Section 106 Consultation
Publication Form

Project Name: Kūlanihākoʻi Street R-1 Waterline Extension Project

Island: Maui

District: Waiohuli Ahupua’a, District of Wailuku

TMK: (2)2-2-025:999, (2)3-9-001:999, (2)3-9-044:999 (Kūlanihākoʻi Street Right-of-Way):
   (2)3-9-001:012 and (2) 3-9-044:041

Permits: N/A

Applicant or Proposing Agency:
State of Hawaii, Department of Health, Environmental Division, Wastewater Branch
919 Ala Moana Boulevard, Room 309
Honolulu, Hawaii, 96814
Contact & Phone: Ms. Sue Liu, (808) 586-4294

Approving Agency:
State of Hawaii, Department of Health, Environmental Division, Wastewater Branch
Contact & Phone: Ms. Sue Liu, (808) 586-4294

Consultant:
Status: Comments due no later than September 7, 2016 to:
919 Ala Moana Boulevard, Room 309
Honolulu, Hawaii, 96814
Attn: Ms. Sue Liu
Email: wwh@doh.hawaii.gov

Summary:

The Department of Health (DOH) initiated Section 106 of the NHPA consultation with the State Historic Preservation Division (SHPD) in accordance with 36 CFR Part 800. In 1990, the U.S. Environmental Protection Agency (EPA) designated the DOH to act on EPA’s behalf, pursuant to 36 CFR §800.2 (c) (4), when initiating Section 106 of the NHPA process in connection with projects funded under the Hawaii Clean Water State Revolving Fund (CWSRF).

The DOH is providing funding under the CWSRF to the County of Maui’s (County), Department of Environmental Management (DEM) for the Kūlanihākoʻi Street R-1 Waterline Extension Project. The proposed project will utilize federal funding and is considered an undertaking, as defined by Section 106 of the NHPA, 54 U.S.C. §306101 et seq., and 36 CFR Part 800.

The proposed project involves an extension of the existing R-1 (recycled) waterline located within South Kihei Road in Kihei to Kūlanihākoʻi Street. This action involves both new line installation as well as conversion of an existing 8-inch domestic waterline for R-1 use. The proposed action will be located within the Kūlanihākoʻi Street right-of-way, owned by the County of Maui. In addition, two (2) laterals will be installed from the new waterline onto parcels identified by Tax Map Key (2)3-9-001:012 and (2)3-9-044:041.

The DOH has engaged SHPD to determine the presence of potential sites of historic importance within the vicinity of the project area as well as the potential impact of the project on such sites, if present.
July 11, 2016

Mr. Alan Downer, Administrator
Hawai‘i State Historic Preservation Division
Department of Land and Natural Resources
Kakuhihewa Building
601 Kamokila Blvd., Suite 555
Kapolei, Hawaii  96707

Subject: National Historic Preservation Act, Section 106 Consultation
Kūlanihāko‘i Street R-1 Waterline Extension Project
Waiohuli Ahupua‘a, District of Wailuku, Island of Maui
TMK Nos. (2)2-2-025:999, (2)3-9-001:999, (2)3-9-044:999 (Kūlanihāko‘i Street
Right-of-Way); (2)3-9-001:012 and (2) 3-9-044:041
(CWSRF Project no. C150077-25)

Dear Mr. Downer:

On behalf of the U.S. Environmental Protection Agency (EPA), the State of Hawai‘i, Department of Health, Wastewater Branch would like to invite you to participate in consultation for the Kūlanihāko‘i Street R-1 Waterline Extension project which is being proposed by the County of Maui, Department of Environmental Management (DEM). This consultation is sought in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (2006).

The proposed project involves an extension of the existing R-1 (recycled) waterline located within South Kihei Road in Kihei to Kūlanihāko‘i Street. This action involves both new line installation as well as conversion of an existing 8-inch domestic waterline for R-1 use. The proposed action will be located within the Kūlanihāko‘i Street right-of-way, owned by the County of Maui. In addition, two (2) laterals will be installed from the new waterline onto parcels identified by Tax Map Key (2)3-9-001:012 and (2)3-9-044:041. This area is known as the Area of Potential Effect (APE) and will be the area of analysis for the proposed project’s potential impact to historic sites. See Exhibit “A”. It is noted that the project site is located within the County’s Special Management Area (SMA), and the use of County lands is a trigger for Hawai‘i Revised Statutes (HRS), Chapter 343 Environmental Assessment requirements. However, the DEM will be coordinating all SMA and HRS, Chapter 343 Environmental Assessment requirements with the County Departments of Planning and Public Works, respectively.
The proposed project will utilize federal funding through the Clean Water State Revolving Fund Program and is considered a federal action and undertaking, as defined by Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (2006). Therefore, compliance with applicable requirements of the NHPA is required for the project. The EPA has authorized the State of Hawai‘i, Department of Health to act on its behalf regarding the NHPA Section 106 notification and consultation process. This letter is intended to initiate Section 106 consultation with the State Historic Preservation Division (SHPD) in accordance with Title 36, Code of Federal Regulations, Section 800.3.

Overview of the Undertaking

The proposed project involves an extension of the existing R-1 (recycled) waterline located within South Kihei Road in Kihei to Kūlanihāko‘i Street. This action involves both new line installation along Kūlanihāko‘i Street from South Kihei Road to Kenolio Road, as well as conversion of an existing 8-inch domestic waterline from Kenolio Road to Mahealani Place for R-1 water use. The waterline will then terminate at the Kūlanihāko‘i Street intersection with Mahealani Place. The project will span approximately 2,600 lineal feet. The proposed action will be located within the Kūlanihāko‘i Street right-of-way, owned by the County of Maui. In addition, two (2) laterals will be installed from the new waterline onto parcels adjacent to Kūlanihāko‘i Street identified by Tax Map Key (2)3-9-001:012 and (2)3-9-044:041. Refer to Exhibit “A”. The waterline and laterals will be installed at a depth of approximately four (4) feet.

Historical, Cultural, and Archaeological Background

The project area is located along Kūlanihāko‘i Street in the north-central part of Kihei town, approximately 500 feet inland from the coastline. The project area is bordered by South Kihei Road on the west, Pi’ilani Highway on the east, and by existing residential developments to the north and south. The project site is situated in the Waiohuli Ahupua‘a, in the traditional district (or moku) of Kula.

An Archaeological Monitoring Plan prepared for the project, and included herein as Exhibit “B”, noted that historically, the majority of Maui’s population is evidenced to have occupied lands above the 30-inch rainfall line where crops could be easily grown, however coastal settlement was also apparent. The existence of fishponds and heiau near Kalepolepo, in the vicinity of the project area in northern Kihei, confirmed the presence of a population which relied mainly on coastal and marine resources. See Exhibit “B”.

