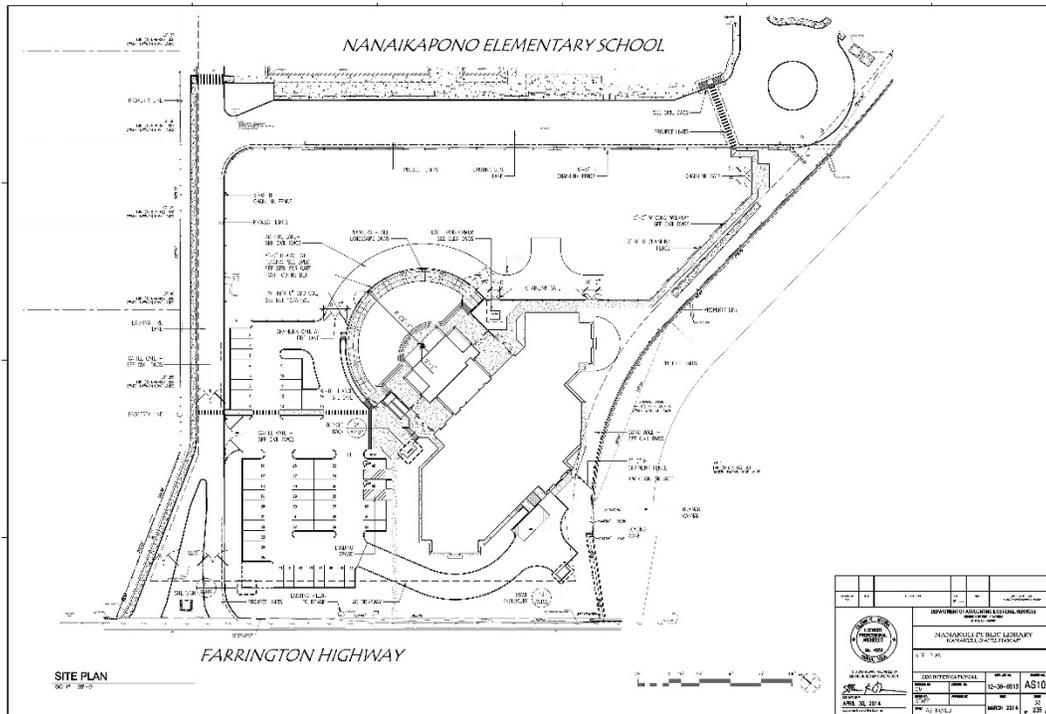


FINAL—Archaeological Monitoring Plan for the Proposed Nānākuli Library, Nānākuli Ahupua‘a, Wai‘anae District, Island of O‘ahu, Hawai‘i

TMK: (1) 8-9-002:065 (por.)



Prepared For:

CDS International
1003 Bishop St. Suite 1400
Honolulu, HI 96813

December 2014



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December 2014



MANAGEMENT SUMMARY

Archaeological monitoring will be conducted for ground disturbing activity associated with construction of the Nānākuli Library on TMK: (1) 8-9-002:065 (por.) in Nānākuli Ahupua‘a, Wai‘anae District, on the island of O‘ahu, Hawai‘i. This monitoring plan is designed to identify and appropriately treat archaeological resources that might be encountered during construction. The remains of Camp Andrews, Sites 50-80-07-5946 and -7677 are located on the property, and Site 7677 will be preserved in place. Full time archaeological monitoring will be carried out for all ground disturbance associated with construction of the library.

CONTENTS

MANAGEMENT SUMMARY	i
FIGURES	iv
TABLES	iv
INTRODUCTION	1
Project and Location	1
Physical Environment	1
BACKGROUND	7
<i>Inoa 'Āina</i> Nānākuli: Place Names	7
Nānākuli 'Ōlelo No'eau and <i>Mo'olelo</i>	9
'Ōlelo No'eau	9
<i>Mo'olelo</i>	10
Power and Warfare in Wai'anae	11
Land Use and Subsistence	12
<i>Heiau</i>	13
Nānākuli in the Historic Period	13
Māhele Land Tenure and Historic Land Use	15
Historic Maps	16
Previous Archaeology	18
Archaeological Projects in Nānākuli	18
Archaeological Work on the Subject Property	26
Summary of Environmental and Cultural Background	29
Archaeological Implications and Anticipated Finds	29
PROJECT DESIGN	31
Project Personnel	31
Fieldwork	31
Interim Protection for Site 7677	31
Post-Field Actions	34
SUMMARY AND CONCLUSION	35
GLOSSARY	36
REFERENCES	38
APPENDIX: SHPD REVIEW LETTERS FOR TMK: (1) 8-9-00:065	43

FIGURES

Figure 1. Project location on a 7.5 minute USGS Waianae quadrangle map.	3
Figure 2. Project area (outlined in red) on TMK plat (1) 8-9:002.	4
Figure 3. Construction plans for the Nānākuli Library.....	5
Figure 4. Soils in the vicinity of the project area.....	6
Figure 5. Portion of an 1854 Hawaiian Government Survey map (Webster 1854).....	17
Figure 6. Portion of 1912 Hawai‘i Territory Survey Map (Newton 1912).....	19
Figure 7. Portion of a 1925 Hawaii Territory Survey map (Wall 1925).	20
Figure 8. Portion of a 1930 Hawaiian Homes Commission map (Evans 1930).....	21
Figure 9. Portion of a 1953 USGS Schofield Barracks Quadrangle map (USGS 1953).	22
Figure 10. Previous archaeological studies in the vicinity of the project area.	23
Figure 11. Location of features identified by McDermott et al. (2001:Figure 3).....	27
Figure 12. Location of Site 7677 pillars (blue dots) within the project area (red polygon).	32
Figure 13. Plan view map of Site 7677, Camp Andrews pillars.....	33
Figure 14. Site 7677, facing northeast.....	33

TABLES

Table 1. Māhele Data for Nānākuli.....	15
Table 2. Previous Archaeology in Nānākuli.....	24

INTRODUCTION

At the request of CDS International, Keala Pono Archaeological Consulting has prepared an archaeological monitoring plan for construction of the Nānākuli Public Library on a portion of TMK: (1) 8-9-002:065 in Nānākuli Ahupua‘a, Wai‘anae District, on the island of O‘ahu, Hawai‘i. This monitoring plan is designed to identify historic properties that might be exposed during construction, and to treat them properly, in accordance with the State Historic Preservation Division (SHPD) *Rules Governing Standards for Archaeological Monitoring Studies and Reports* (§ 13-279-4). The plan includes background information on the project area and an outline of field methods and post-field actions proposed for the archaeological monitoring. Hawaiian words and flora and fauna are defined in the glossary at the end of the document.

Project and Location

TMK: (1) 8-9-002:065 (por.) is located within the *ahupua‘a* of Nānākuli on the leeward side of O‘ahu (Figures 1 and 2). The parcel is on the *mauka* side of Farrington Highway, which serves as the western property boundary. A canal borders the parcel on the south, and Nānāikapono Elementary School and its driveway are on the north and east. The project area includes 3.675 acres (1.5 ha) of the 15 acre (6.1 ha) property, which is owned by the Department of Land and Natural Resources (DLNR) of the State of Hawai‘i. It is located approximately .09 miles (150 m) from the coast at an elevation of roughly 10 feet (3.1 m) above mean sea level.

The scope of the project is to construct a new 18,000 square foot (.17 ha) public library for the Hawai‘i State Public Library Systems which has been in planning since 1994 (Figure 3). The new library is projected to serve the Nānākuli and Mā‘ili communities along the Wai‘anae coast. The new library must obtain a Leadership in Energy & Environmental Design (LEED) Silver Certification or greater. This is a green building certification that recognizes excellence in building strategies and practices. The Department of Accounting and General Services (DAGS) is requesting the Chapter 6E-8 Historic Properties review on behalf of the Department of Education (DOE) and the Hawai‘i State Public Library System (HSPLS).

Physical Environment

Nānākuli Valley is cut into the Wai‘anae Mountain Range, a heavily eroded shield volcano. Erosion has removed most of the western slope and exposed the internal structure of the volcano. The caldera of the Wai‘anae volcano was located just west of Kolekole Pass, and extended from the northern side of Mākaha Valley to the head of Nānākuli Valley (Macdonald et al. 1983).

Nānākuli Valley is 1.2 miles (1.9 km) wide at its mouth and extends 3.1 miles (5 km) inland, and is part of the Wai‘anae District on the leeward side of O‘ahu (Cordy 2002:77). It is situated between the *ahupua‘a* of Lualualei on the northwest and Honouliuli on the southeast and encompasses a total area of 1,602 acres (648 ha) (Juvik and Juvik 1998:306). Cordy defines the *ahupua‘a* boundaries further:

The south border of Nānākuli is at Nānākuli Point on the shore. Back across the coastal trail (today’s highway), the south ridge of the valley begins and rises to Pu‘u Manawahua. The ridge then meets the main ridgeline of the Wai‘anae mountains, which forms the back of the valley with Mauna Kapu and the light grey cliffs of Palikea at 3,098 feet. The north ridge then heads back toward the sea, forming the north side of the valley. The ridge dips in the back then rises to the high peak called Pu‘u Heleakalā. (Cordy 2002:79)

Similar to the other Wai‘anae valleys, there is a lower valley and an upper valley, which gradually increases in elevation. The valley’s many tributaries are located in the upper portion, all emerging from the ‘Ewa side, and merge in the lower valley. They are intermittent streams that appear to not have run full-time in the past, due to the lack of remains of irrigated fields (Cordy 2002:79).

Situated on the dry coastal plain, the project area receives low rainfall of only 20–30 inches (51–76 cm) per year, and the wind generally comes from the east, over the Ko‘olau and Wai‘anae mountain ranges (Juvik and Juvik 1998:50). Vegetation in the project area consists of *koa haole* and various grasses. Substrates are entirely coral outcrop, shown as CR in Figure 4. Sinkholes are a common feature on coral substrates, formed as water percolates downward and erodes the coral. Mamala stony silty clay loam, 0–12% slopes (MnC) occurs to the north of the project area (Foote et al. 1972).

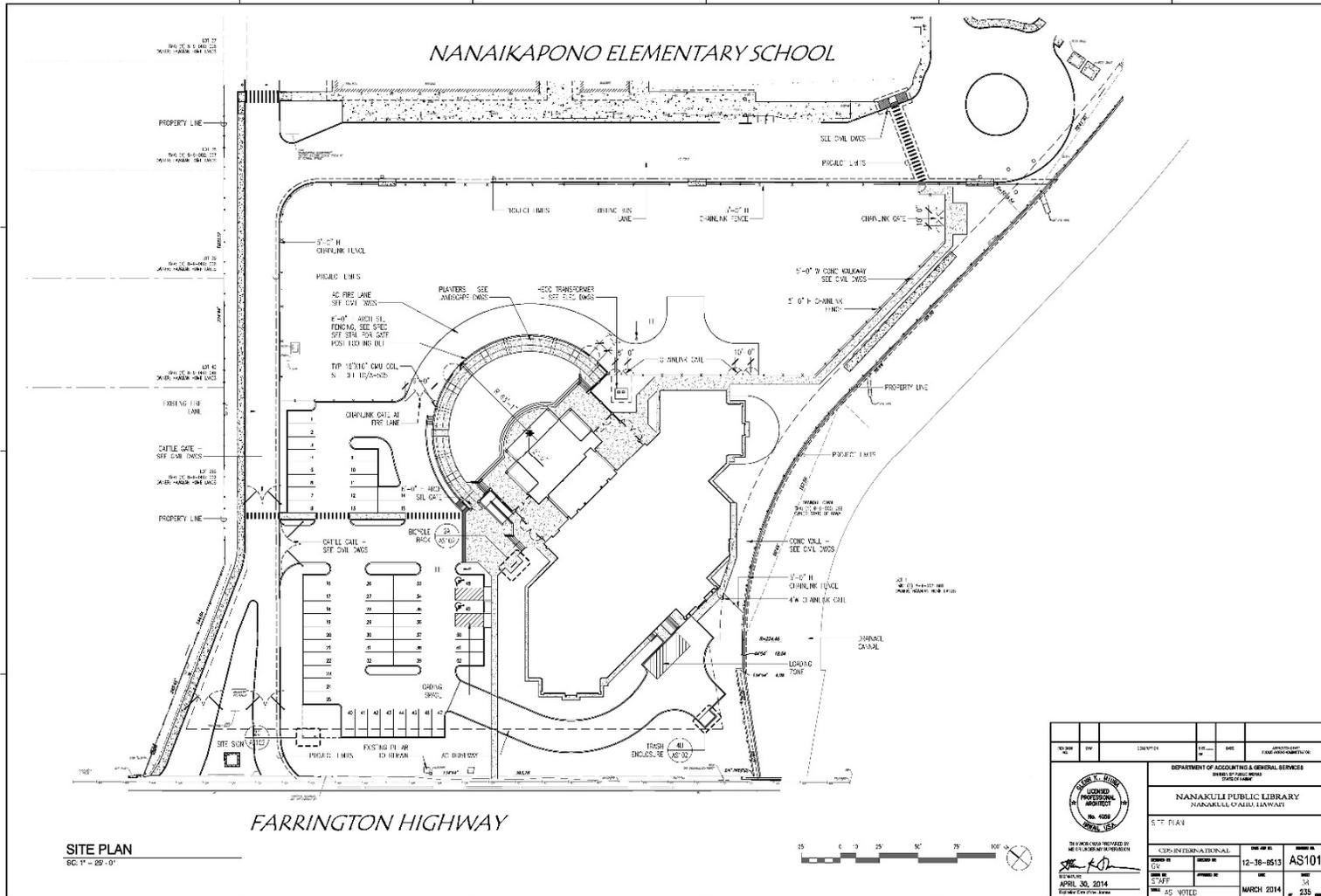


Figure 3. Construction plans for the Nānākuli Library.

