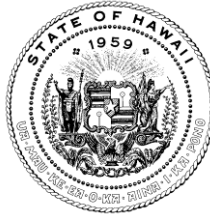


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DEPARTMENT OF LAND AND NATURAL RESOURCES

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August 31, 2018

Valerie Suzuki
Department of Land and Natural Resources
Engineering Division
P.O. Box 373
Honolulu, HI 96809

IN REPLY REFER TO:
Log No. 2018.01687
Doc. No. 1808JA06
Archaeology

Dear Ms. Suzuki:

**SUBJECT: Chapter 6E-8 and National Historic Preservation Act (NHPA) Section 106 Review –
Addendum Archaeological Monitoring Plan for the
Waimea River Mouth Maintenance Project
Waimea Ahupua‘a, Waimea District, Island of Kaua‘i
TMK: (4) 1-2-006:003, 017; 1-2-013:001, 039, 040, 041; 1-6-006:001, 003**

This letter provides the State Historic Preservation Division's (SHPD's) review comments concerning the revised draft *Addendum Archaeological Monitoring Plan for the Waimea River Mouth Maintenance Project, Waimea Ahupua‘a, Waimea District, Island of Kaua‘i*. TMK: (4) 1-2-006:003, 017; 1-2-013:001, 039, 040, 041; 1-6-006:001, 003 (Tomonari-Tuggle, July 2018). Our office received this submittal on July 18, 2018. This draft addresses the revisions requested in SHPD's earlier review (June 22, 2018; Log No. 2018.00928, 1806JA03). This document is an addendum to the Hammatt and Shideler (2014) AMP, which was accepted by SHPD in a letter dated April 10, 2014 (Log No. 2014.01582, Doc. No. 1404SL07).

International Archaeology, LLC, (IA) at the request of EKNA Services, Inc. prepared the subject addendum archaeological monitoring plan on behalf of the project proponent, the State of Hawaii Department of Land and Natural Resources (DLNR) Engineering Division, Division of Boating and Ocean Recreation (DOBOR). The overall project area, totaling 4.13 acres, includes two separate areas, the eastern, 2.88-acre "borrow site," and the western, 1.25-acre "fill site." The State is the landowner for the eastern area, and also owns the seaward portions of the five western TMK parcels that comprise the fill site. While the larger portion of each of the five western parcels is privately owned, the State is the landowner for the coastal band between the vegetation line and the ocean.

The proposed project requires a permit from the U.S. Army Corps of Engineers (USACE) and is therefore also a federal undertaking. The Area of Potential Effect (APE) includes the entire project area, including both the borrow and fill areas. Historic-preservation review of the project includes review for compliance with Hawaii Revised Statutes (HRS) Chapter 6E-8, Hawaii Administrative Rules (HAR) §13-275 and HAR §13-279-4, National Historic Preservation Act (NHPA) Section 106, and the National Environmental Policy Act (NEPA).

The borrow site, the Waimea River Mouth Maintenance site (TMK: [4] 1-6-006:001, 003), includes a sand bar in the Waimea River mouth and an access area onshore on the west side of the river mouth. Sand will be dredged from an approximately 76-meter (m; 250-foot [ft.]) segment of the sand bar. Dredging will reach either the natural river bed or a 1.2-m (4-ft.) depth. The dredged material will be dewatered and cleaned in a containment area to be set up at the borrow site; access to the borrow site will be through the existing Lucy Wright Park parking lot.

The fill site, the Kīkīaola Small Boat Harbor Sand Bypass site, consists of the seaward edges of five TMK parcels (TMK: [4] 1-2-006:003; 1-2-013:001 and 039-041) along Kīkīaola Beach, west of the harbor. Trucks will transport the cleaned sand from the borrow site westward along Alawai Road, through Lucy Wright Park, and along

Kaumuali'i Highway and the harbor access road. From the seaward end of the access road, a construction track will be created to continue west to the sand fill site, crossing an existing irrigation ditch on a temporary bridge. Sand will be discharged onto the severely eroding sand berm along the beach until the accumulated sand reaches a height above the Mean Higher High Water (MHHW) Line. The proposed project will create or construct stockpiling and staging areas in the east and west, and the temporary bridge in the west.