Early records, such as journals kept by explorers and missionaries or Hawaiian traditions that have survived long enough to be written down, are brief and infrequent regarding the South Kihei region. Some records account for the region as being barren and thinly inhabited. Refer to Exhibit “B”.
As western influence in Hawai‘i grew, Kalepolepo became an important provisioning area as Europeans on the island were living or frequenting the coast, and had established several churches and missionary stations. Refer to Exhibit “B”.

As early as 1828, sugar cane was being grown commercially on Maui. Kihei was originally established as a small area adjacent to a landing built in the 1890s as the Kihei Plantation Company (KPC) was growing cane in the plains above the region. Later, a 200-foot-long wharf was constructed to serve inter-island boats for landing freight and shipping produce. In 1908, KPC was absorbed by the Hawaiian Commercial and Sugar Company, who cultivated what had been the KPC fields into the 1960s. Refer to Exhibit “B”.

During World War II, the U.S Navy established several military camps and facilities on Maui, including an amphibious tractor training base at Kama'ole Beach. For training purposes, the beaches utilized for this type of training, including Kama'ole Beach, were fortified and then assaulted by military personnel. After the war ended, these fortifications and facilities were taken down. Refer to Exhibit “B”.

After the war, the population on Maui, and the South Maui region in relation, declined. In 1959, a report for the Maui County Planning and Traffic Commission proposed the development of tourism to provide additional income and employment that would aid not only in maintaining the present population, but also encourage future growth. In 1970, Kihei was still characterized by diversified agriculture, grazing, open space, homestead development, and dirt roads with a population of approximately 1,600 inhabitants. Following the development of tourism accommodations along Maui’s southern coast beginning in the 1970s, the population of the region has since exceeded 25,000 inhabitants. Refer to Exhibit “B”.

Summary of Archaeological Sites within the Area of Potential Effect (APE)

The APE was established based upon the proposed alignment of the project that will be evaluated for impact to historic sites. Refer to Exhibit “A”.

An Archaeological Monitoring Plan (AMP) covering the land affected by the proposed project was completed by Scientific Consultant Services, Inc. (SCS) in 2016. This AMP covers all anticipated ground disturbing subsurface activities associated with the R-1 waterline extension project within the Kūlahi Street right-of-way and associated water lateral installations. Based on the findings of previous archaeological studies conducted in the vicinity, it was determined that the project area has the potential for yielding intact or previously disturbed cultural materials including, human skeletal remains or pre- and post-contact cultural deposits in subsurface context. Thus, a program of Archaeological Monitoring was recommended to be conducted within the vicinity of the project area in order to identify, document, and record any historic properties inadvertently identified, and to provide appropriate mitigation methods, as necessary. The AMP was reviewed and accepted by the State Historic Preservation Division (SHPD) via letter dated April 19, 2016.
The AMP and acceptance letter are attached for reference as Exhibit “B” and Exhibit “B-1”, respectively.

The AMP was prepared in accordance with the SHPD administrative rules and governing standards for Archaeological Monitoring, Hawai‘i Administrative Rules (HAR) Section 13-279. The firm conducting the archaeological monitoring program will use the guidelines outlined in the AMP during monitoring implementation phase of the project. Refer to Exhibit “B”.

An Archaeological Monitoring Report documenting the project findings and interpretation, following SHPD guidelines for archaeological monitoring reports, will be submitted to SHPD within 180 days of the completion of the work covered under the AMP. If cultural features or deposits are identified during fieldwork, the sites will be evaluated for historical significance and assessed under State and Federal Significance Criteria. Furthermore, should human skeletal remains be inadvertently discovered during ground altering activities, all work in the vicinity of the find will halt, and the SHPD will be contacted by the monitoring archaeologist for the employment of appropriate protocol.

**Consultations**

Section 106 consultation activities are being initiated via this letter pursuant to the NHPA of 1966. Section 106 consultation letters have been sent out to various organizations and individuals as indicated in Exhibit “C”.

We welcome any comments you have on this proposed project. We are particularly interested in any information you may have on the historic and cultural sites that have been recorded in the area or any other historic or cultural sites about which you may have knowledge. In addition, if you are acquainted with any person(s) or organization(s) that is knowledgeable about the proposed project area, or any descendants with ancestral lineal or cultural ties to or knowledge or concerns for, and cultural or religious attachment to the proposed project area, we would appreciate receiving their names and contact information.

We would appreciate a written response within 30 days from date of receipt of this letter. Please address any written comments you may have to the following:

Sue S. Liu, Environmental Engineer  
State of Hawaii  
Department of Health, Wastewater Branch  
919 Ala Moana Boulevard, Room 309  
Honolulu, Hawai‘i 96814

Bryan Esmeralda, AICP  
Munekiyo Hiraga  
305 High Street, Suite 104  
Wailuku, Hawai‘i 96793
We appreciate your assistance with this request. Should you have any questions, please feel free to contact Bryan Esmeralda of Munekiyo Hiraga at (808) 244-2015.

Sincerely,

SINA PRUDER, P.E. CHIEF
Wastewater Branch

Exhibits

C: Mr. Derek Takahashi, County of Maui, Department of Environmental Management (w/attachments)
   Mr. Sean Ogata, Fukumoto Engineering, Inc. (w/attachments)
   Mr. Mike Dega, Scientific Consultant Services, Inc. (w/attachments)
   Mr. Bryan Esmeralda, AICP, Munekiyo Hiraga (w/o attachments)
Exhibit “A”  
Kūlanihākoʻi Street R-1 Waterline Extension  
Section 106 Consultation Area of Potential Effect Map

Prepared for: County of Maui, Department of Environmental Management
AN ARCHAEOLOGICAL MONITORING PLAN FOR
THE KULANIHAKOI STREET RECYCLED WATERLINE EXTENSION
PROJECT NO. WW-15-02
WAIOHULI AHUPUA`A, WAILUKU DISTRICT,
MAUI ISLAND, HAWAI`I
[TMK: (2) 2-2-025:999, 3-9-001:999, and 3-9-044:999]

Prepared by:
Michael Dega, Ph.D.
April 2016
FINAL

Prepared For:
Fukumoto Engineering, Inc.
1721 Wili Pa Loop, Suite 203
Wailuku, Hawaii 96793
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INTRODUCTION

Scientific Consultant Services, Inc. (SCS) has prepared this Archaeological Monitoring Plan in advance of ground altering work in service of the County of Maui, Department of Environmental Management, Wastewater Reclamation Division project designated as the Kulanihakoi Street Recycled Waterline Extension Project (WW15-02). The project area occurs in Kihei, Waiohuli Ahupua`a, Wailuku Districts, Maui Island, Hawai`i [TMK (2): 2-2-025:999, 3-9-001:999, and 3-9-044:999] (Figures 1 and 2). The land is owned by the County of Maui.

The project involves an extension of the recycled water that is both new installation and also conversion of an existing domestic waterline. Along Kulanihakoi Street, from South Kihei Road to Kenolio Road, all new pipe is being installed. After Kenolio Road marks the location where the new pipe will connect to the existing 8-inch domestic waterline. This will be utilized as a recycled waterline. The project area runs for circa (c.) 2,500 linear feet. Archaeological Monitoring is being conducted due to the potential for historic properties to occur in subsurface contexts (see below).