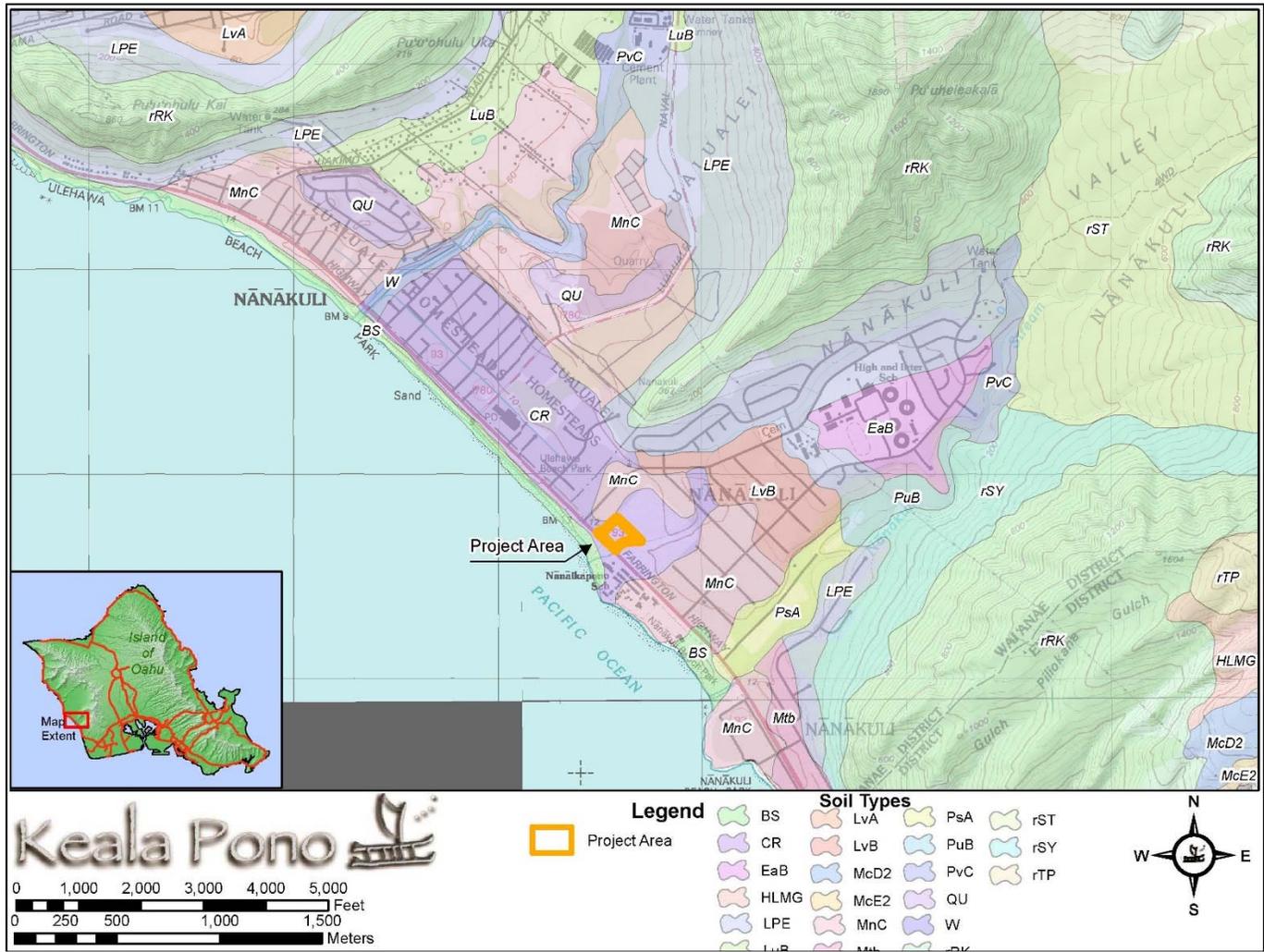


Figure 4. Soils in the vicinity of the project area.

BACKGROUND

This section of the report presents traditional and historic background information for Nānākuli, including place names, Hawaiian proverbs and *mo'olelo*, land use, Māhele land tenure data, and a summary of previous archaeological research.

Inoa 'Āina Nānākuli: Place Names

Nānākuli literally means “look at knee” or “look deaf” (Pukui et al. 1974). There are several stories that attempt to explain the origin of the name.

One *mo'olelo* relates that Nānākuli is named in honor of the tattooed knee of Ka'ōpuluhulu, a priest whose chief, Kahāhana, turned a deaf (*kuli*) ear to his advice (Pukui et al. 1974):

Kahahana dug up bones from their burial places “to make arrows for rat-shooting and hooks for fishing. The bones of chiefs were bartered for skirts for chiefesses and handles for *kāhili*. Ka'ōpuluhulu pleaded with him in vain to stop this disrespectful deed, but Kahahana turned a deaf ear to Ka'ōpuluhulu's pleas. As a sign of protest, Ka'ōpuluhulu, his followers, relatives and members of his household tattooed their knees to signify Kahahana's unwillingness to listen to advice. (Kamakau 1992:133)

Sterling and Summers (1978) share another story based on the “look deaf” translation, as told to noted historian and author Mary Kawena Pukui in 1945 by Simeona Nawa'a:

Simeona Nawa'a came in to the Museum and sat down to talk to me. In the course of the conversation he told me these things:

Nanakuli – It was Kanui, a native woman of Wai'anae who told him why this place was so named. In the olden days, this place was sparsely inhabited because of the scarcity of water. The fishing was good but planting very poor. When it rained, some sweet potatoes would be put into the ground, but the crops were always poor and miserable.

There were a few brackish pools from which they obtained their drinking water and it is only when they went to the upland of Waianae that they were able to get fresh water. They carried the water home in large calabashes hung on mamaka or carrying sticks and used their water very carefully after they got it home. They spent most of their time fishing and most of the fish they caught were dried as gifts for friends and relatives in the upland. Sometimes they carried dried and fresh fish to these people in the upland and in exchange received poi and other vegetable foods. And as often as not, it was the people of the upland who came with their products and when home with fish.

Because of the great scarcity of water and vegetable food, they were ashamed to greet passing strangers. They remained out of sight as much as possible. Sometimes they met people before they were able to hide, so they just looked at the strangers with expressionless faces and acted as though they were stone deaf and did not hear the greeting. This was so that the strangers would not ask for water which they did not have in that locality.

The strangers would go on to other places and mention the peculiar, deaf people who just stared and they would be told that the people were not deaf but ashamed of their inability to be hospitable. So the place they lived was called Nana, or look, and kuli, deaf—that is, Deaf mutes who just look. (Mary Pukui, as told to her by Simeona Nawa'a, March 6, 1945, HEN, p 270. (Nawa'a 1956:2740 in Sterling and Summers 1978:61–62)

Another interpretation comes from an early 20th century resident of Nānākuli, Wm. Z.H. Olepau in 1933 as follows:

There were two women who went up the hill of “PuuHakila” or PuuHela to dry their Kapas. While the kapas were being dried they left and went down the hill to the pool for some water. They heard dogs barking so they stood, looking around for the barking was deafening. (Sterling and Summers 1978:62)

Olepau then explains why Nānākuli may have been named for the knee:

- (1) Women used to go to the top of a hill to dry their kapa, and when they got there, they looked at their knees – nana kuli.
- (2) Royalists of the valley used to sit with their knees up and watch their knees – nana kuli.

W.Z. Olepau, resident of Nanakuli, Mar. 20, 1933. (Sterling and Summers 1978:62)

Another explanation for the “looking at the knees” translation is related to an incident in the travels of the famous O‘ahu chief Kualī‘i. His attendants wished to relieve the king of his fatigue by pressing his knees (Thrum 1922:87).

While many stories attempt to interpret the meaning behind the place name Nānākuli, there are still others that refute that Nānākuli is the correct spelling, and thus the wrong meaning, for the *ahupua‘a*. Fred Cachola and Lehua Kapaku are two Nānākuli residents who share their beliefs with regard to the spelling of the name. In an interview, Cachola explains how he heard about the meaning when he was a school principal at Nānāikapono Elementary, from longtime resident Mrs. Eli:

So she said that the first principal of that school was Reverend Awai and that he knew that the tradition of that area, Nānākuli, had a Hawaiian hidden meaning which she told me was “Nānā-i-ka-ule.” I was kind of smiling. And she said, “Yeah, because that’s how in the old days this place was known for promiscuity. It got this name from ancient times. And it might have something to do with the mountain range.” Look at your map. Look at your map. The one that you were showing me. Because you can see the *ule* over there. See? There it is. See the testicles over here, and the penis sticking out there. So it could be [in] reference to that... And, that’s one interpretation of the name. And, it’s very Hawaiian. To me, it’s a very Hawaiian thing, very Hawaiian. (McGuire and Hammatt 2000:9)

In another interview, Lehua Kapaku, a resident of Nānākuli since 1960, shared a different story:

The Māui legend names off the various places this side of O‘ahu. Māui had so many brothers and he had two sisters. One was Lualualei and [the other was] his baby sister whom he treasured. The baby sister’s name was Nānāku‘ulei [which means] *look to my pretty lei*. To have the name “Lualualei” which is *sacred wreath*, and, then having a baby sister [whose name means] *looking deaf*, I just didn’t agree. I wasn’t satisfied with that. So, I accepted the Māui legend part where his baby sister was Nānāku‘ulei... This is the only place in the whole State to have a derogatory name, *look deaf*. You look at any other place, they have nice names... Only Nānākuli. So, it may have been a misprint... (McGuire and Hammatt 2000:13)

A major landmark in Nānākuli is Pu‘u Heleakalā, a hill located on the northwestern side of the valley. Not to be confused with the famous “Haleakalā” on Maui, Heleakalā translates to “snare by the sun,” for the *pu‘u* blocks the rays of the sun as it sets (Pukui et al. 1974:44). Pukui offers further insight into the name:

Heleakala Hill

A barren hill in Nanakuli, Waianae. Sometimes called Haleakala which Mrs. Pukui believes is probably wrong.

Hele – snare
a – belonging to
kala – sun

Heleakala meaning, where the sun is snared. This hill faces right into the setting sun and reference is made as to this place being ‘where the sun’s rays are broken.’ (Pukui 1953 in Sterling and Summers 1978:62)

The *pu‘u* is also described in the following historic account, originally printed in the Hawaiian language newspaper *Nupepa Kuokoa*:

...It wasn’t long when we arrived at Nānākuli and then to a place which bears a peculiar name, said to be the one on which the rays of the sun was broken. This is a barren hill as though plants hated all of its sides. I saw the cave in which Hina made tapa cloths on the slope of a hill facing a stream whose mouth was at a place with a peculiar name. (Kuokoa 1899 in Sterling and Summers 1978:62)

Other peaks include Pu‘u Manawahua, Mauna Kapu, and Palikea toward the back of the valley. Pu‘u Manawahua is 2,401 feet (732 m) high, and the name means “great grief hill” or “nausea hill” (Pukui et al. 1974:202). Mauna Kapu separates the Nānākuli and Honouliuli Forest Reserves and can be translated as “sacred mountain” (Pukui et al. 1974:148). Palikea rises 3,098 feet (944 m) high on the Lualualei side of Nānākuli. The name translates to “white cliff” (Pukui et al. 1974:177).

Nānākuli Beach Park is a recent name given by the City and County of Honolulu to the stretch of coastline including Pili o Kahe, Zablan Beach, and Kalaniana‘ole Beach. On the south end of the park is Pili o Kahe, which translates to “clinging to Kahe” (Pukui et al. 1974:185). Next to Pili o Kahe is Zablan Beach, named for a family who is connected with the area (Clark 1977:84). On the north end of the park is Kalaniana‘ole Beach, named after Prince Jonah Kūhiō Kalaniana‘ole, who created the Hawaiian Homes Commission Act of 1920. The beach was given the name in 1940 at the request of the Nānākuli homestead community.

Nānākuli ‘Ōlelo No‘eau and Mo‘olelo

‘Ōlelo no‘eau and mo‘olelo offer insight into what life may have been like in Nānākuli in ancient Hawai‘i. They also share topics of interest of the time that were meant to be passed down from one generation to the next.

‘Ōlelo No‘eau

Whereas no *‘ōlelo no‘eau* were found specifically for Nānākuli, the following sayings relating to the greater Wai‘anae District paint a picture of the region in times past. They describe a mountain goddess, a coconut grove, and also politics and power of the land.

He lokomaika‘i ka manu o Kaiona.

Kind is the bird of Kaiona.

Said of one who helps a lost person find his way home. The goddess Kaiona, who lived the Wai‘anae Mountains of O‘ahu, was said to have pet birds who could guide anyone lost in the forest back to his companion.

(Pukui 1983:85)

Ka wahine hele lā o Kaiona, alualu wai li‘ulā o ke kaha pua ‘ōhai.

The woman, Kaiona, who travels in the sunshine pursuing the mirage of the place where the ‘ōhai blossoms grow.

Kaiona was a goddess of Ka‘ala and the Wai‘anae Mountains. She was a kind person who helped anyone who lost his way in the mountains by sending a bird, a *‘iwa*, to guide the lost one out of the forest. In modern times Princess Bernice Pauahi was compared to Kaiona in songs.

(Pukui 1983:177)

E nui ke aho, e ku‘u keiki, a moe i ke kai, no ke kai la ho‘i ka ‘āina.

Take a deep breath, my son, and lay yourself in the sea, for then the land shall belong to the sea.

Uttered by the priest Ka'opulupulu at Wai'anae. Weary with the cruelty and injustice of Kahāhana, chief of O'ahu, Ka'opulupulu walked with his son to Wai'anae, where he told his son to throw himself into the sea. The boy obeyed, and there died. Ka'opulupulu was later slain and taken to Waikīkī where he was laid on the sacrificial altar at Helumoa.
(Pukui 1983:44)

Ka malu niu o Pōkā'i.

The coco-palm shade of Pōkā'i.

Refers to Wai'anae, on O'ahu. At Pōkā'i was the largest and best-known coconut grove on O'ahu, famed in chants and songs.

(Pukui 1983:160)

Kapakahi ka lā ma Wai'anae.

Lopsided is the sun at Wai'anae.

Used to refer to anything lopsided, crooked, or not right. First uttered by Hi'iaka in a rebuke to Lohi'au and Wahine'ōma'o for talking when she had warned them not to.

(Pukui 1983:164)

Malolo kai e! Malolo kai!

Tide is not high! Tide is not high!

