island.

E.2

PHONE (808) 584-1888 FAX (808) 584-1888


STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
771 KAPUOLANI BOULEVARD, SUITE 300
HONOLULU, HAWAII 96813

HRD1149948

June 3, 2011

Eael Matsukawa, Project Manager
Wilson Okamoto Corporation
1907 South Hialeah Street
Aurora Plaza, Suite 400
Hialeah, Hawaii 33156

Re: Draft Environmental Assessment
State Land Use Boundary Amendment
Kaua'i Community College
Pohi, Island of Kaua'i

Aloha e Eael Matsukawa,

The Office of Hawaiian Affairs (OHA) is in receipt of your May 2, 2011 letter requesting comments on a draft environmental assessment (DEA) which has been prepared to support an amendment to State Land Use Boundary and re-designate four (4) map key parcels (TMK) consisting of approximately 199 acres of land from the Agricultural District to the Urban District (UD) which are under the control of the University of Hawaii (UH). Approximately 99 acres of land which are subject to this action (TMK 3-4-07-002) constitute the existing Kaua'i Community College (KCC) campus which was completed in 1977 on lands donated by Grove Farm in 1973. Development of the KCC campus within the Agricultural District was facilitated by a special use permit granted by the State Land Use Commission in 1973. The majority of the remaining three (3) map key parcels consisting of approximately 100 acres are undeveloped, with two Hawaiian Language immersion schools situated on a portion of TMK 3-4-07-002 (DEA, Chapter 2.2).

This action will secure appropriate land use entitlements as KCC moves forward with improvements that will facilitate the implementation of their Long Range Development Plan (LRDP) which will eventually use KCC accommodate a student enrollment of 3,000 full time students (DEA, Chapter 2.4). Since KCC is the only public institution of higher learning on Kaua'i, OHA recognizes the importance of the LRDP and we applaud the efforts of all involved in increasing educational programs and opportunities on Kaua'i.


We do seek assurance that the two Hawaiian Language Immersion Schools (Puuena Leo o Kaua'i and Kawaikihi New Century Public Charter School) which are situated on KCC lands have been consulted on this action. It may be appropriate for the location of these schools and

Eael Matsukawa, Project Manager
Wilson Okamoto Corporation
June 3, 2011
Page 2 of 3

their progress and operations into the future be secured through agreements (if none already exist) with UH as the LRDP is implemented. We do note that the DEA (Figure 2-7) depicts agricultural uses being developed on the lands immediately adjacent to the schools as the LRDP is implemented. The continued operations of these schools combined with the implementation of the KCC LRDP may be compatible with the "Hawaii P-20 Partnerships for Education", a partnership led by the "Good Beginnings Coalition, the State of Hawaii" Department of Education and the University of Hawaii's System which is working to strengthen the educational pipeline from early childhood through higher education so that all students achieve college and career success.

Thank you for the opportunity to provide comments. Please send an electronic copy of the final environmental assessment to us for our records. Should you have any questions, please contact Kevin Lindsey at 594-6244 or kevin@paha.org.

O waa iho aa me ka 'ole'a'o,


Chela H. Nawa
Chief Executive Officer

C OHA- Kaua'i Community Outreach Coordinator