Archaeological Monitoring “shall entail the archaeological observation of, and possibly intervention with, on-going activities which may adversely affect historic properties” (§13-279-4, HAR). Monitoring will ensure that significant cultural resources, if identified, are documented through profiles and plan view maps, possibly sampled through excavation of exposed features, and evaluated for their historical significance. This Monitoring Plan will also ensure that if human remains are identified during subsurface work, appropriate and lawful protocol concerning the Inadvertant Discovery of Human Remains (pursuant to §13-300-40a, b, c, HAR) is followed. As will be made aware to the construction team, the archaeological monitor has the authority to halt any ground disturbing activities during this project in the immediate area of a find in order to appropriately carry out the provisions of this plan, in consultation with the State Historic Preservation Division (SHPD).

This AMP will require formal approval by the SHPD prior to any land altering activities in the project area. The following text provides more detailed information on the reasons for monitoring, potential site types to be encountered during excavation, monitoring conventions and methodology for both field and laboratory work, and discusses curation and reporting of cultural material recovered.
Figure 1. USGS Pu‘u O Kali Quadrangle Showing the Project Area.
Figure 2. Tax Map Key [TMK] Showing the Project Area.
Figure 3. Google Maps Showing Project Area.
PROJECT AREA DESCRIPTION

The project area is located along Kulanihakoi Street in the north-central portion of Kihei town, Kaonoulu Ahupua’a, Wailuku District, Maui Island, Hawai‘i [TMK (2): 2-2-025:999, 3-9-001:999, and 3-9-044:999]. The project area bordered on the west by South Kihei Road, and on the east by Piilani Highway, and existing residential developments to the north and south. Vegetation in the project area is nil, given that it is an active roadway.

Foote et al. (1972:Sheet102) note two main soil series occurring in the project area. The first series consists of the Waiakoa Series (WID2) and occurs as well-drained soils on Maui uplands, (and within ½ mile of the coastline, at elevations from 100 feet to 1,000 feet above sea level (Foote et al. 1972:126-127). The soil is extremely stony silty clay loam with high erosion. In profile, the surface layer is dark reddish brown silty clay loam, with underlying reddish brown silty clay loam, all occurring over weathered bedrock. Soil profiles associated with this series are shallow (to c. 88 cm below surface). The second series is the Alaeloa Soil Series (Ibid. 26). This is also well-drained soils occurring from 100 to 1,000 feet above sea level. In profile, the sediments consist of dark reddish brown silty clays, derived from the in situ weathering and decomposition of underlying bedrock. The profiles extend to almost one meter below the surface, with silty clay being the dominant soil texture throughout the profile.

There is no vegetation within the project area, with decorative plants, common lawn grass, and hedges occurring outside the right-of-way and associated with residences/condominiums.

NATURAL AND CULTURAL HISTORICAL CONTEXT

The island of Maui ranks second in size of the eight main islands in the Hawaiian Archipelago. The island was formed by two volcanoes, Mount Kukui in the west and Haleakalā in the east. The younger of the two volcanoes, Haleakalā, soars 2,727 m (10,023 feet) above sea level and embodies the largest section of the island. Unlike the amphitheater valleys of West Maui, the flanks of Haleakalā are distinguished by gentle slopes. Although it receives more rain than its counterpart in the east, the permeable lava flows of the Honomanū and Kula Volcanic Series prevent the formation of rain-fed perennial streams. The few perennial streams found on the windward side of Haleakalā originate from springs located at low elevations. Valleys and gulches were formed by intermittent water run-off. The environment factors and resource availability heavily influenced pre-Contact settlement patterns. Although an extensive population was found occupying the uplands above the 30-inch rainfall line where crops could easily be grown, coastal settlement was also common (Kolb et al. 1997). The existence of three fishponds at Kalepolepo
and at least two heiau (shrine, temple, place of worship) identified near the shore confirm the presence of a stable population relying mainly on coastal and marine resources.

Agriculture may have been practiced behind the dune berms in low-lying marshland or in the vicinity of Keālia Pond, to the north of the current project area. It is suggested that permanent habitation and their associated activities occurred from A.D. 1200 to the present in both the uplands and coastal region (ibid.).

Keālia Ponds appear to have had a spiritual importance for the ali`i of the time as well. Ashdown (1971:22-24) notes:

Keālia was the huge fishpond attributed to King Uni-a-Liloa after the death of Pi'ilani in Lahaina. It was called the pond of Ka-lepo-lepo because, in one story, Uni made his people carry him atop the huge akua stone which was to be placed at one part of the pond. The load was so heavy that the workmen dropped it and the king fell into the lepolepo (dirty water). Others have insisted that the great chief never did suffer such an indignity, like a commoner, but that the name should be Kalepa, meaning the fluttering of the flags of canoes there when the area was a port of call since ancient times.

PAST POLITICAL BOUNDARIES
Traditionally, the division of Maui’s lands into districts (moku) and sub-districts was performed by a kahuna (priest, expert) named Kalaiha`ōhia, during the time of the ali`i Kaka`alaneo (Beckwith 1979:383; Fornander places Kaka`alaneo at the end of the fifteenth century or the beginning of the sixteenth century [Fornander 1919-20, Vol. 6:248]). Land was considered the property of the king or ali`i `ai moku (the ali`i who eats the island/district), which he held in trust for the gods. The title of ali`i `ai moku ensured rights and responsibilities to the land, but did not confer absolute ownership. The king kept the parcels he wanted; his higher chiefs received large parcels from him and, in turn, distributed smaller parcels to lesser chiefs. The maka`āinana (commoners) worked the individual plots of land.

In general, several terms were used to delineate various land sections. A district (moku) contained smaller land divisions (ahupua`a), which customarily continued inland from the ocean and upland into the mountains. Extended household groups living within the ahupua`a were able to harvest from both the land and the sea. Ideally, this situation allowed each ahupua`a to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875:111). The `ili `aina or `ili were smaller land divisions next to importance to the ahupua`a and were administered by the chief who controlled the ahupua`a in which it was located (ibid:}
The mo`o`āina were narrow strips of land within an `ili. The land holding of a tenant or hoa `āina residing in an ahupua`a was called a kuleana (Lucas 1995:61). The project area is located in the ahupua`a of Ka`ono`ulu, which translated means literally “the desire for breadfruit” (Pukui et al. 1974:86).

TRADITIONAL SETTLEMENT PATTERNS

The Hawaiian economy was based on agricultural production and marine exploitation, as well as raising livestock and collecting wild plants and birds. Extended household groups settled in various ahupua`a. Within the ahupua`a, residents were able to harvest from both the land and the sea. Ideally, this situation allowed each ahupua`a to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875:111).