Said of a threatening disaster. Robbers once lived at a place in Wai'anae now known as Malolo-kai. Their spies watched for travelers to kill and rob. When there were only a few that could be easily overcome, the spies cried, "Low tide!" which meant disaster for the travelers. But if there were too many to attack, the cry was "High tide!"

(Pukui 1983:232)

Ola Wai'anae i ka makani Kaiaulu.

Wai'anae is made comfortable by the Kaiaulu breeze.

Chanted by Hi'iaka at Ka'ena, O'ahu, after her return from Kaua'i.

(Pukui 1983:272)

Mo'olelo

From the following *mo'olelo* about fishing, we can learn what the social and political life may have been like in pre-contact in Nānākuli.

In the time when Kahekili, ruler of Maui ruled Oahu, after the battle with Kahahana, his own nephew, there lived a man at Nanakuli, Waianae, island of Oahu. He was a man that never thought of nor kept any of the gods of old Hawaii. He was ungodly lazy, poor and simply lived on the charity of his host.

One night, he had a dream. A small stone image spoke to him saying, "Say! Say! Wake up you and come and get me. I am dying of cold where I am. Come and get me. There I am, placed by the small heap of rocks placed on the ridge." The man awoke with a start and found that it was a dream. He thought nothing of this thing, this worthless idea of a stone speaking and fell off to sleep again. After he had fallen asleep again, the stone image bestirred him. He awoke and went where the stone had instructed him. When he got there, he found the stone, carried it home, washed it clean and kept it.

The next night, the stone told that there are visitors at the shore, a school of fish and that he should fetch nets and a canoe. The man looked around and said that he couldn't get any fish because he lacked a canoe and nets. Therefore, he went to speak to the konohiki of the land, "I have been told that there are visitors to the shore. It will be well to get the nets and canoes ready to go to sea."

The konohiki of the land made ready with nets and canoes and set out to sea. On this trip, there were so much fish caught that a stench rose up on the shore. People went from Ewa, Waianae and Waialua to

get some fish but the supply was inexhaustible. The fish kept coming to the same place for several days. When the fish came the keeper of the stone god took one fish and gave it to him because he was told to do so in a dream. Whenever fish was caught, one should be given to him. The keeper did so.

He became a great favorite of the konohiki's and received property, fish nets, canoe and land, such wealth as he have never seen before. The konohiki continued caring for him and they shared their wealth together for a long time.

One day some keepers of gods discovered the man had a stone and so some of them, from Ewa, came and carried it away. The spirit of that stone image went to his keeper to tell him where he had been taken, the land and the house in which it was placed. Then its keeper went and found it in the very place that the stone image described...

(signed) D. Kalakaua

(Kalakaua Ms.:241 in Sterling and Summers 1978:63)

The legendary hero Maui, a significant figure in Hawaiian *mo'olelo*, is associated with several places in Nānākūli, including a rock, a shelter, and a spring:

Site 148. Large rock said to be named Maui, about 1.1 mile from Nanakuli station toward Puu o Hulu.

Northeast of the road on the property of E.P. Fogarty is a rock said to be named after the Hawaiian hero, Maui who is said to have landed here when he first came to the Hawaiian islands from the south. This stone at the time was surrounded by water, and it was here that Maui reposed and sunned himself. In the bluff just northeast of the rock is a shelter in which he lived, and in the vicinity was a spring where he obtained water. The large rock is now split in half and adorned with many small, oddly-shaped rocks. It is said to be bad fortune to build one's house across a line drawn directly from the rock to the shore. J.J. Mathews is said to have collected detailed information in regard to this site. (McAllister 1933:110)

Power and Warfare in Wai'anae

For centuries, O'ahu chiefs competed against one another for power on O'ahu and the other islands. In the 1400s, the Māweke-Kumuhonua line unified O'ahu's rule, Līhu'e (also known as Wai'anae Uka) was the royal center, and oral histories portray this time as peaceful and prosperous. Of the Māweke line, La'akona, who lived in 'Ewa and controlled Wai'anae, reigned until Haka, an evil ruler, assumed power between 1520 and 1540. He was later captured and slain somewhere between the valleys of Mākaha and Wai'anae (Cordy 2002:26).

In the 1600s and 1700s, population grew on O'ahu and the island was ruled under Kala'imaniua (1600–1620), Kākuihewa (1640–1660), Kualī'i (1720–1740), and Peleioholani (1740–1779). Power declined and was built back up several times among these rulers, but by 1778 the Kingdom included Moloka'i, O'ahu, and portions of Kaua'i (Cordy 2002:32).

In 1783 Maui invaded O'ahu after Maui's ruler Kahekili tricked O'ahu's chief Kahāhana into killing his high priest. This was a significant turn of events, as the high priest, Ka'ōpūlupulu, controlled the Waimea-Pūpūkea area on O'ahu's North Shore, including the large *heiau* Pu'u o Mahuka in Pūpūkea and Kunaiwa in Wai'anae (Cordy 2002:37). The O'ahu army was defeated and Kahāhana was caught and killed in 1785. In response, Kahāhana's supporters revolted, but with many losses in 'Ewa, they pulled back to the valleys of Wai'anae where many more were killed. The Maui Kingdom ruled O'ahu for ten years under Kahekili and his son Kalanikūpule until they were defeated by Kamehameha's Hawai'i Kingdom army in 1795.

Land Use and Subsistence

The Wai‘anae coast was one of three dry areas on the island of O‘ahu (Handy et al. 1972). Due to low rainfall and intermittent streams, there were not many options for agriculture. Sweet potato, or ‘uala (*Ipomoea batatas*), was the staple crop, planted throughout the dry slopes of the Wai‘anae region (Handy 1940:156). Throughout the district, a pattern of small coastal villages with farms in the upper valleys was likely the norm (Cordy 2002). The seas fronting the district were prime fishing grounds, thus fishing and sweet potato cultivation were the main subsistence activities:

Undoubtedly there were also small settlements subsisting mainly on sweet potato, in the valleys where constant streams were lacking (Nanakuli and Makua). Along this coast the fishing is excellent. In famine times, then, there was reef fishing, and the Wai‘anae Mountains had wild banana, *ti*, fern, and other roots that were edible...(Handy et al. 1972:275–276)

Handy (1940) describes a broken platform, pavings, and a house site in Nānākuli, indicating traditional habitation along the stream. Handy also talked with a rancher, however, who stated that “there are no terrace remains anywhere in Nanakuli valley, nor any available water for irrigation, except at the very head of the valley’s head, far up the mountains” (Handy 1940:83). The rancher also mentioned that at the top of the valley there are abandoned terraces, platforms, and orange trees that mark habitation sites.

We know much of Wai‘anae’s cultural history through John Papa ‘Ī‘ī’s series of articles in the Hawaiian newspaper *Ka Nupepa Ku‘oko‘a*. ‘Ī‘ī was born in 1800 and died in 1870, and his writing was translated by Mary Kawena Pukui in 1959 in a book titled *Fragments of Hawaiian History*. Below are entries that detail his experiences while visiting relatives in Nānākuli:

Ii’s aunt on his father’s side, Kaneiakama, came from Waianae with her husband Paakonia. They visited the family’s houses to rest a while before continuing on to Honolulu to their landlord. These people, who were bracelet-makers and residents of that land of the foamy sea, were well known. They were of chiefly stock and were privileged to place their bundles with those of the chiefs. Their landlord, Pahoā, was in charge of Ka‘ahumanu’s extensive lands, granted her by her husband, Kamehemeha; and there were very few *ahupua‘a* in which she did not have a portion, for she was a great favorite of the king. Ka‘ahumanu was fond of Kaneiakama and admired her skill in composing chants. Because of this, perhaps, the land at Waianae was given to Kaneiakama and her husband. (Ii 1993:26)

There were three such journeys, one by way of Pohakea, one through Kolekole, and one by a route below Puu o Kapolei. On the first two trips they went to Pahoauka, where his aunt and uncle lived. (Ii 1993:27)

Ii was eight or nine years old when he was again seized by a desire to go to visit his aunt Kaneiakama, and he was given permission to do so. He had heard that his aunt was at Nanakuli, so he and his attendant departed by way of Puu o Kapolei to Waimanalo and on to Nanakuli. There he found his aunt and her husband who were in charge of the fishing.” (Ii 1993:29)

During his visit Ii observed how the children of Nanakuli produced a long quavering sound while chanting. This was performed while the children sat on the branches of the breadfruit trees. They sat apart from each other on branches from the base to the top, chanting. When the boy listened carefully to the long, drawn out sound, he could distinguish the words that they were chanting. He asked his aunt to let him join the children, and he quickly saw how the quavery sound was produced. He noted that one of the boys held up two fingers on his right hand and tapped his throat in order to make the quaver. Ii learned the chant at once. This is the chant that they were using:

Kau koli‘i ka la i luna o Maunaloa,
E ke ao e lele koa,
Halulu i ka mauna

Kikaha ke kuahiwi o Kona he la‘i,
 Ku papu Hilo i ka ua.
 Paliloa Hamakua,
 ‘Ope‘ope Kohala i ka makani,
 Huki Kauiki pa i ka lani, etc. [sic]
 The sun sends a streak of light on Maunaloa,
 The clouds go scurrying by,
 There is a rumble on the mountain top
 That echoes from the mountain of Kona, the calm.
 Hilo stands directly in the rain. Hamakua’s cliffs are tall,
 Kohala is buffeted by the wind,
 Kauiki reaches and touches the sky, etc.

This was memorized by all and was chanted in perfect unison, and the boy noticed how pleasing it was. Thus did Ii enjoy himself with the children of Nanakuli, and he continued to spend his spare time with them. (Ii 1993:29)

Heiau

‘Ilihune Heiau was a noted religious structure in Nānākuli. Nothing of it remains today, however, as many *heiau* were used as cattle pens, and rocks were moved during the time of ranching. The scant information known for the *heiau* is as follows:

Ahupuaa: Nanakuli
 “poor, destitute”

Comments: Site 147. Approximate site of Ilihune heiau, Nanakuli, of which nothing remains. Thrum notes: A small walled heiau of pookanaka class; used about 1860 by Frank Manini as a cattle pen, for which natives prophesied his poverty and death.” (McAllister 1933:110)

On the night of Po Kane there are some who hear a voice of a child calling e------. This voice trails off and ends up at a place called a heiau by some – a cattle pen by others. (Mrs. Annie Soong, Nov. 1954 in Sterling and Summers 1978:62)

Archaeological research has found a small shrine in the upper valley, but it is hard to determine if there were others due to the disturbance of the ruins (Cordy 2002:84). Another *heiau* overlooking Nānākuli includes one from Honouliuli Ahupua‘a:

Puu Kuaa Heiau

pu‘u ku‘ua. PEM: relinquished hill. Honouliuli Ahupua‘a

“Site 137. Puu Kuaa heiau, Palikea, Honouliuli. The heiau was located on the ridge overlooking Nanakuli, as well as Honouliuli, at the approximate height of 1800 feet. [This is far from Palikea as currently identified.] Most of the stones of the heiau were used for a cattle pen... That portion of the *heiau* which has not been cleared for pineapples has been planted in ironwoods.” Coordinates at 1800 ft. elevation. (McAllister 1933:108)

Nānākuli in the Historic Period

In the late 1700s to early 1800s, foreigners and locals provided written accounts of visits and descriptions of what life was like during this period. One of the earliest accounts of the area is from 1798 when George Vancouver sailed along the Wai‘anae coast and described what he saw:

From these shores we were visited by some of the natives, in the most wretched canoes I had ever yet seen amongst the South-Sea islanders; they corresponded however with the appearance of the country, which from the commencement of the high land to the wet land of Opooroah, was composed of one

barren rocky waste, nearly destitute of verdure, cultivation, or inhabitants, with little variation all the way to the west point of the island. Not far from the s.w. point is a small grove of shabby cocoanut trees, and along those shores are a few straggling fishermen's huts. Nearly in the middle of the side of the island is the only village we had seen westward from Opooroah. In its neighborhood the bases of the mountains retire further from the sea-shore, and a narrow valley, presenting a fertile cultivated aspect, seemed to separate the wind distance through the hills. The shore here forms a small sandy bay. On its southern side, between the two rocky precipices, in a grove of cocoanut trees is situated the village... The few inhabitants who visited us from the village, earnestly intreated our anchoring, and told us, that if we would stay until morning, their chief would be on board with a number of hogs, and a great quantity of vegetables. (Vancouver 1967:217)

In the early 1800s, John Papa ʻĪʻĪ visited his aunt in Nānākuli, describing in little detail that ʻulu trees were present and fishing was taking place. There were also reports in 1818 by Hunnewell and 1828 by Chamberlain that there were a number of villages in the area (Cordy 2002:80).

In the early 1800s, many chiefs in Waiʻanae had their people go to the mountains to gather sandalwood, an item in high demand for trade with foreigners (Cordy 2002:41). This new effort changed the traditional way of life, and may have contributed to population decline during this time. By the mid to late 1800s, much of the land was leased for ranching purposes.

In the *1880 Hawaiian Kingdom Statistical and Commercial Directory and Tourist's Guide*, a writer describes his visit to Nānākuli, observing that much of the land was being used for grazing:

Leaving Waianae, a ride of about two miles brought me to the Lualualei Valley, another romantic place opening to the sea and surrounded in every other direction by high mountains. This valle is occupied as a grazing farm by Messrs. Dowsett & Galbraith, who lease some sixteen thousand acres from the Crown. Its dimensions do not differ materially from those of the Waianae Valley, except that it is broader—say, two miles in width by a length of six or seven miles. The hills which inclose [sic] it, however, are not so precipitous as thos at Waianae, and have, therefore, more grazing land on their lower slopes, a circumstance which adds greatly to the value of the property as a stock farm. Although only occupied for grazing purposes at present, there is nothing in the nature of the soil to prevent the cultivation of the sugar cane, Indian corn, etc. Arrangements for irrigation, however, will be a necessary preliminary to cultivation.

From the Lualualei Valley to the Nanakuli Valley I had a rather dreary ride of three miles. The intervening country towards the sea is barren, with a little pasturage at the base of the mountains. The track, however, is in very good order, much better than I expected to find it, looking to the mountainous and rocky character of the country through which it passes. At Nanakuli and Hoaeae, close adjoining, the Messrs. Robinson have cattle ranches. The pasture here cannot be compared with that in the valleys I had just left behind, but inland among the mountain ranges it is much better. This, indeed, is a characteristic of the ranges throughout the island.