During the pre-Contact Period, there were primarily two types of agriculture, wetland and dry land, both of which were dependent upon geography and physiography. River valleys provided ideal conditions for wetland kalo (Colocasia esculenta) agriculture that incorporated pond fields and irrigation canals. Other cultigens, such as kō (sugarcane, Saccharum officinaruma), mai`a (banana, Musa sp.), and `uala (sweet potato, Ipomoea batatas) were also grown. This was the typical agricultural pattern seen during traditional times on all the Hawaiian Islands (Kirch and Sahlins 1992, Vol. 1:5, 119; Kirch 1985). Agricultural development on the leeward side of Maui was likely to have begun early in what is known as the Expansion Period (AD 1200–1400, Kirch 1985). According to Handy (1940: 159), there was “continuous cultivation on the coastal region along the northwest coast” of Maui. He writes:

On the south side of western Maui the flat coastal plain all the way from Kihei and Ma`alaea to Honokahua, in old Hawaiian times, must have supported many fishing settlements and isolated fishermen’s houses, where sweet potatoes were grown in the sandy soil or red lepo [soil] near the shore. For fishing, this coast is the most favorable on Maui, and, although a considerable amount of taro was grown, I think it is reasonable to suppose that the large fishing population, which presumably inhabited this leeward coast, ate more sweet potatoes than taro with their fish…. [ibid]

There is little specific information pertaining directly to Kihei, which was originally a small area adjacent to a landing built in the 1890s (Clark 1980). Presently, Kihei consists of a six-mile section along the coast from the town of Kihei to Keawakapu. Scattered amongst the agricultural and habitation sites were places of cultural significance to the kama`āina of the district.
including at least two heiau. In ancient times, there was a small village at Kalepolepo based primarily on marine resources. It was recorded that occasionally the blustery Kaumuku Winds would arrive with amazing intensity along the coast (Wilcox 1921).

There were several fishponds in the vicinity of Kihei: Waiohuli, Ka`ono`ulu-kai, and Kalepolepo Pond (Site 50-50-09-1288), which is also known by the ancient name of Kō`ie`ie Pond (Kolb et al. 1997). Constructed on the boundary between Ka`ono`ulu and Waiohui Ahupua`a, these three ponds were some of the most important royal fishponds on Maui. The builder of Kalepolepo and two other ponds (Waiohuli and Ka`ono`ulu-kai) has been lost in antiquity, but they were reportedly rebuilt at least three times through history, beginning during the reign of Pi`ilani (1500s) (ibid; Cordy 2000). Kalepolepo Pond is located to the west of the project area.

Oral tradition recounts the repairing of the fishponds during the reign of Kiha-Pi`ilani, the son of the great chief Pi`ilani, who had bequeathed the ponds to Umi, ruler of Hawai`i Island. Umi’s konohiki (land manager) ordered all the people from Maui to help repair the walls of Kalepolepo’s fishponds. A man named Kikau protested that the repairs couldn’t be done without the assistance of the menehune who were master builders (Wilcox 1921:66-67). The konohiki was furious and Kikau was told he would die once the repairs had been made. Ka`ono`ulu-kai was the first to be repaired. When the capstone was carried on a litter to the site, the konohiki rode proudly on top of the rock as it was being placed in the northeast corner of the pond. When it was time for repairs on Waiohuli-kai, the konohiki did the same. As the last pond, then known as Ka`ono`ulu-kai, was completed, the konohiki once again rode the capstone to its resting place. Before it could be put into position, the capstone broke throwing both the rock and konohiki into the dirt. The workers reportedly said “Ua konohiki Kalepolepo, ua eku i ka lepo,” or, “the manager of Kalepolepo, one who roots in the dirt” (ibid: 66). That night a tremendous storm threw down the walls of the fishponds. The konohiki implored Kikau to help him repair the damage. Kikau called the menehune who rebuilt the walls in one night. Umi sent for Kikau who lived in the court of Waipi`o Valley from then on. The region of Ka`ono`ulu-kai and Ka`ono`ulu-kai fishpond became known as Kalepolepo fishpond (ibid).

The Kalepolepo fishponds were rebuilt by Kekaulike, chief of Maui in the 1700s, at which time it supplied `ama`ama (mullet) to Kahekili II. Again, it was restored by Kamehameha I when he ruled as governing chief over Maui, and for the last time in the 1840s, when prisoners from Kaho`olawe penal colony were sent to do repairs (Kamakau 1961; Wilcox 1921). At this time, stones were taken from Waiohuli-kai pond for the reconstruction of Kalepolepo. It was here at Kalepolepo that Kamehameha I reportedly beached his victorious canoes after subduing the
Maui chiefs. The stream draining into Keālia pond (north of the project area) became sacred to royalty and kapu to commoners (Stoddard 1894).

Trails extended from the coast to the mountains, linking the two for both economic and social reasons. A trail known as the alanui or “King’s trail” built by Kihapi’ilani, extended along the coast passing through all the major communities between Lāhainā and Mākena, including Kihei. Kolb et al. (1997) noted that two traditional trails extended through Ka`ono`ulu. One trail, named “Kekuawaha`ula`ula” or the “red-mouthed god”, went from Kihei inland to Ka`ono`ulu. Another, the Kalepolepo trail, began at the Kalepolepo fishpond and continued to upland Waiohuli. These trails were not only used in the pre-Contact era, but were expanded to accommodate wagons bringing produce to the coast in the 1850s (Kolb et al. 1997:61).

WESTERN CONTACT

Early records, such as journals kept by explorers, travelers and missionaries, Hawaiian traditions that survived long enough to be written down, and archaeological investigations, have assisted in the understanding of past cultural activities. Unfortunately, early descriptions of this portion of the Maui coast are brief and infrequent. Captain King, Second Lieutenant on the Revolution during Cook’s third voyage briefly described what he saw from a vantage point of “eight or ten leagues” (approximately 24 miles) out to sea as his ship departed the islands in 1779 (Beaglehole 1967). He mentions Pu`u Ōla`i, south of Kihei, and enumerates the observed animals, thriving groves of breadfruit, the excellence of the taro, and describes the sugarcane as being of an unusual height. Seen from this distance and the mention of breadfruit suggest the uplands of Kīpahulu-Kaupo and `Ulupalakua were his focus.

In the ensuing years, LaPérouse (1786), Nathaniel Portlock and George Dixon, (also in 1786), sailed along the western coast, but added little to our direct knowledge of Kihei. During the second visit of Vancouver in 1793, his expedition becalmed in the Ma`alaea Bay close to the project area. (A marker commemorating this visit is located across from the Maui Lu Hotel). He reported:

The appearance of this side of Mowee was scarcely less forbidding than that of its southern parts, which we had passed the preceding day. The shores, however, were not so steep and rocky, and were mostly composed of a sandy beach; the land did not rise so very abruptly from the sea towards the mountains, nor was its surface so much broken with hills and deep chasms; yet the soil had little appearance of fertility, and no cultivation was to be seen. A few habitations were promiscuously scattered near the waterside, and the inhabitants who came off to us, like those seen the day before, had little to dispose of. [Vancouver 1984:852]
Archibald Menzies, a naturalist accompanying Vancouver stated, “…we had some canoes off from the latter island [Maui], but they brought no refreshments. Indeed, this part of the island appeared to be very barren and thinly inhabited” (Menzies 1920:102). According to Kahekili, then chief of Maui, the extreme poverty in the area was the result of the continuous wars between Maui and Hawai`i Island causing the land to be neglected and human resources wasted (Vancouver 1984:856).