During my journey along the western coast of this island, where the road is generally so much more fatiguing to the traveler than that of the windward side, I have often pulled up to give both horse and rider a spell, whilst I entered into a chat with some group of natives whom I have fallen in with, or those whose hamlets I have been passing at the time. More than once, too, I have passed the night at their houses. I have always found them very sociable and thoroughly hospitable....(Bowser 1881:493-494)

Handy's *The Hawaiian Planter*, published in 1940, gives further description of Nānākuli in the late 1800s, including an account from a rancher who had been living and working there for 50 years:

On the south side of the stream, about a quarter of a mile inland from the main coastal road, there is a broken platform (Paepae) built of small rocks with apparently a small paved area below, close to the stream bed. Extending inland along the south bank of the stream bed for about 75 yards there is a rough

stone facing from 1 to 2 feet high in general level along the top. This might be judged to be a terrace area were it not that the ground behind the stone facing is not level; however, that might be due to washing out when the stream was in flood. According to Ernest Rankin, a rancher in this and other valleys for years past and now living on a homestead on the ridge north and above this site, the stonework just described was not terracing for taro patches but was built by a man named Whitney 40 years ago when he located a house and cattle shelter at that point. Behind the terrace there are six large old monkeypod trees, indicating earlier habitation. On the north side of the stream at this point, there is a fairly recent habitation site, with several large trees, also papayas and traces of sugar cane plantings. Nearby are a tiny stone paving and the remains of an old Hawaiian house.

According to Rankin there are no terrace remains anywhere in Nanakuli valley, nor any available water for irrigation, except at the very head of the valley's head, far up in the mountains. High in the small gulches at the valley's head there are some abandoned terraces, stone platforms, and orange trees marking the sites of ancient Hawaiian habitations. But as long ago as 1890 when Rankin first frequented the valley as a cowboy, there was not one Hawaiian living there. (Handy 1940:83)

Māhele Land Tenure and Historic Land Use

From 1848 through 1855, the Māhele divided and privatized the land across the islands, and the entire Wai‘anae District, aside from Mākaha, was designated as Crown Land. At this time the area was sparsely populated by Hawaiians. For example, only five Māhele land claims were made for all of Nānākuli (LCA 830, 833, 846, 7455, and 8153), and none were awarded (Table 1). The Nānākuli claims mention a *muliwai* and pond in addition to house lots and agricultural plots in *kula* lands and *wauke* plantations in the uplands. It is not clear exactly where the LCAs were located, although Berdy et al. (2002:10) surmise that they were situated in the upper valley where permanent habitation sites have been found. Only a small population of roughly 50 individuals lived in coastal Nānākuli during the mid-1800s (Cordy 1997). By 1881 there were just four Nānākuli residents listed in the Hawaiian Island Directory (Cordy 1997).

Table 1. Māhele Data for Nānākuli

LCA	Claimant	'Ili	Awarded	Description
830	Mahiki		No	3 'āpana, 1 house lot, cairns, streams
833	Kahaanui	Kaape	No	4 'āpana, 1 house lot, cairns, streams
846	Awa		No	5 'āpana, 1 house lot, streams
7455	Kuluahi	Hapai	No	1 'āpana, 1 <i>kula</i> , 1 house lot, <i>wauke</i> , <i>muliwai</i> , pond
8153	Haulula	Kuamokahi	No	1 'āpana, 1 <i>kula</i> , 1 house lot, <i>wauke</i> , 'uala

The Waianae Sugar Plantation was founded in 1878 by H.A. Widemann, and the leeward community grew substantially. During the 1890s the O‘ahu Railway and Land Co. (O.R.&L.) railroad was constructed to bring crops and animals from the Leeward Coast to Pearl Harbor. This railway would eventually run through all of the Wai‘anae District and around Ka‘ena Point to Kahuku. Vestiges of the old rail line can still be seen along Farrington Highway.

After the overthrow of the monarchy in 1893, the Crown Lands were combined with the Government Lands. In 1898, when Hawai‘i became a U.S. Territory, all lands combined were ceded to the United States. It was not until the passage of the 1920 Hawaiian Homes Commission Act that the ceded lands (roughly 188,000 acres) were set aside to benefit Native Hawaiians (Juvik and Juvik, 1998:228). Following this, Native Hawaiian homesteading in Nānākuli ensued, with 241 lots for applicants to choose from. The establishment of the Nānākuli Hawaiian homestead community is described below:

Among the areas designated as Hawaiian homesteads was a hot, stickery portion of Nānākuli. By 1929 this land had been divided into house lots and plans were underway to bring in homesteaders. From the beginning, there was criticism of the project. Frederick Ohrt, manager of the Water Board in Honolulu, said there wasn't enough water in Nānākuli to supply the homesteaders (McGrath et al. 1973:111).

In the early 1900s, a series of parcels were sold in nearby Lualualei, classified as pastoral lands because of the dearth of water. Roughly 40 families settled on the smaller lots, while families such as the Von Holts, McCandlesses, and Dowsetts laid claim to the large parcels there.

In March 1917, 31.36 acres within Nānākuli were set aside as a U.S. military reservation which was designated as Camp Andrews in 1941. A 1943 article in *Paradise of the Pacific* explains how Camp Andrews, an overnight rest and recreation center, was the answer to relaxation for “fighting men” of the time and had cabins and picnic benches (Allen 1999).

The answer to this problem was construction of a camp accessible to railroad and highway transportation. Camp Andrews resulted—a peaceful haven where there is no routine, no reveille, and where a thousand men and fifty officers can rest after returning from the bloody shambles of the Southwest Pacific.

Camp Andrews... is located at Nanakuli on the south-western shore of Oahu, twenty-six miles from “Pearl.” It had been established early in 1941 by the Hawaiian Detachment but in December of that year it was turned over to Commander Hickey. Dances and USO shows help provide fun for the men during their “away from it all” two days at Camp Andrews. (*Paradise of the Pacific* 1943)

Sugarcane production and military activity dominated the first half of the 20th century on the Leeward Coast. World War II was devastating for the Waianae Sugar Plantation as high paying defense jobs created a labor shortage. All sugarcane production in the Wai‘anae District was eliminated during the 1940s due to labor shortages, water shortages, military procurement of land, and other more productive agricultural regions taking over. The O.R.&L. railway was officially abandoned in 1946.

During World War II, concrete bunkers, pill-boxes and gun emplacements were built along the Leeward Coast. Many of these concrete features are still present today. At times as many as 20,000 troops were training in the Wai‘anae District. McGrath et al. write, “American troops caused more destruction on the Waianae coast than the Japanese” (1973:135–136).

Historic Maps

The earliest map found for Nānākuli is an 1854 Government Survey map (Figure 5). Few details are depicted, but the coastline and mountains can be seen, and two points on the mountains are labeled. “HALEMANU” is on the northwest, and “GREEN HILL” is on the southeast. The expanse to the east of Green Hill is labeled as “J. MEEK’S LAND.” The coastal road is shown, and an old house is illustrated along the shore.

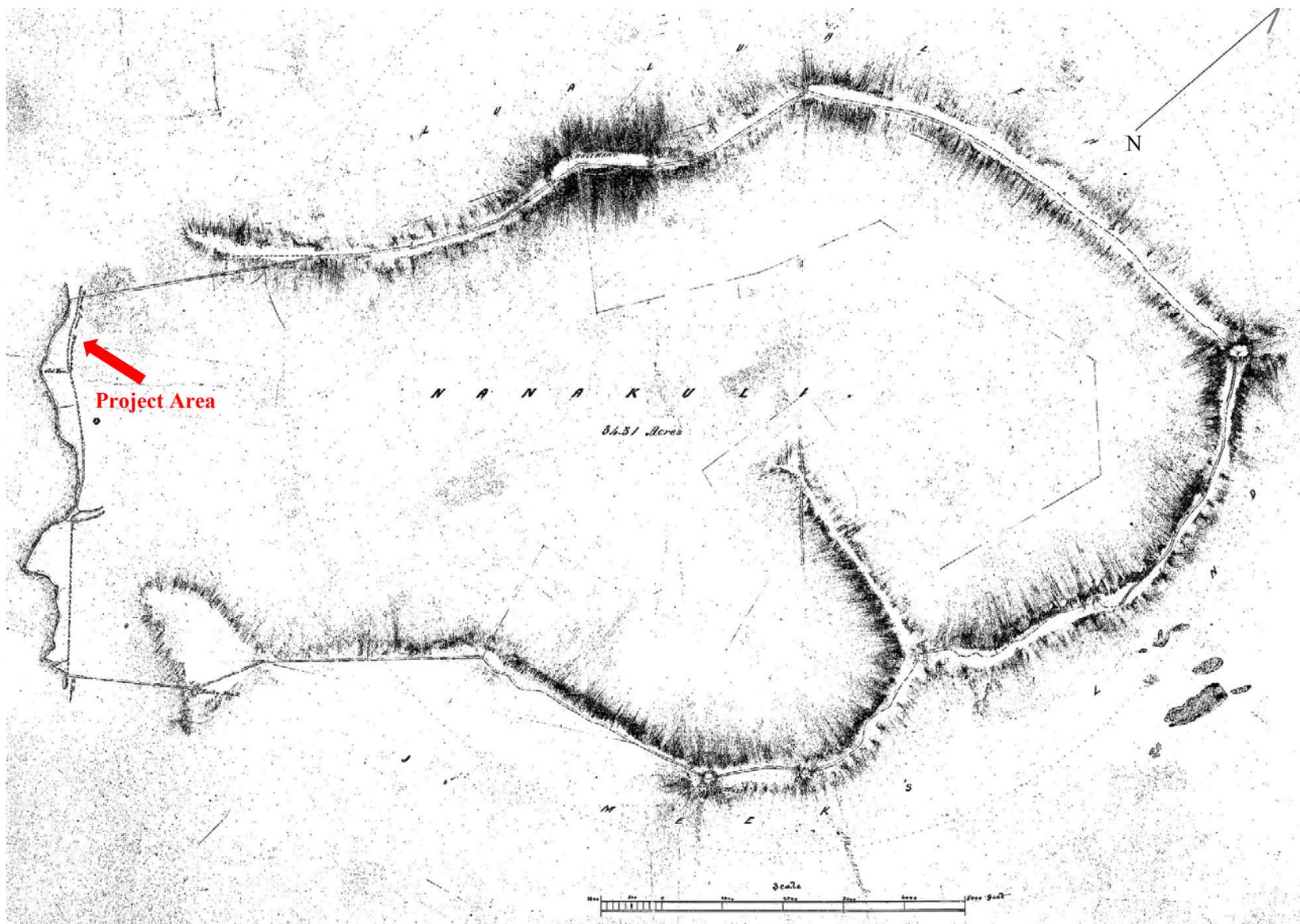


Figure 5. Portion of an 1854 Hawaiian Government Survey map (Webster 1854).

A 1912 Hawaii Territory survey map shows the Nānākuli region in more detail (Figure 6). Several places are named, such as Heleakalā and Manawahua Peaks. Two points half way up the valley are labeled “end of fence,” indicating that a fenceline once stood there. Nānākuli Cemetery is shown adjacent to Haleakalā Avenue, and a “Tank, Pump, and Tunnel Site” are illustrated to the east. An electric transmission line crosses the valley, and the military reservation is shown near the coast. Also along the shoreline are the Government Road, O.R.&L. railroad track, a park, and an area of standing water.

A 1925 Hawaii Territory survey map depicts the 1,101-acre Nānākuli Forest Reserve and surrounding area (Figure 7). Places labeled on the mountains surrounding Nānākuli include Heleakalā Peak, Palikea, Pōhākea, Maunakapu, and Manawahua. The coastal road and shoreline are illustrated, but no other details are shown in Nānākuli.

By 1930, Nānākuli is illustrated as a large community with many residences (Figure 8). A Hawaiian Homelands map shows the Nānākuli subdivision much as it stands today. A feature that appears to be a rock wall runs across the military reservation. Nānākuli Beach Park is depicted with a flooded area near the current highway. Just *makai* of the highway was an “Old Road” and the O.R.&L. railway.

A 1953 USGS map also depicts a modern Nānākuli community (Figure 9). Additions include water tanks at the coast and farther inland, as well as a pipeline and quarry *mauka* of the subdivision. A jeep trail extends the length of the valley into the forest reserve, and the Palikea Trail runs along the ridge.

Previous Archaeology

Many archaeological projects have been carried out in Nānākuli (Table 2). The following paragraphs summarize the most relevant studies which lie in the vicinity of the project area. Their locations are illustrated in Figure 10. This is followed by a timeline of the archaeological work conducted on the subject parcel.

Archaeological Projects in Nānākuli

The first archaeological work in Nānākuli was done by J.G. McAllister from 1929 to 1930, as part of an island-wide archaeological survey on O‘ahu. He identified one site, ‘Ilihune Heiau, Site 147, near the mouth of the valley, of which he noted that nothing remained (see *Heiau* section).

An archaeological inventory survey of a property to the northeast identified portions of the two sites located on the subject property (Site 50-80-07-5946 and -5947) (Berdy 2002). The boundaries were extended for Site 5946, the remains of Camp Andrews. They now include a concrete pad and fence line in the *makai* portion of TMK: (1) 8-9-002:001. Several sinkholes were also identified on the parcel, part of Site 5047. An archaeological monitoring plan was written (Chaffee and Dega 2009) and the monitoring produced no findings (McElroy and Hitt 2014).

Three archaeological monitoring projects were conducted along Farrington Highway, *makai* of the subject property. In 2005, five charcoal deposits were found during monitoring, but none were given site numbers (Ostroff and Desilets 2005). The closest deposit to the current project area was near Ulehawa Beach Park in Lualualei. A year later, archaeological monitoring conducted for fiber optic installation along much of the same route produced no cultural material or deposits (Souza and Hammatt 2006). A literature review and field inspection were completed for a portion of the same highway corridor (Altizer et al. 2011). Three cultural resources were identified, including a portion of the old O.R.&L. railroad track (Site 50-80-12-9714); an historic section of Farrington Highway (Site 50-80-7-6824); and the subsurface deposits previously recorded by Ostroff and Desilets (2005).