THE MĀHELE

In the 1840s a drastic change in traditional land tenure resulted in a division, or Māhele, of island lands. This system of private ownership was based on western law. Many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kauikeaouli (Kamehameha III) was forced to establish laws changing the traditional Hawaiian economy to that of a market economy (Kuykendall Vol. I, 1938:145 footnote 47, 152, 165–6, 170; Daws 1968:111; Kelly 1983:45; Kame`eleihiwa 1992:169–70, 176).

Among other thing, foreigners demanded private ownership of land to insure their investments (Kuykendall Vol. I, 1938:138, 145, 178, 184, 202, 206, 271; Kame`eleihiwa 1992:178; Kelly 1998:4). Once lands were made available and private ownership was instituted the maka `āinana (commoners) were able to claim the plots on which they had been cultivating and living, if they had been made aware of the foreign procedures (kuleana lands, Land Commission Awards, LCA). These claims could not include any previously cultivated or presently fallow land, `okipū (on O`ahu), stream fisheries or many other resources necessary for traditional survival (Kelly 1983; Kame`eleihiwa 1992:295; Kirch and Sahlins 1992). The awarded parcels were called Land Commission Awards. If occupation could be established through the testimony of two witnesses, the petitioners were awarded the claimed LCA, issued a Royal Patent number, and could then take possession of the property (Chinen 1961:16). Fifty-five LCA claims were made for lands in Ka`ono`ulu, just to the west of the current project area (Figure 4). No claims were made for the current project area.

As western influence grew, Kalepolepo became the important provisioning area. Europeans were now living or frequently visiting the coast and several churches and missionary stations were established. A Mr. Halsed left medical school on the east coast of the continent to become a whaler and after marrying the granddaughter of Isaac Davis, settled in Kalepolepo on land given him by Kamehameha III (Kolb et al. 1997). His residence and store situated at Kalepolepo landing was known as the Koa House having been constructed of koa logs brought from the uplands of Kula. The store flourished due to the whaling and potato industry and provided an accessible port for exported produce. Several of Hawai`i’s ruling monarchs stayed at the Koa House, including
Kauikeaouli (Kamehameha III), Kamehameha the IV, Lot Kamehameha (V), and Lunalilo. After viewing the surroundings, Wilcox stated, “…Kalepolepo was not so barren looking a place. Coconut trees grew beside pools of clear warm water along the banks of which grew taro and ape…” (1921:67). However, by 1887 this had changed. Wilcox continues:

…the Kula mountains had become denuded of their forests, torrential winter rains were washing down earth from the uplands, filling with silt the ponds at Kalepolepo…ruins of grass huts [were] partly covered by drifting sand, and a few weather-beaten houses perched on the broad top of the old fish pond wall at the edge of the sea, with the Halstead house looming over them dim and shadowy in the daily swirl of dust and flying sand…” [ibid]

As early as 1828, sugar cane was being grown commercially on Maui (Speakman 1981:114). Sugar was established in the Makawao area in the late 1800s and by 1899, the Kihei Plantation Company (KPC) was growing cane in the plains above Kihei. In 1908, the Kihei Plantation was absorbed by the Hawaiian Commercial and Sugar Company (HC&SC); the new formed company continued cultivating what had been the KPC fields into the 1960s. In the 1890s a 200-foot-long wharf was constructed in Kihei at the request of Maui plantation owners and farmers and served inter-island boats for landing freight and shipping produce to Honolulu (Clark 1980). In 1927, Alexander and Baldwin became the agents for the plantation (Condé and Best 1973).

After the Japanese attack on December 7, 1941, The U.S. Navy established several military camps and training facilities on the shores of Maalaea Bay, including an amphibious tractor camp for training crews from the Fourth Marine Division. In the vicinity of the project area, the Navy established the Naval Amphibious Training and Experimental Base at Kama’ole Beach to train underwater demolition teams; adjacent to this base the Navy created a training center for beach parties and small boat crews (Bingham 1947:152-4). For training purposes the beaches of Wailea, Kama’ole, Kihei, and Maalaea were fortified and then assaulted by military personnel; at the end of the war these fortifications and training facilities were torn down (Clark 1980:45).
Figure 4. Map Showing Land Court Awards and Fish Ponds in Kalepolepo Town (Adapted from McDermott 2001:76).
After World War II, population on Maui and in the project area declined. A 1959 report for the Maui County Planning and Traffic Commission proposed the development of tourism on Maui to provide additional income and employment that would aid not only in maintaining its present population, but would also encourage future population growth (Community Planning, Inc. and R.M. Towill Corporation 1959). In 1970 Kihei was still characterized by diversified agriculture, mauka grazing lands, open space, homestead development, and dirt roads, with a population of approximately 1600 inhabitants. The creation of the Kihei Civic Development Plan in 1970 heralded the beginning of tourism along the coast of Maalaea Bay; the plan identified this region as significantly underutilized and proposed the development of extensive visitor accommodations and residential units. By 2005 population in the Kihei Region exceeded 25,000 inhabitants (Chris Hart and Partners, Inc. 2006: 11-12).

**PREVIOUS ARCHAEOLOGY**

A substantial number of archaeological investigations have been conducted since the 1980s near the present project area in the Kihei and Makena areas of Maui. A number of archaeological studies have been conducted in both upland and coastal Wailuku/Makawao District (Table 1); a much smaller number of studies (listed below) have been conducted in the vicinity of the project area (Figure 5).

Keau (1981) conducted an archaeological reconnaissance of a Kaonoulu beach lot for the Department of Parks and Recreations. This reconnaissance noted that, following a recent storm erosion, no cultural deposits were exposed in the coastal areas affected by the storm erosion (Keau 1981; McDermott 2001). The southernmost portion of this project lies within the current project area.

Neller (1982) conducted an archaeological reconnaissance at the Kalama County Beach Park. No archaeological features or other materials were present.

Kennedy (1986) conducted a preliminary archaeological inventory survey for the proposed Kihei Village Subdivision. The survey reported that the project area had been recently bulldozed and all the kiawe trees had been removed. No archaeological features or other materials were present.

Kennedy (1988) conducted archaeological monitoring for the Kihei Village Subdivision. No archaeological features or other materials were present.
Fredericksen et al. (1994) conducted an archaeological inventory survey and botanical survey report for the Kaonolulu light industrial project. This project is located east of the project area. During the survey 21 sites were discovered, tested, and described. However, only 20 sites received State Inventory of Historic Places (SIHP) numbers (50-10-3727 through -3746), which included the physical remains of traditional Hawaiian, ranching, and military-WWII land use. State Site -3746 (a petroglyph) was recommended for removal and reservation. No further work was recommended for the project area.

Donham (2002) conducted an underwater inventory survey of Koieie (Kalepolepo) Fishpond (Site 50-50-09-1288) in connection with the restoration efforts by `Ao`Ao O Na Loko `Ia O Maui and Fishpond `Ohana Restoration-Maui. The purpose of this project was to fulfill conditions specified by SHPD, pursuant to Hawai`i Administrative Rule Chapter 6E, for approval of State permits to restore certain structural features of the fishpond (Don Hibbard letter to Patrick Ryan, August 13, 2001). The focus of this project was to field check and verify the accuracy of the fishpond map that was produced by NRHP in 1995, locate and plot submerged features of the fishpond, conduct systematic sweeps of the interior of the fishpond and exterior areas, characterize and determine depth of deposits inside the pond, probing, and present descriptions and maps of all findings. The survey found a second alignment of large boulders with associated scattered boulders, north of the existing fishpond wall. This feature is thought to possibly represent an earlier footprint of the fishpond (Donham 2002:47). The metal detection survey encountered portable metal or concrete items that were most likely discarded during operations or during demolition of the U.S. Navy degaussing station (Donham 2002:42). This project recommended a program of on-call and periodic monitoring during the restoration of the fishpond. Future work in the general area of the fishpond should include further investigation of the submerged boulder to the north of the pond wall, located on county property (Donham 2002:51)

Allen (2005) conducted an archaeological survey and testing for the National Oceanic and Atmospheric Administration (NOAA) National Ocean Service Facility. During the project, two features were identified. The first feature was the remnant of a basalt stone paving, which was associated with the second, a disturbed firepit. Charcoal collected from the firepit was identified as *kiawe*, which was introduced to Hawai`i in 1828. Both features were associated with the 19th century village of Kalepolepo.

Bassford and Dega (2007) conducted an archaeological field inspection of the proposed Ho`onani Affordable Housing subdivision in Kihei. The purpose of the pedestrian survey was to assess the parcel for the presence or absence of surface features and deposits. No subsurface
testing was conducted during the Field Inspection. No archaeological features or other materials were present.

Finally, Andricci and Dega (2015) conducted Archaeological Monitoring just to the west (makai) of the current project area for a recycled water system expansion, similar to the current project. Monitoring did not lead to the identification of any historic properties. Silty loam, sand, and sandy clay dominated exposed soils in this project area. The soils throughout the project area remained consistent with that of moderately fine to medium textured subsoil, surface layer dark reddish brown silty clay loam, dark gray to black of fine silty black loam and very stony, which accords with the Foote et al. (1972) soil description for the area. Upper layer fill was common, as was somewhat disturbed sediment. However, much of the lower soils were natural and undisturbed. The lack of cultural materials occurring in these locations was attributed to a) sampling (where the trenches were placed for the construction), b) replacement of lines within older trenches that had been “cleaned out”, or c) limited previous activity in this area.
<table>
<thead>
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<td>Bassford and Dega 2007</td>
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Figure 5. USGS Map Showing Locations of Previous Archaeological Investigations in the Vicinity of the Project Area.
PROJECT AREA EXPECTATIONS

To summarize this background section, it appears slightly possible that prehistoric and/or historic cultural deposits could be documented during the current monitoring project. However, given much disturbance in the area during previous road and waterline, truncated cultural deposits are possible. There is, according to soil analysis (see above), no sand in the project area, mostly silty clay and silty clay loams, with many rocks and underlying bedrock. Fill layers, typically silty clay and base course, would also be expected.

There is slight expectation that traditional deposits dating from the c. A.D. 1400s (or even earlier), inclusive of signatures for habitation (*i.e.* subterranean hearths, possible living floors, postholes, subterranean alignments, and associated artifacts for food preparation tools, debitage of tool manufacture, and fishing tool kits) and midden (*i.e.*, consumption products such as fish remains, shell, and terrestrial remains) could be identified. Historic use of the parcel could be indicated by subsurface architecture, burning episodes, historic artifacts (such as metals and glass), and historic burials, among others. Overall, a great variety of site types varying from pre-Contact to historic times could potentially be identified in the project area, even in truncated form.

REASON FOR MONITORING

The numerous archaeological projects that have been conducted in the Kihei area have been important in determining the pre- and post-Contact period settlement patterns within the general project area (see Figure 5 and Table 1). Much of this research has demonstrated that significant cultural deposits, consisting of subterranean cultural strata, subsurface pit features, midden, artifacts, and human burials, are present in subsurface contexts in the area. Surface and subsurface features related to traditional and historic-period occupation, whether complete or partially truncated, have been documented in several of the area’s studies (see Previous Archaeology section above). The present monitoring work will provide an opportunity to more closely assess the presence/absence of significant cultural resources in the corridor, and if present, will allow for complete documentation of such resources. Data gleaned through this study should allow for contributing to the database of knowledge for the area, and for refining Kihei settlement pattern models.
MONITORING METHODOLOGY AND PROCEDURES

This Archaeological Monitoring Plan has been devised in accordance with DLNR-SHPD rules governing standards for Archaeological Monitoring (DLNR-SHPD 2003). The contracted archaeological consulting firm monitors will adhere to the following guidelines during monitoring:

1. A qualified archaeologist familiar with the project area and the results of previous archaeological work conducted in the area, will monitor subsurface construction activities on the parcel. If significant deposits or features are identified and additional field personnel are required, the archaeologist will notify the contractor or representatives before additional personnel are brought to the site. Please note that one Monitor is required for each piece of ground altering machinery.

2. If features or cultural deposits are identified during Archaeological Monitoring, the on-site archaeologist will have the authority to temporarily suspend construction activities at the significant location so that the cultural feature(s) or deposit(s) may be fully evaluated and appropriate treatment of the cultural deposit(s) is conducted. SHPD will be consulted to establish feature significance and potential mitigation procedures. Treatment activities primarily include documenting the feature/deposit through plotting its location on an overall site map, illustrating a plan view map of the feature/deposit, profiling the deposit in three dimensions, photographing the finds (with the exception of human burials), artifact and soil sample collection, and triangulation of the finds. Construction work will only continue in the significant location when all documentation has been completed.

3. Control stratigraphy in association with subsurface cultural deposits will be noted and photographed, particularly those containing significant quantities or qualities of cultural materials. If deemed significant by SHPD and the contracting archaeologist, these deposits will be sampled.