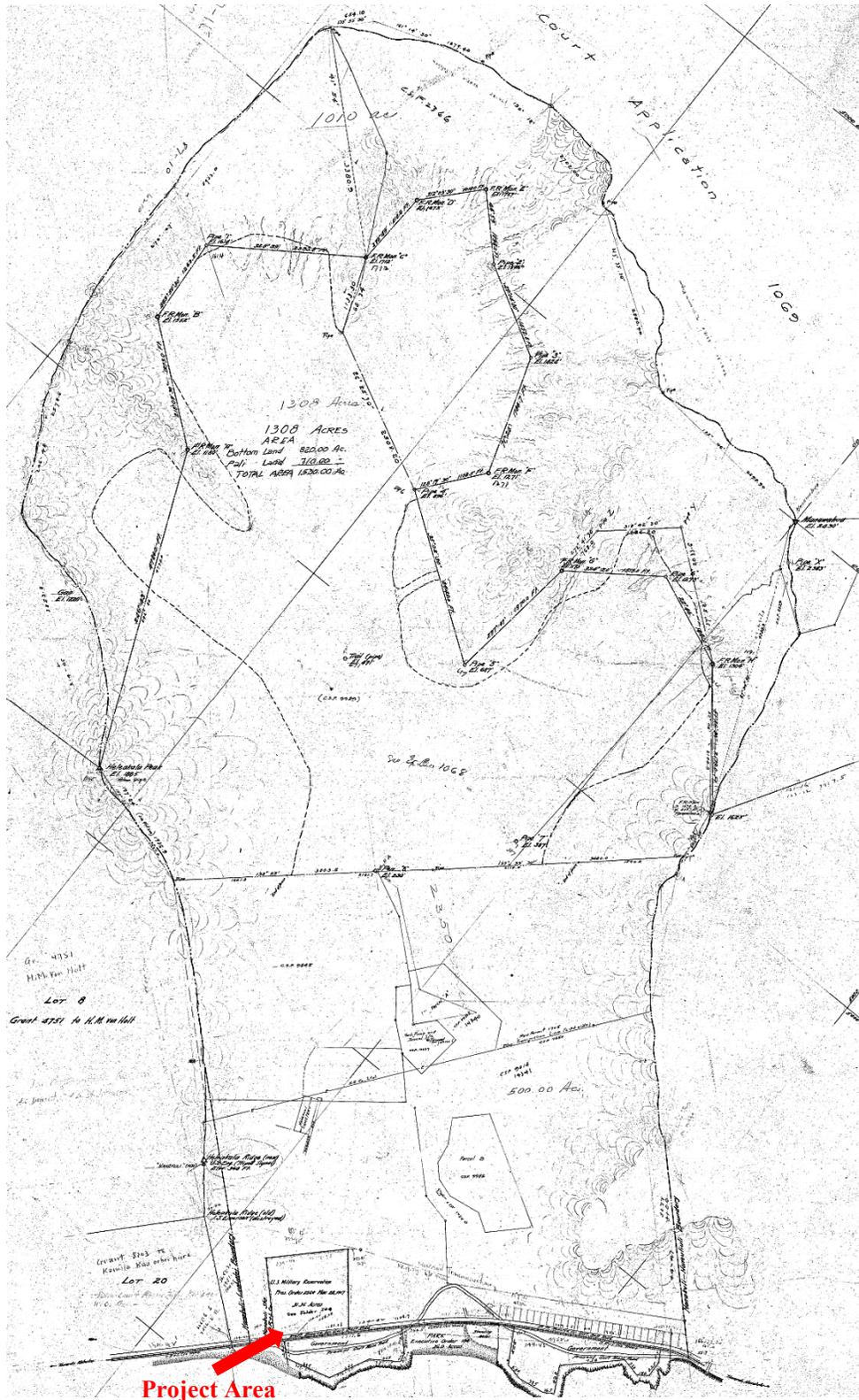


Figure 6. Portion of 1912 Hawai'i Territory Survey Map (Newton 1912).

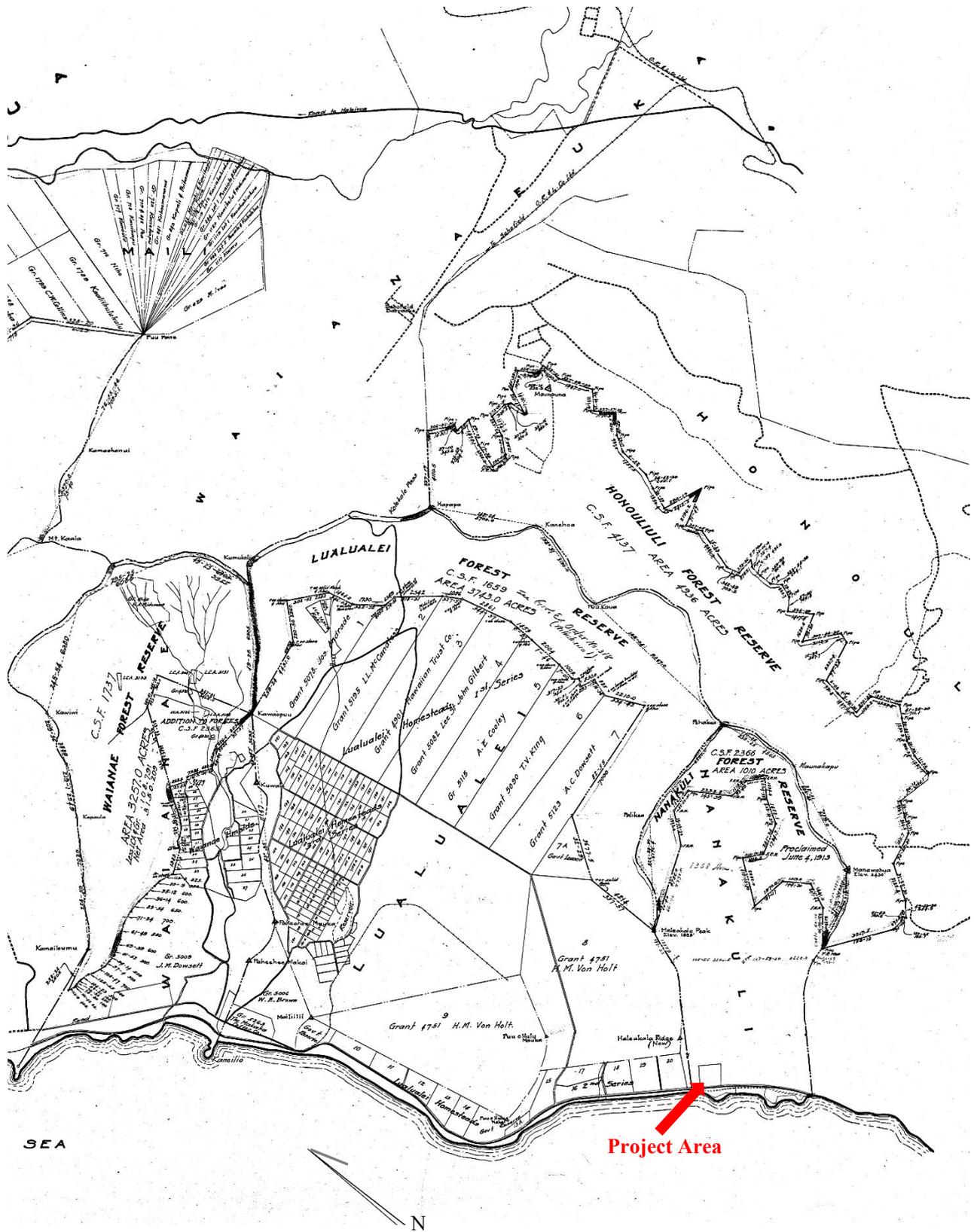


Figure 7. Portion of a 1925 Hawaii Territory Survey map (Wall 1925).

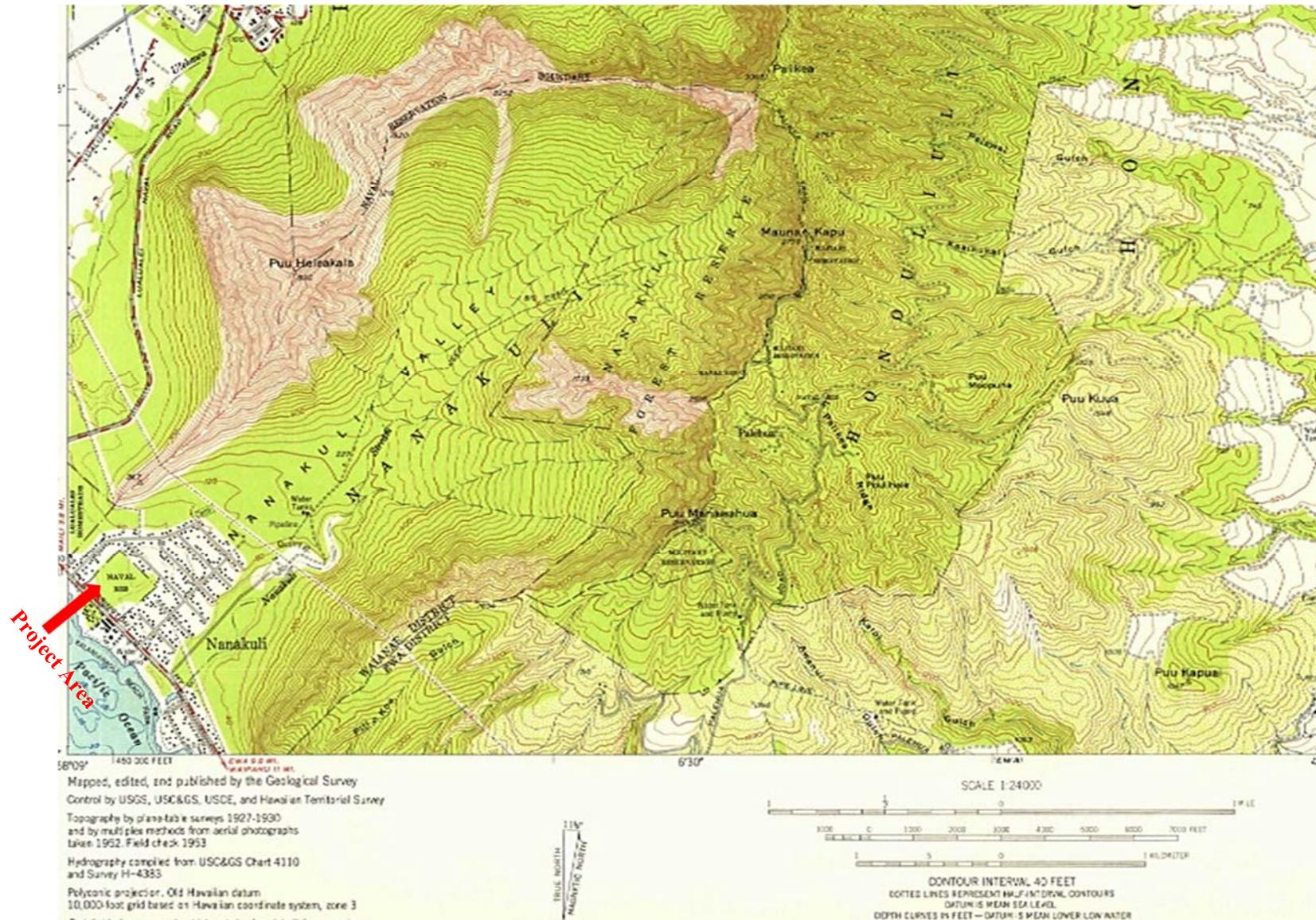


Figure 9. Portion of a 1953 USGS Schofield Barracks Quadrangle map (USGS 1953).

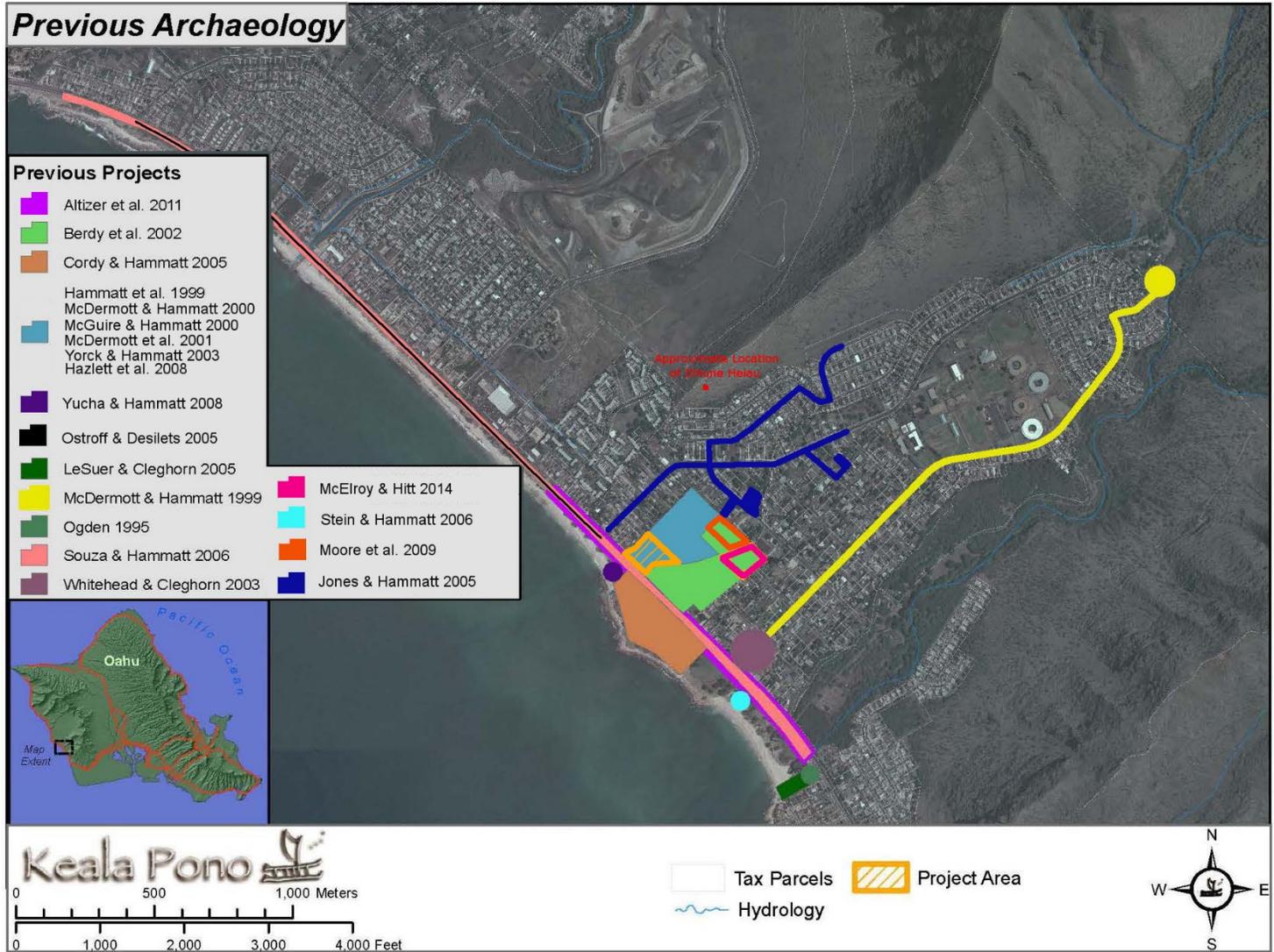


Figure 10. Previous archaeological studies in the vicinity of the project area.

Table 2. Previous Archaeology in Nānākuli

Author and Year	Location	TMK	Type of Study	Findings
McAllister 1933	Islandwide	Multiple	Survey	‘Ilihune Heiau, now destroyed.
Nakamura & Pantaleo 1994	Nānākuli & Lualualei Ahupua ‘a	Multiple	Reconnaissance Survey	Extensive surface disturbance noted.
Ogden Environmental and Energy Services Company 1995	MILCON-313, Naval Undersea Warfare Engineering Station (NUWES) Facility, Lualualei and Nānākuli	8-9-006:088	Subsurface Testing	No cultural properties were identified.
Cordy 1997	Nānākuli Ahupua‘a	8-9	Inventory Survey	Recorded agricultural sites, scattered habitation sites, and possible religious structures in upper Nānākuli Valley. Few sites were located in the lower valley, although the beach region was not included.
McDermott & Hammatt 1999	Proposed Nānākuli 242 Reservoir Site, and Nānākuli Ave.	8-9-008:003	Inventory Survey	No significant historic properties were identified.
Hammatt et al. 1999	Portion of former location of Camp Andrews	8-9-002:065	Assessment	Identified remains of Camp Andrews and numerous sinkholes which may provide additional information on traditional land use, flora and fauna.
McDermott & Hammatt 2000	Proposed Nānākuli IV Elementary Site	8-9-002:065, 023, por. 1	Inventory Survey with Subsurface Testing	Recorded sinkholes containing historic trash, traditional Hawaiian artifacts and midden, paleontological remains, and a human burial.
McGuire & Hammatt 2000	Proposed Nānākuli IV Elementary Site	8-9-002:065, 023, por. 1	Traditional Practices Assessment	Little documentation found for traditional cultural practices; historic land use includes ranching and military recreation. Describes the traditional practice of placing burials within sinkholes found on the subject property.
McDermott et al. 2001	Proposed Nānākuli IV Elementary Site	8-9-002:065, 023, por. 1	Inventory Survey with Subsurface Testing	Identified Site 50-80-07-5946, the remains of Camp Andrews and Site 50-80-07-5947, sinkholes with cultural deposits.
Berdy et al. 2002	Proposed Nanakuli Kokua Ohana Center	8-9-002:001	Inventory Survey with Subsurface Testing	Identified the two previously recorded sites above (5946 and 5947) and extended the boundaries of Site 5946.
Yorck & Hammatt 2003	Proposed Nānākuli IV Elementary Site	8-9-002:065	Monitoring	No cultural properties were identified.

Table 2. (cont.)

Author and Year	Location	TMK	Type of Study	Findings
Whitehead & Cleghorn 2003	Nānākuli Water System Improvements, Nānākuli Ave.	8-9-005	Monitoring	No archaeological features or sites were reported, although a possible cultural layer consisting of charcoal flecking and single piece of marine shell was recorded.
Cordy & Hammatt 2005	Ka Waihona O Ka Na‘auau Public Charter School	8-9-001:004	Monitoring	No cultural properties were identified.
Jones & Hammatt 2005	Dept. of Hawaiian Homelands Subdivision	Multiple	Monitoring	No cultural properties were identified.
LeSuer & Cleghorn 2005	Nānākuli Beach Park	8-9-006:001	Monitoring	No cultural properties were identified.
Ostroff & Desilets 2005	Farrington Highway	Multiple	Monitoring	Recorded five charcoal deposits, one of which may have been associated with Site 50-80-07-6671 in Lualualei.
Souza & Hammatt 2006	Farrington Highway	8-9-005:007, 8-7-006:013	Monitoring	No cultural properties were identified.
Stein & Hammatt 2006	Nānākuli Beach Park	8-9-001:002	Monitoring	No cultural properties were identified.
Hazlett et al. 2008	Proposed Nānākuli IV Elementary Site	8-9-002:065	Data Recovery	Excavated Sinkholes 1, 4, 9, & 12. Water within the sinkholes was found to be non-potable.
Yucha & Hammatt 2008	Nānākuli Beach Park	8-9-001:002	Monitoring	No cultural properties were identified.
Moore et al. 2009	Boys & Girls Club of Hawaii, Nanakuli Youth Education Town (YET)	8-9-002: 067	Monitoring	Two surface scatters encountered, consisting of basalt flakes, a coral abrader, and midden.
Altizer et al. 2011	Farrington Highway	Multiple	Archaeological Field Inspection and Literature Review	Identified three cultural resources: a section of OR&L Railroad; an historic section of Farrington Highway; and previously recorded subsurface charcoal deposits.
McElroy & Hitt 2014	Hale Makana o Nānākuli	8-9-002:001	Monitoring	No cultural properties were identified.

Other work in the vicinity of the project area did not produce any significant finds (see Table 2). These include an archaeological survey and assessment (McDermott and Hammatt 1999), monitoring (Whitehead and Cleghorn 2003, Cordy and Hammatt 2005, LeSuer and Cleghorn 2005), and subsurface testing (Ogden 1995).

Archaeological Work on the Subject Property

The following chronology outlines the archaeological work done on the subject parcel. An archaeological assessment, traditional cultural practices assessment, archaeological inventory survey, data recovery plan, archaeological monitoring plan, preservation plan, burial treatment plan, archaeological monitoring report, data recovery report, and addendum to the archaeological monitoring plan were completed. Review letters for these projects found at the SHPD Kapolei office are included in Appendix A.

1999 - Archaeological Assessment (Hammatt et al. 1999)

This assessment identified the structural remains of Camp Andrews (concrete slabs, trash deposits, gateway structure) and also the numerous limestone sinkholes in the project area. An archaeological inventory survey was recommended.

2000 - Traditional Cultural Practices Assessment (McGuire and Hammatt 2000)

This assessment was done concurrently with the inventory survey that was recommended in 1999. Interviews with five informants produced information on the former Camp Andrews, although not much data was found during archival research. Recommendations included further testing of the sinkholes, conducting additional research on Camp Andrews, as well as preparing a burial treatment plan and a mitigation plan.

2001 - Archaeological Inventory Survey (McDermott et al. 2001)

Fieldwork for this survey was done over 2000 and 2001. The survey identified 17 sinkholes, and two of the largest (Sink 1 and Sink 2) had subsurface testing conducted. The presence of historic and prehistoric cultural deposits were confirmed. These results were communicated via a letter to Sara Collins at SHPD (see Appendix A). Site number 50-80-07-5946 was assigned to Camp Andrews and 50-80-07-5947 was assigned to the collective sinkholes (Figure 11). During this fieldwork, the sinkholes were cleared and additional subsurface testing was conducted. Human remains found in Sink 2 are believed to be a complete burial, while only 3.5 g of isolated, fragmented human remains were found in Sink 9. Recommendations include additional data recovery on Sinks 1, 5, 8, and 9; no further work for Camp Andrews; and preparation of a preservation plan for Site 5947 to cap Sinks 1, 2, and 9 prior to grading. The O‘ahu Island Burial Council (OIBC) recommended no data recovery for Sink 2. Preparation of an archaeological monitoring plan, monitoring fieldwork, and an archaeological monitoring report were also recommended.

2001 - Burial Treatment Plan (McDermott 2001)

This plan provides details of the finding of human remains within Sink 2 and Sink 9 as well as recommendations for treatment of the *iwi*. The remains in Sink 2 appeared to be an articulated adult burial, the lower body of which was exposed during excavation. Historic artifacts were not found with the remains, and the individual was likely in a flexed position, suggesting a traditional age (pre-1778) for the burial. Excavation was halted and the remains were left in place.

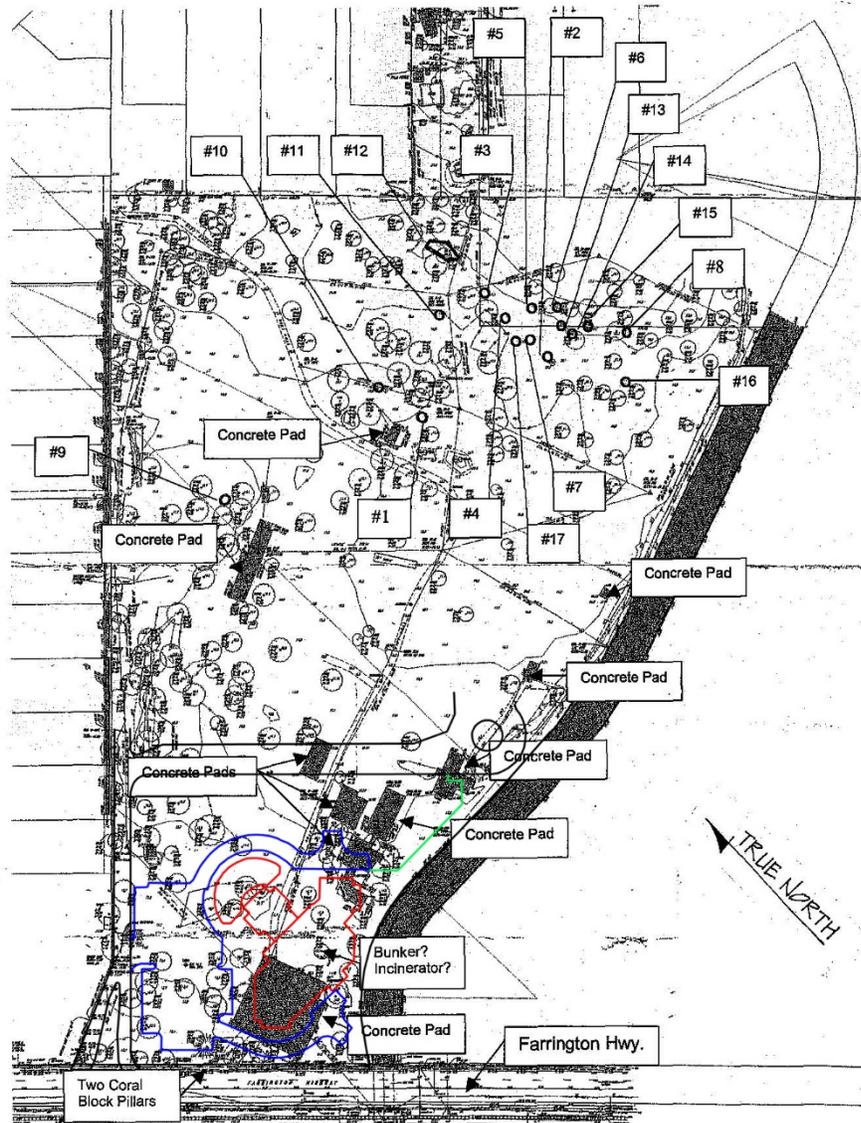


Figure 11. Location of features identified by McDermott et al. (2001:Figure 3) with overlay of the library construction plans. Sinkholes 1–17 make up Site 5947; “Two Coral Block Pillars” are Site 7767; the remaining labeled features comprise Site 5946.

The *iwi* in Sink 9 were fragmented and together weighed only 3.5 g. One bone fragment was identified as conclusively human. It was determined to be a humerus of a 2–3 year old child. Four other bone fragments from Sink 9 might possibly be human but could not be definitively identified. The remains were not associated with an intact burial but thought to be a part of a traditional midden deposit. The *iwi* of Sink 9 were temporarily curated at the SHPD burials program.

It was recommended that all of the remains were relocated, as the community generally did not want them to be preserved in place beneath the school to be constructed there. The relocation did not happen, however, and the *iwi* from both sinks were preserved within Sink 9 (see below).

2001 - Data Recovery Plan for Site 5947 (Hammatt et al. 2001a)

This document details the data recovery plan for Site 5947. The plan focuses the research around three major points: 1) the formation of sinkholes and their archaeological implications; 2) the connection between faunal extinction and the Polynesian settlement of Hawai'i; and 3) the use of sinkhole environments in Hawaiian society. Proposed excavations consisted of 1.5 m² in Sink 9, and column samples in Sinks 1, 4, 5, and 12. Any additional human remains encountered would be reinterred in Sink 2.

2001 - Archaeological Monitoring Plan (Hammatt et al. 2001b)

This plan sets forth recommendations for archaeological monitoring. On-site monitoring was recommended for grading/grubbing on the northeast side of the property and any open trenching within 50 ft. of Farrington Hwy. On-call monitoring was recommended for all work in the southwest-central and trenching in the northeast-central portions of the parcel (previous work and monitoring of grading/grubbing in this area was deemed sufficient to record and mitigate historic properties). The need for on-site monitoring will be re-evaluated after or during monitoring of the grading/grubbing.

2001 - Preservation Plan for Site 50-80-07-5947 (Appendix in Hammatt et al. 2001b)

This plan sets forth recommendations for preservation of Sinks 1, 2, and 9 as follows:

Sink 1: finished grade will be 1 ft. higher than the existing grade; it was recommended to fill in the sink to near existing grade.