4. In the event that human remains are encountered, all work in the immediate area of the find will cease; the area will be secured from further activity until burial protocol has been completed. The SHPD island archaeologist and SHPD-Culture History branch will both be immediately notified about the inadvertent discovery of human remains on the property. Notification of the inadvertent discovery will also be made to the Maui/Lanai Island Burial Council by the SHPD. A determination of minimum number of individuals (MNI), age(s), and ethnicity of the burial(s) will be ascertained in the field by archaeologists, following standard osteological procedures (e.g., White 2000). Rules outlined in Chapter 6E, Section 43 shall be followed. Profiles, plan view maps, and illustrative documentation of skeletal parts will be recorded to document the burial(s). The burial location will be identified and marked. If a burial is disturbed, materials excavated from the vicinity of the burial(s) will be manually screened through 1/8-inch wire mesh screens in order to recover any displaced skeletal material. If the remains are to be removed, the work will be in compliance with HRS 6.E-43.6, Procedures Relating to Inadvertent Discoveries after approval from all parties (SHPD, Burial Council).
5. To ensure that contractors and the construction crew are aware of this AMP and possible site types to be encountered on the parcel, a brief coordination meeting will be held between the construction personnel and monitoring archaeologist prior to initiation of the project. The construction crew will also be informed as to the possibility that human burials could be encountered and how they should proceed if they observe such remains.

6. The archeologist will provide all coordination with the contractor, SHPD, and any other group involved in the project. The site archaeologist will also coordinate all monitoring and sampling activities with the safety officers for the contractors to ensure that proper safety regulations and protective measures meet compliance. Close coordination will also be maintained with construction representatives in order to adequately inform personnel of the possibility that open archaeological units or trenches may occur in the project area.

7. As necessary, verbal reports will be made to SHPD and any other agencies as requested.

LABORATORY ANALYSIS

All samples collected during the project, except human remains, will undergo analysis at the contracted archaeological consulting firm. In the event that human remains are identified and the SHPD authorizes their removal, these remains and all associated cultural materials will be curated at an appropriate location on Maui. Photographs, illustrations, and all notes accumulated during the project will be curated at the contracted archaeological consulting firm. All retrieved artifact and midden samples will be sent to the contracted archaeological consulting firm to be cleaned, sorted, and analyzed. Significant artifacts will be photographed, sketched, and classified (qualitative analysis). All metric measurements and weights will be recorded (quantitative analysis). These data will be presented in tabular form within the final monitoring report. Midden samples will be minimally identified to major class (e.g., bivalve, gastropod mollusk, echinoderm, fish, bird, and mammal). All data will be clearly recorded on standard laboratory forms which also include number and weight (as appropriate) of each constituent category. These counts will also be included in the final report.

Should any samples amenable to dating be collected from a significant cultural deposit, they will be prepared in the contracted archaeological consulting firm and submitted for specialized radiocarbon analysis. While primary emphasis for dating is placed on charcoal samples, we do not preclude the use of other materials such as marine shell or nonhuman bone materials. The contracted archaeological consulting firm will consult with SHPD and the client if radiocarbon dates are deemed necessary.
All stratigraphic profiles will be drafted for presentation in the final report. Representative plan view sketches showing the location and morphology of identified sites/features/deposits will be compiled and illustrated.

CURATION

The contracted archaeological consulting firm will curate all recovered materials, except for human remains, which would remain on-site, until a permanent, more suitable curation locale is identified. The land owner(s) may request to curate all recovered materials once analysis has been completed.

REPORTING

An Archaeological Monitoring report documenting the project findings and interpretation, following SHPD guidelines for Archaeological Monitoring reports, will be submitted within 180 days of the completion of fieldwork. This time line is requested to account for any radiocarbon age determinations (typically 60 days), if necessary.

If cultural features or deposits are identified during fieldwork, the sites will be evaluated for historical significance and assessed under State and Federal Significance Criteria. The Archaeological Monitoring report will be drafted until accepted by SHPD and will be submitted to both SHPD and to the client.

REFERENCES


District, Island of Maui, Hawai`i [TMK:(2) 3-9-01: 007]. Scientific Consultant Services, Inc., Honolulu.

Beaglehole, John, Ed.

Beckwith, Martha

Bingham, Kenneth E.

Brown, Rodericks S.

Brown, Rodericks S. and Alan E. Haun with Helen Wong Smith
1989 *Archaeological Inventory Survey of 22.25 acres of Land in Kula, Kaonoulu Ahupua`a Makawao District, Island of Maui (TMK 2-2-02:55, 56) , PHRI, Hilo.*

Chaffee, David, Berdena B. Burgett, Mike T. Carson, and Robert L. Spear

Chinen, Jon

Chris Hart and Partners, Inc.

Clark, John

Community Planning, Inc. and R.M. Towill Corporation.

Condé, Jesse, and Gerald Best  

Cordy, R.  


Cox, D.  

Daws, G.  

Donham, Teresa K  
1989  Archaeological Inventory Survey Piilani Residential Community – Phase I, Land of Waiohuli, Makawao District, Island of Maui, PHRI, Hilo, HI.

1990a  Archaeological Data Recovery Program, Site 50-50-10-2475, Piilani Residential Community – Phase I, Land of Waiohuli, Makawao District, Island of Maui, (TMK 2-2-02: Por. 42), PHRI, Hilo, HI.

1990b  Archaeological Inventory Survey, Piilani Residential Community, Phase II, Land of Kēōkea, Makawao (Wailuku) Districts, Island of Maui (TMK 2-2-02:42 Por.), PHRI, Hilo, HI.

2002  *Underwater Archaeological Inventory Survey of Kā`ie`ie Fishpond, K`ono`ulu Ahupua‘a, Kula District, Maui*. Akahele Aechaeology.

Foote, D. E., E. L. Hill, S. Nakamura, and F. Stephens  

Fornander, Abraham  

Fredericksen, Erik M. and Demaris L. Fredericksen
1995a  *Inventory Survey Report for Road “C” Corridor, Waiohuli Ahupua`a, Makawao and Wailuku districts, Maui Island (TMK 2-2-02:Por. 66, 67.,3-9-02:108).*

1995b  *Data Recovery Report for Site 50-50-10-3529 in the Road “C” Corridor, Waiohuli Ahupua`a, Makawao Districts, Maui Island (TMK 2-2-02:67).*

Fredericksen, Erik M., Demaris L. Fredericksen and Walter M. Fredericksen 1994  *Archaeological Inventory Survey and Botanical Survey Report, Kaonoulu Ahupua`a, Wailuku and Makawao Districts, Island of Maui (TMK 3-9-01:16 and 2-2-02 Por. 15)*

Hammatt, H. H. and D. W. Shideler 2000  *Archaeological Inventory Survey for Fuji Chemical Industry Co., LTD.’s 4.75-Acre Algae Farm Site in Ka`ono`ulu Ahupua`a (Kihei), District of Makawao, Island of Maui (TMK:2-2-02: Por 42).* Cultural Surveys Hawaii, Kailua, HI.


Keau, Charles 1981  Archaeological Reconnaissance for Kaonoulu Beach Lot, Department of Parks and Recreation, Country of Maui, Waikuku, HI.


Kennedy, Joseph
1986  Preliminary Inventory Survey for the Proposed Kīhei Village Subdivision TMK 3-8-14:19. Archaeological Consultants of Hawaii (Waikapu)


Kennedy, J., and M.B. Maigret-Breithaupt

Kikiloi, S., D. Shideler, and H.H. Hammatt
2000  Archaeological Inventory Survey for the Expanded 20-Acre Algae Farm Site, Ka`ono`ulu Ahupua`a, District of Makawao, Island of Maui (TMK 2-2-02: por 42). Document of file with SHPD, Kapolei, HI.

Kirch, Patrick

Kirch, Patrick V. and Marshall Sahlins

Kolb, Michael J., Patty J. Conte, Ross Cordy (eds.)

Kuykendall, R. S.

La Perouse, J.S.G.

Lucas, Paul F. Nahoa

Lyons, C.J.
1875  Land Matters in Hawaii. Islander, Honolulu.

McDermott, M., D. Shideler, and H.H. Hammatt

McDermott, M.
2001  Archaeological Inventory Survey for the Proposed Pi`ilani Mauka Detention
Basin No.1, Waiohuli Ahupua’a (Kihei), District of Makawao, Island of Maui (TMK 2-2-024: por 14). Cultural Surveys Hawai‘i, Inc. On file at SHPD, Kapolei, HI.


Menzies, Archibald

Miura, M.
1982 Biological and Archaeological Reconnaissance, TMK:2-2-02:42, Kihei, Maui, Hawai‘i. Environmental Impact Study Corporation, Maui and Honolulu, HI.

Neller, Earl
1982 An Archaeological Reconnaissance at the Kalama Country Beach Park, Kama‘ole, Maui, State Historic Preservation Office, Honolulu, HI.

Pukui, M.K., S. Elbert, and E.T. Mookini

Sinoto, A., L. Rotunno-Hazuka, and J. Pantaleo

Speakman, C. E.

Stoddard, Charles W.

Riford, M.F.

Vancouver, G.
Wilcox, C

Watanabe, F.
1987 Archaeological Reconnaissance of Three Parcels in Maui County Being Considered for Use with the Relay Mirror Experiment.
April 19, 2016

Michael F. Dega, Ph.D.
Scientific Consultant Services, Inc.
1347 Kapiohi Blvd., Ste 408
Honolulu, Hawaii 96814
Via email to: mike@scshawaii.com

Aloha Dr. Dega:

SUBJECT: Chapter 6E-8 Historic Preservation Review -
Draft Archaeological Monitoring Plan for the Kulanihakoi Street Waterline
Waiohuli Ahupua'a, Wailuku District, Island of Maui
TMK (2) 2-2-025, 3-9-001 and 3-9-044 (all pars. of 999)

Thank you for the opportunity to review the draft plan titled An Archaeological Monitoring Plan for the Kulanihakoi Street Recycled Waterline Extension Project No. WW-15-02... (Dega March 2016), which we received on March 7, 2016. The County of Maui determined that archaeological monitoring is appropriate for this project and we concur with that assessment. The plan was prepared at the request of Fukushima Engineering, Inc. in advance of the planned extension of a recycled waterline project through Kulanihakoi Street in Kīhei.

An archaeological inventory survey was not conducted on this location, which has been developed. A number of historic properties have been identified in the immediate area.

The draft monitoring plan meets the requirements specified in Hawai‘i Administrative Rule §13-279 and is accepted.

For the final version, please correct the TMK location in the plan footer, and remove the reference to an Appendix A which is not part of this plan. A report will be submitted to SHPD for review and approval within 180 days of the completion of monitoring. Please send one hardcopy of the document, clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns about this letter.

Mahalo,

Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
Planning@co.mau.hi.us

Fukumoto Engineering, Inc.
1721 Will Pa Loop, Ste 203
Wailuku, Hawaii 96793
### SECTION 106 CONSULTATION

**Stakeholder Distribution List**

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<td>Ke'eaumoku Kapu</td>
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<td>P. O. Box 11524</td>
<td></td>
<td>Lahaina, HI 96761</td>
<td>(808) 250-1479</td>
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<td>President</td>
<td>P. O. Box 1135</td>
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<td>Mr. Leslie Apiu</td>
<td>Kuloloio Kupunakâne</td>
<td>469 Ma'alo Street</td>
<td>Kahului, HI 96732</td>
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<td>Dr. Kamana opono</td>
<td>Chief Executive Officer</td>
<td>560 N/ Nimitz Highway - Suite 200</td>
<td>Honolulu, HI 96817</td>
<td>(808) 594-1835</td>
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<tr>
<td>6 Department of Hawaiian Home Lands</td>
<td>Jobie Masagatani</td>
<td>Chair</td>
<td>P.O. Box 1879</td>
<td>Honolulu, HI 96805</td>
<td>(808) 620-9501</td>
<td></td>
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<tr>
<td>7 Hawaii Maoli</td>
<td>Maile Alau</td>
<td>Executive Director</td>
<td>P.O. Box 3866</td>
<td>Honolulu, HI 96812</td>
<td>(808) 394-0050</td>
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<tr>
<td>8 Historic Hawaii Foundation</td>
<td>Kiersten Faulkner</td>
<td>Executive Director</td>
<td>680 Iwilei Road</td>
<td>Dole Office Building Tower, Suite 690</td>
<td>Honolulu, HI 96817</td>
<td>(808) 523-2900</td>
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<tr>
<td>9 Maui County Cultural Resources Commission</td>
<td>c/o County of Maui, Department of Planning</td>
<td></td>
<td>2200 Main Street, Suite 315</td>
<td>Wailuku, HI 96793</td>
<td>(808) 270-7735</td>
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<td>10 Maui/Lanai Island Burial Council</td>
<td>Kapulani Antonio</td>
<td>Chair</td>
<td>c/o State Historic Preservation Division</td>
<td>601 Kamokila Boulevard, Suite 555</td>
<td>Kapolei, HI 96707</td>
<td>(808) 692-8015</td>
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<tr>
<td>11 Na Kupuna O Maui</td>
<td>Patty Nishiyama</td>
<td></td>
<td>320 Kaeo Place</td>
<td>Lahaina, HI 96761</td>
<td>(808) 667-4068</td>
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<tr>
<td>12 State Historic Preservation Division</td>
<td>Alan Downer</td>
<td>Administrator</td>
<td>601 Kamokila Boulevard, Suite 555</td>
<td>Kapolei, HI 96707</td>
<td>(808) 692-8015</td>
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<tr>
<td>13 Grand Wailea Resort</td>
<td>Kainoa Horcajo</td>
<td>Hawaiian Cultural Ambassador</td>
<td>3850 Wailea Alanui Drive</td>
<td>Kihei, HI 96753</td>
<td>(808) 875-1234</td>
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