Sink 2: "The treatment of Sink 2 containing a known burial was the subject of much discussion and has now been resolved in detail (Addendum to the Burial Treatment Plan; Don Hibbard's letter to Gordon Matsuoka dated November 21, 200)" [typo in date in the original].

Sink 9: finished grade will be 2 ft. higher than the existing grade; most of the deposit was already removed; it was recommended to fill in the sink to near existing grade.

2003 - Archaeological Monitoring Report for Nanakuli IV Elementary School Project (Yorck and Hammatt 2003)

This report presents the results of the archaeological monitoring of grubbing, grading, and trenching work done at the project site. There was the documentation of two historic artifacts which confirmed the previous land use by the military. One was a mess hall butter knife, while the other was a U.S. Navy identification tag or "dog tag" of a serviceman. The report also confirms the backfilling of Sinks 1 and 9, as outlined in the preservation plan (Hammatt 2001b:Appendix). Sink 2 was prepared as a burial crypt and the human remains from Sink 9 were interred there.

2005 - Data Recovery Report for Site 5947 (Hazlett et al. 2005 [Revised 2008])

The data recovery addresses the three main research questions set forth in the data recovery plan. Sinkholes 1, 4, 9, and 12 were excavated and extensive laboratory analyses were conducted. The research questions could not be answered, however. The water within the sinkholes was found to be

not potable and the sinkholes were therefore not used as wells. The data gathered added little new information, and no further work was recommended.

2006 - Addendum to Archaeological Monitoring Plan (Hammatt and Shideler 2006)

This plan sets forth revised recommendations for archaeological monitoring. On-site monitoring was recommended for all initial trenching.

Summary of Environmental and Cultural Background

Nānākuli is an *ahupua'a* of the Wai'anae *moku* on the western coast of O'ahu. It is made up of an upper and lower valley with tributaries originating from the mountain tops that descend and meet to form Nānākuli Stream. The valley receives low amounts of rainfall, therefore traditional agriculture consisted of sweet potato and other dryland crops, and fishing was a main form of subsistence.

Pre-contact Wai'anae appears to have been a well-populated *moku* and a ruling center for O'ahu in the early to mid-1500s (Cordy 2002). There were three gods that lived on top of Mount Ka'ala in the Wai'anae mountains, and '*ōlelo no 'eau* describe the goddess Kaiona who helped people who were lost in the mountains. Fishing and the coconut grove of Pōkā'i also appear often in *mo'olelo*.

The best descriptions of Nānākuli, however, come from John Papa 'Ī'i, who published a series of articles in *Ka Nupepa Ku'oko'a* in the 1800s about his travels there. He paints a picture of a community who spent much of their time fishing. While Nānākuli was not as populated as the other *ahupua'a* in Wai'anae at this time, it was a permanent residence for a small community until the mid to late 1800s.

In the early 1800s, during the height of the sandalwood trade, the traditional way of life changed, and population declined. There were no LCA awards given in Nānākuli. The land in Nānākuli, owned by the king, was leased out to ranchers. Much of the ranching has disturbed historic sites and, in at least one case, used historic site walls as cattle pens.

The later historic period saw continued growth of Nānākuli. The Waianae Sugar Plantation was founded in 1878, and the O.R.&L. railroad passed through Nānākuli along the coast. In 1917, a portion of land was set aside for a U.S. military reservation which was turned into Camp Andrews in 1941. After the passage of the 1920 Hawaiian Homes Commission Act, the Nānākuli Hawaiian Homestead subdivision was established, though the dearth of water continued to be a problem in the region.

Archaeological Implications and Anticipated Finds

Settlement patterns in Nānākuli were likely similar to the rest of the Wai'anae District (e.g., Cordy 2002). Initial settlement probably began with small groups of people living near the coast to take advantage of the abundant marine resources. The population then spread farther inland behind the coastal dunes and along the coastal trail which is roughly the route of today's Farrington Highway. Finally, the back valley areas were settled as people began to utilize more agriculturally productive zones. Archaeological evidence has shown that the upper valley currently hosts many house sites and dryland agricultural terraces. Early descriptions of Nānākuli depict a barren land with few houses and an area that lacks water and agricultural resources. However, the land may have appeared desolate from the coast because many of the people lived in the upper valley, and this was not visible from the shore.

Based on the previous archaeological work on the property including the identification of Camp Andrews, anticipated finds include sinkholes and historic military remnants. Sinkholes just *mauka* of the project area have housed human burials, traditional Hawaiian artifacts, and midden, and it is possible that these might be found during excavation. Surface remains of Camp Andrews also occur on the parcel, and it is likely that structural remnants and historic artifacts associated with the camp will be found. These may take the form of concrete slabs, walls, or foundations; metal, wood, or glass building materials; or bottles, ceramics, and other such items typically recovered from historic-era sites in Hawai'i.

PROJECT DESIGN

Archaeological monitoring will be conducted for all ground disturbing activity during construction of the Nānākuli Library.

Project Personnel

A senior archaeologist, qualified under §13-281, HAR, will serve as principal investigator for the project. The principal investigator will be responsible for overall project organization and management, will ensure high standards for field sampling and laboratory analyses, may conduct field visits and direct supervision of field personnel as appropriate, and will review the content of the monitoring report. The archaeological monitor will have sufficient fieldwork experience in Hawai'i or have completed sufficient college-level coursework in Anthropology and Hawaiian Archaeology. If archaeological remains are identified, the monitor has the authority to halt ground disturbing activities in the immediate area of the find.

Fieldwork

Prior to fieldwork, the archaeological monitor and/or principal investigator will meet with the construction team to discuss the monitoring plan. The archaeologist will ensure that the construction team understands the purpose of the monitoring and that the monitor has the authority to halt construction activity.

Field recording and sampling may include, but are not limited to, the drawing of stratigraphic profiles, photography, and controlled excavation of exposed features. Accurate map locations of test units, stratigraphic profiles, and archaeological features, deposits, and artifacts will be maintained. Field recording and sampling are intended to mitigate any potentially adverse effects to historic properties. Standards of documentation, recording, and analysis shall accord with HAR §13-279.

If human remains are discovered during monitoring, work in the vicinity of the remains will cease and the archaeological monitor will protect any exposed bones, secure the area, and notify the proper authorities. No further work will take place in the immediate vicinity, although work in other areas of the project site may continue. In the event of inadvertent discovery of non-burial historic properties, SHPD shall be consulted concerning appropriate mitigation measures. Any inadvertent discovery of burial historic properties will follow procedures as indicated in HAR §13-300-40 and HRS Chapter 6E-43. All burial material will be addressed as directed by the SHPD/DLNR.

Interim Protection for Site 7677

Site 50-80-07-7677, located just *mauka* of Farrington Highway, is the only part of the former Camp Andrews that is slated for preservation (Figures 12–14). The site consists of two mortared coral pillars that mark the entrance of the camp, a 1940s era military rest and recreation center. The pillars are currently in fair condition, mostly intact but with visible cracks in the mortar and fallen coral pieces. The two pillars were originally approved for mitigation/data recovery along with the rest of Camp Andrews, but pursuant to community input, the decision was made to preserve the pillars.

The eastern pillar measures 110 cm by 110 cm at its base and the mortared coral portion extends 275 cm tall. The pillar tapers toward the top and exhibits a 12 cm-high concrete block on top, with a 100 cm-high metal pole extending upward. A single hewn stone block occurs in the construction near the base, and a metal pole is embedded in the earth near the southwest corner of the pillar. The western pillar measures 125 cm by 125 cm at its base and the mortared coral portion extends 285 cm

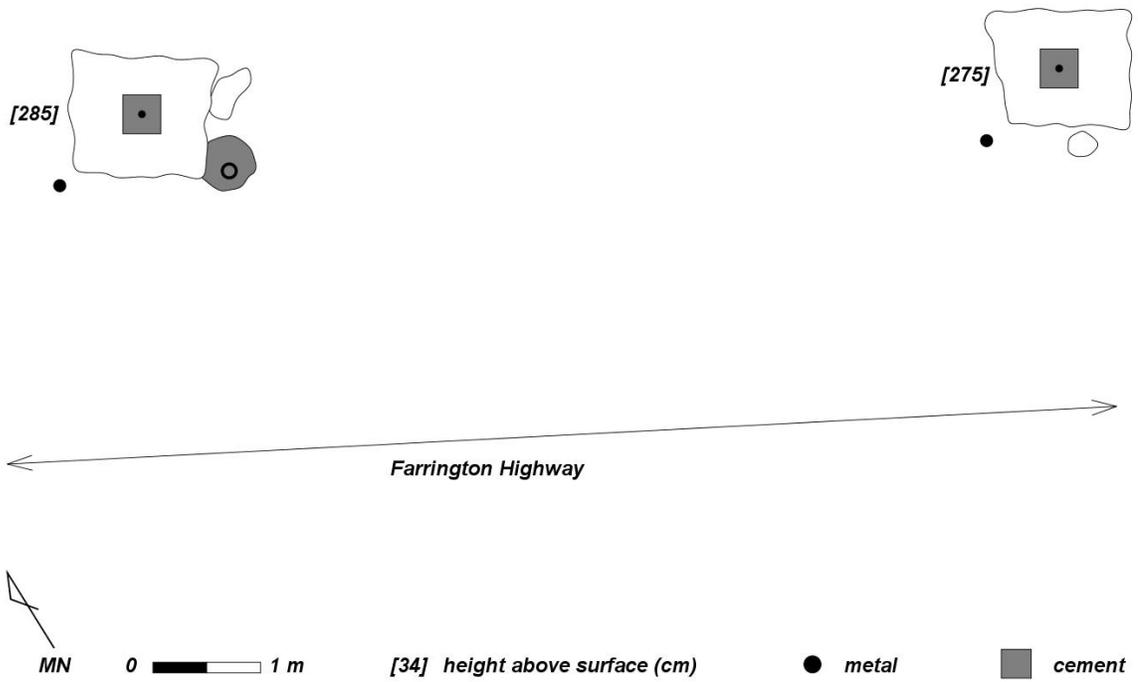


Figure 13. Plan view map of Site 7677, Camp Andrews pillars.



Figure 14. Site 7677, facing northeast.

tall. The pillar tapers toward the top and exhibits a 12 cm-high concrete block on top, with a 100 cm-high metal pole extending upward. A large fallen coral piece rests near the northeast corner. There is no visible basalt incorporated into the construction of this western pillar. A 200 cm-tall metal pole extends from the ground on the southwest side and is leaning against the pillar. The cement foundation for another pole is on the southeast side, but only the remnants of a former pole can be seen. The two pillars stand 7.2 m apart.

A 10 ft. buffer zone (3.1 m) will be maintained to protect the site during construction. The buffer will include both pillars and will be marked by construction fencing or other high visibility material. No ground disturbance will take place within the buffer zone. Once construction is complete, a preservation plan will be prepared pursuant to HAR §13-277-2 and submitted to SHPD for review and acceptance. The plan will detail the long term preservation measures of Site 7677 and any other sites identified during construction. No other work on the previously identified features of the former Camp Andrews (Sites 5946 and 7677) will be conducted.

The project has the potential to encounter archaeological resources including sink holes, historic military remnants, human skeletal remains, traditional Hawaiian artifacts, and midden. While no further work has been designated for Site 5946, surface remnants of Camp Andrews, the archeological monitoring program shall facilitate the identification and treatment (in collaboration with SHPD) of any new features associated with the site.

Post-Field Actions

The nature and scope of post-field actions will vary according to the results of the fieldwork. At minimum, if no archaeological remains are discovered, a report documenting the negative findings will be produced and submitted to SHPD. If archaeological remains are discovered, appropriate analyses will be conducted and reported.

Laboratory analyses of cultural materials and sediments will be conducted in accordance with HAR §13-279 and will follow the SHPD *Rules Governing Standards for Archaeological Monitoring Studies and Reports* (§ 13-279-4). The specific procedures employed in laboratory analysis will vary according to the kinds of remains that are recovered. For example, artifacts will be measured, weighed, sketched or photographed and identified as appropriate. Faunal material will be weighed, counted, and taxonomically identified to the highest level of detail possible.

Materials not associated with burials will be temporarily stored at the contracted archeologist's facility until an appropriate curation facility is selected, in consultation with the landowner and SHPD. Any departure from these provisions will be in consultation with and written concurrence from SHPD.

Preparation of a final report shall conform to HAR §13-279. Photographs of excavations will be included in the monitoring report even if no historically-significant sites are documented. A draft monitoring report shall be prepared and submitted to SHPD in a timely manner, within four months following the end of fieldwork. A revised final report will be submitted within one month following receipt of review comments on the draft report. Should burials and/or human remains be identified, other letters, memos, and/or reports may be required.

SUMMARY AND CONCLUSION

In summary, archaeological monitoring will be conducted for ground disturbing activity associated with construction of the Nānākuli Library on TMK: (1) 8-9-002:065 (por.) in Nānākuli Ahupua‘a, Wai‘anae District, on the island of O‘ahu. Many previous studies have been conducted on the parcel, including an archaeological assessment, traditional cultural practices assessment, archaeological inventory survey, data recovery plan, archaeological monitoring plan, preservation plan, burial treatment plan, archaeological monitoring report, data recovery report, and addendum to the archaeological monitoring plan. Located in the current project area are the remains of the former Camp Andrews, a military recreation area dating to the 1940s. Site 50-80-07-7677, consisting of two coral pillars that once marked the entrance to the camp are slated for preservation. No other work will be conducted on the previously identified features of Camp Andrews (Sites 5946 and 7677).

GLOSSARY

<i>ahupua‘a</i>	Traditional Hawaiian land division usually extending from the uplands to the sea.
<i>‘āina</i>	Land.
<i>‘āpana</i>	Piece, slice, section, part, land segment, lot, district.
<i>heiau</i>	Place of worship and ritual in traditional Hawai‘i.
<i>‘ili</i>	Land division, next in importance to <i>ahupua‘a</i> and usually a subdivision of an <i>ahupua‘a</i> .
<i>inoa</i>	Name, title, or namesake.
<i>koa haole</i>	The small tree <i>Leucaena glauca</i> , historically-introduced to Hawai‘i.
<i>kula</i>	Plain, field, open country, pasture, land with no water rights.
<i>kuleana</i>	Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.
Māhele	The 1848 division of land.
<i>makai</i>	Toward the sea.
<i>mauka</i>	Inland, upland, toward the mountain.
<i>mele</i>	Song, chant, or poem.
midden	A heap or stratum of refuse normally found on the site of an ancient settlement. In Hawai‘i, the term generally refers to food remains, whether or not they appear as a heap or stratum.
<i>moku</i>	District, island.
<i>mo‘olelo</i>	A story, myth, history, tradition, legend, or record.
<i>muliwai</i>	River mouth, estuary, or pool near the mouth of a stream, enlarged by ocean water left there at high tide.
<i>‘ōlelo no‘eau</i>	Proverb, wise saying, traditional saying.
<i>oli</i>	Chant.
<i>‘opihi</i>	Limpets, four types of which are endemic to Hawai‘i: <i>Cellana exarata</i> (<i>‘opihi makaiāuli</i>), <i>C. sandwicensis</i> (<i>‘opihi alinalina</i>), <i>C. talcosa</i> (<i>‘opihi ko‘ele</i>), and <i>C. melanostoma</i> (no Hawaiian name). <i>‘Opihi</i> are a prized food in Hawai‘i and considered a rare treat today.

pre-contact	Prior to A.D. 1778 and the first written records of the Hawaiian Islands made by Captain James Cook and his crew.
<i>pu‘u</i>	Hill, mound, peak.
<i>‘uala</i>	The sweet potato, or <i>Ipomoea batatas</i> , a Polynesian introduction.
<i>‘ulu</i>	The Polynesian-introduced tree <i>Artocarpus altilis</i> , or breadfruit.
<i>wauke</i>	The paper mulberry, or <i>Broussonetia papyrifera</i> , which was made into tapa cloth in traditional Hawai‘i.

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APPENDIX: SHPD REVIEW LETTERS FOR TMK: (1) 8-9-00:065

November 13, 2001

Mr. David Shideler, O`ahu Office Manager
Cultural Surveys Hawaii, Inc.
733 N. Kalaheo Avenue
Kailua, Hawaii 96734

LOG NO: 28574
DOC NO: 0111SC09

Dear Mr. Shideler:

**SUBJECT: Chapter 6E-8 Historic Preservation Review of a Draft Report Documenting the Results of an Archaeological Inventory Survey at the Proposed Nanakuli IV Elementary School Site
Nanakuli, Wai`anae, O`ahu
TMK: (1)-8-9-002: 065**

Thank you for the submission of a draft report documenting the results of an archaeological inventory survey at a proposed elementary school site in Nanakuli, O`ahu (McDermott et al. 2001. *Archaeological Inventory Survey of the Proposed 15-Acre Nanakuli IV Elementary School Site [A Portion of the Former Camp Andrews], Nanakuli Ahupua`a, Wai`anae, District, Island of O`ahu [TMK: 8-9-02:65 Cultural Surveys Hawaii ms.]*).

The historical background section is good and contains valuable oral historical information. The section on previous archaeological work in the area is acceptable, and provides adequate data for hypothesizing likely settlement patterns in the project area.

We believe that the fieldwork was adequate, covering the 15-acre school parcel through a combination of pedestrian survey and excavation work in 17 sinkholes. A total of two significant historic sites were found. Site 5946 comprises the former Camp Andrews installation. Site No. 5947 consists of traditional Native Hawaiian cultural deposits, including human burials, and pre-human palaeontological deposits found in the sinkholes on the property. Stratigraphic, palaeoenvironmental, and radiocarbon data indicate that the sinkhole deposits (both cultural and palaeontological) have undergone mixing, probably due to a combination of surface sheet wash, aeolian deposition, and bioturbation. Nonetheless, important cultural and palaeontological remains – especially the bones of a number of extinct, endemic avifauna – were recovered from a number of the sinkholes.

The skeletal remains of at least three humans were found during the survey. One burial (representing the remains of one adult individual) was found and left *in situ* in Sink #2. Fragmentary portions of at least two individuals (a newborn infant and a 2-3 year-old child) were recovered from midden deposits in Sink #9. All remains are believed to be those of Native Hawaiians, based on contextual evidence. Estimated time since death in all cases is greater than 50 years.

Mr. David Shideler, O`ahu Office Manager
Page Two

We agree with the significance evaluations proposed. Site 5946 was deemed significant for its potential to yield information on Hawaii's history. Site 5947 was deemed significant for its potential to yield information on Hawaii's past, and for traditional cultural importance to an ethnic group.

No mitigation work is recommended for Site 5946 and we concur with this recommendation; sufficient information was gathered during the inventory survey. Site-5947 is recommended to undergo mitigation, including preparation of a burial treatment plan, an archaeological data recovery plan, and an archaeological monitoring plan. We generally concur with these recommendations, but have specific, recommended revisions to them, particularly with respect to which sinkholes merit data recovery. Our recommended changes are listed in the following Attachment.

Revisions may be submitted on separate pages for inclusion with the report copy on file at our office. When we receive the revisions, we anticipate accepting the report as final.

The next steps in the historic preservation review process will be the preparation of an archaeological data recovery plan for further excavations in some of the sinkholes, an archaeological monitoring plan, and a burial treatment plan. Please consult with our Burial Programs staff on the preparation of the burial treatment plan.

As always, if you disagree with any comments made here or have questions, please contact our review staff as soon as possible so the concerns may be resolved. Should you have any questions on archaeology, please feel free to contact Sara Collins at 692-8026. Should you have any questions on burial matters, please feel free to contact Kai Markell at 587-0008.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

SC:jk

c: Mr. A. Van Horn Diamond, Chair, O`ahu Island Burial Council
Mr. Kai Markell, Burial Sites Program

ATTACHMENT
ARCHAEOLOGICAL INVENTORY SURVEY AT NANKULI IV
CULTURAL SURVEYS HAWAII

Inventory Findings, Site No. 50-80-07-5947

(1) Page 73, Paragraph 3: Although you don't say so explicitly, we assume that your last sentence implies that further investigation, in the form of data recovery excavations, is warranted at Sink #1.

(2) Pages 78-79: As discussed below, Sink #2 will not undergo data recovery excavations, per recommendation of the O'ahu Island Burial Council (OIBC).

(3) Page 88, Paragraph 1: We do not concur with your determination that no further work is warranted at Sink #5. Judging from our review of Dr. Ziegler's findings (Appendix A) and the plan map provided here (Figure 28), we believe that it is likely additional, significant deposits – particularly palaeontological ones – still exist within the sinkhole. Consequently, data recovery work would be the preferred method of recovering such remains.

(4) Page 96, Paragraph 1: We do not concur with your determination that no further work is warranted at Sink #8. Judging from our review of Dr. Ziegler's findings (Appendix A) and the plan map provided here (Figure 33), we believe that it is likely additional, significant deposits – particularly palaeontological ones – still exist within the sinkhole. Consequently, data recovery work would be the preferred method of recovering such remains.

(5) Pages 96-103: Judging from our review of Dr. Ziegler's findings (Appendix A) and the plan map provided here (Figure 34), we believe that it is likely additional, significant deposits – particularly palaeontological ones – still exist within the sinkhole. Consequently, data recovery work would be the preferred method of recovering such remains.

Mitigation Commitments

Recommendations, Site 50-80-07-5947: Data Recovery

(1) As you know, the OIBC, at its regular meeting on October 10, 2001, recommended that no further excavations, including data recovery, be carried out within Sink #2. Subsequent to that meeting, the Department of Accounting and General Services (DAGS) proposed to use Sink #2 as the reinterment site for the entire school project area, leaving *in situ* the one burial, and reintering any other human remains from the subject parcel within that sink. It seems likely that the OIBC will concur with this additional step at its next meeting on November 14, 2001. Consequently, you will need to revise this section so as to omit any plans for data recovery work at Sink #2.

(2) Judging from the data presented in the report, it appears that four sinks may yet contain sufficient deposits for data recovery work. Contrary to some of the recommendations made in the report text, we believe that data recovery is warranted at Sinks #1, 5, 8, and 9, provided deposits are present and accessible. We base our recommendations in part on the findings made during Dr. Ziegler's analyses of faunal bones (Appendix A) from these sinks which clearly indicate that significant avifauna remains are present. Assuming that sufficient deposits are still present, we would recommend that one 1m² be excavated in Sinks 1, 5, and 8; Sink #9 may be able to accommodate a unit measuring 1m by 2m or 1m by 1.5m in size. We are quite willing to discuss these recommendations and revise them in light of your staff's field experiences on the subject parcel.



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

December 7, 2001

Mr. David Shideler, O`ahu Office Manager
Cultural Surveys Hawaii, Inc.
733 Kalaheo Avenue
Kailua, Hawaii 96734

LOG NO: 28696 ✓
DOC NO: 0111SC25

Dear Mr. Shideler:

**SUBJECT: Chapter 6E-8 Historic Preservation Review of Revisions Made to an Archaeological Inventory Survey Report for the Proposed 15-Acre Nanakuli IV Elementary School Construction Nanakuli, Wai`anae, O`ahu
TMK: (1)-8-9-002:065**

Thank you for the prompt submission of recommended revisions to this archaeological inventory survey report, which were submitted November 15, 2001 (McDermott et al. 2001. *Archaeological Inventory Survey of the Proposed 15-Acre Nanakuli IV Elementary School Site [A Portion of the Former Camp Andrews], Nanakuli Ahupua`a, Wai`anae District, Island of O`ahu [TMK: 8-9-02:65]*). These revisions respond to our review letter of November 2001 (Log: 28,574; Doc: 0111SC09).

The revisions have been made acceptably, and we find the inventory survey report to be acceptable.

Pursuant to more recent discussion among Sara Collins of our staff, you, and Matt McDermott, we recommend that the following steps be taken with regard to further mitigation work, including archaeological data recovery and monitoring. We note that these recommendations are predicated on the determination made by the Department of Accounting and General Services (DAGS) to carry out construction-related activities on TMK: (1)-8-9-002:065, Lot C – currently the property of the Department of Hawaiian Homelands.

- (1) Data recovery excavations will take place within Sinks 5 and 9. In Sink 5, further data recovery work shall include the taking of column samples in order to acquire additional palaeontological and palaeoenvironmental data. In Sink 9, further data recovery fieldwork shall include the excavation of approximately

Mr. David Shideler, O`ahu Office Manager
Page Two

1.0 to 1.5 square meters of remaining deposits. With regard to both Sinks 5 and 9, data recovery work shall include laboratory analyses of recovered deposits and AMS dating of radiocarbon samples. A report of findings made during data recovery shall be submitted to the State Historic Preservation Division for review and approval.

- (2) In developing the mitigation plan, the Department of Land Natural Resources has agreed that the Native Hawaiian burial found in Sink 2 can safely be preserved in place within a reinforced concrete ring, as depicted in Option B of the Kober, Hansen, Mitchell Architects' proposal.
- (3) Archaeological monitoring shall be conducted on-site by a qualified archaeologist during all ground-disturbing activities, including the construction of the reinterment facility at Sink 2. Prior to beginning any ground disturbance, an acceptable archaeological monitoring plan shall be submitted to the State Historic Preservation Division for review and approval.

We believe that if these mitigation steps are fulfilled, then construction of the proposed Nanakuli IV Elementary School will have "no adverse effect" on significant historic sites.

Should you have any questions about archaeology, please feel free to contact Sara Collins at 692-8026. Should you have any questions about burial matters, please feel free to contact Kai Markell at 587-0008.

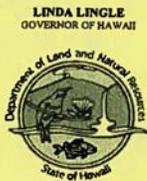
Aloha,



Don Hibbard, Administrator
State Historic Preservation Division

SC:jk

c Mr. A. Van Horn Diamond, Chair, O`ahu Island Burial Council
Mr. Kai Markell, Burial Sites Program



Laura B. Thiele
 Chairperson
 Board of Land and Natural Resources
 Commission on Water Resource Management

Russell Y. Tsuji
 First Deputy

Ken C. Kawahara
 Deputy Director - Water

Aquatic Resources
 Boating and Ocean Recreation
 Bureau of Conveyances
 Commission on Water Resource Management
 Conservation and Coastal Lands
 Conservation and Resources Enforcement
 Engineering
 Forestry and Wildlife
 Historic Preservation
 Kahoolawe Island Reserve Commission
 Land
 State Parks

STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
 601 KAMOKILA BOULEVARD, ROOM 555
 KAPOLEI, HAWAII 96707

December 22, 2008

Mr. David Shideler
 Cultural Surveys Hawaii
 P. O. Box 1114
 Kailua, Hawai'i 96734

LOG NO: 2008.5716
 DOC NO: 0812WT77
 Archaeology

Dear Mr. Shideler:

**SUBJECT: Chapter 6E-42 Historic Preservation Review –
 FINAL Data Recovery Report for Site 50-80-07-5947, Nānākuli Ahupua‘a,
 Wai‘anae District, O‘ahu, Hawai‘i
 TMK: (1) 8-9-002: 065, 071, & 089**

Thank you for providing the opportunity for us to review the aforementioned Final Archaeological Data Recovery report (DRR) we received on December 12, 2008.

Data recovery efforts concentrated on mitigating impacts to an historic property by the construction of the Nānākuli IV Elementary School, Nānākuli Public Library and the new Leeward Head Start Program on a 15 acre parcel. Two sites were recorded during the inventory survey phase of this project; SIHP 50-80-07-5946, a remnant of WWII Camp Andrews, and SIHP 50-80-07-5947, 17 sinkhole features. Both were deemed eligible for the State and National Registers of Historic Places, though only features 1, 4, and 12 on Site 5947 were investigated during data recovery efforts. No further work was recommended for Site 50-80-07-5946.

This work produced Native Hawaiian artifacts, paleontological remains in the form of extinct avian fauna, and a human burial.

The Data Recovery Report meets the minimum requirements, and is accepted as compliance with 6E-42 and Hawaii Administrative Rules (HAR) §13-13-278 *Rules Governing Standards for Archaeological Data Recovery Studies and Reports*.

Please call Wendy Tolleson at (808) 692-8024 if you have any questions or concerns regarding this letter.

Aloha,

Nancy McMahon, Deputy SHPO/State Archaeologist
 and Historic Preservation Manager