The addendum AMP was prepared in response to SHPD's September 27, 2017, letter (Log No. 2017.01805, Doc. No. 1709GC06) commenting on two submitted documents: *Application for Department of the Army Permit, (33 CFR 325), Waimea River Mouth Maintenance PreConstruction Notification for GP2011-011* (EKNA for DLNR Engineering Division); and *Federal Public Notice Extension of General Permit 2011-001 for Maintenance Clearing of Rivers, Streams, Storm Drains and Beach Areas in the State of Hawaii* (Honolulu District, U.S. Army Corps of Engineers, Regulatory Branch). SHPD's letter lists the following (summarized) requirements for inclusion in the addendum AMP:

- Detailed description of the project scope of work, and project maps showing entire project area/APE (including transport routes, sand-stockpiling areas, equipment storage or stockpiling areas) for all portions of the project area;
- Stipulation that on-site archaeological monitoring shall be conducted during the sand-fill portion of the project;
- Requirement that photographic documentation be provided before project begins to verify that all temporary protection measures are in place as specified in the existing AMP;
- Stipulation that one archaeological monitor will follow each piece of heavy equipment;
- Stipulation that, if non-burial historic properties are identified, SHPD shall be notified of the find and consulted regarding documentation, assessment of significance, and treatment; and
- Stipulation that, if human remains are identified, work will cease in the vicinity, SHPD will be notified, and compliance with procedures outlined in HAR §13-300-40 and SHPD directives shall be followed.

The overall project has been referred to by two names: the Kīkīāola Small Boat Harbor Sand Bypass Project (e.g., 2014 AMP), and the Waimea River Mouth Maintenance Project. Correspondence in SHPD's files helps to explain project plans for all portions of the overall project area. The following is a partial list of letters on file.

- February 4, 2014, letter from SHPD (Log No. 2013.7181, Doc. No. 1401GC26) commenting on permit application from DLNR, Engineering Division, Division of Boating and Recreation (DOBAR) for the Kīkīāola Sand Bypass project. Letter summarizes contents of three earlier SHPD letters: December 19, 2000, letter (Log No. 26391, Doc. No. 0010NM15) requesting archaeological inventory survey (AIS) for this and related projects (none completed previously); May 10, 2001, letter (Log No. 27430, Doc. No. 0105NM02) recommending AIS with testing in sand areas with potential for burials and cultural deposits; and July 25, 2001, letter (Log No. 27887, Doc. No. 0107NM04) recommending AIS and monitoring, especially in sand deposits.
- February 11, 2014, letter from SHPD (Log No. 2013.7180, Doc. No. 1401GC27) commenting on DLNR's permit application for breakwater-root repairs at the Kīkīāola Small Boat Harbor. Letter requests AIS of the entire APE, and clear definition of the APE before the AIS begins.
- March 21, 2014, letter from SHPD (Log Nos. 2014.00581 and 2014.00896, Doc. No. 1403SL20) responding to USACE, commenting on DLNR's proposal to excavate and transport sand from borrow areas within the State-owned beach easement east of Kīkīāola Small Boat Harbor, transport the excavated sand across a property that was privately owned at the time (TMK: (4) 1-2-006:003), deposit the excavated sand in several fill areas within the State-owned beach easement west of the harbor, and repair the west breakwater at the Kīkīāola Small Boat Harbor. Letter summarizes USACE's position that these activities will have no adverse effect on historic or cultural resources (also see next letter) and SHPD's determination that potential exists for adverse effects to historic properties, and requests AIS in area inland from the State-owned beach easement or, if AIS not feasible, agreed-upon temporary protection measures and weekly monitoring.

- April 4, 2014, letter from SHPD (Log Nos. 2014.00581 and 2014.00896, Doc. No. 1404SL04) thanking USACE for submitting for review USACE's revisions to DLNR's application for the Kīkīaola Sand Bypass project. Letter summarizes USACE's assertion that the project will have no adverse effect on historic or cultural resources and USACE's request for mitigation in the forms of archaeological monitoring and specific construction procedures. Following consultation, SHPD concurs with USACE effect determination and with plan for mitigation in the form of monitoring, instead of AIS. Letter reviews mitigation plans, which include archaeologically monitored installation of temporary protective barriers at the borrow (east) site and the sand-fill (west) site including the eroding area; preparation of an AMP; on-site monitoring; and possible later reduction (following consultation with SHPD) to weekly and spot monitoring.
- April 4, 2014, letter from SHPD (Log No. 2014.01582, Doc. No. 1404SL07) accepting project AMP and lists procedures where AMP requires on-site monitoring: installation of protective barriers and markers and the staging/storage staging/storage area, construction of the temporary bridge, testing of the borrow excavation locations and procedures, and establishing sand-deposition procedures. These activities are expected to take 1-2 weeks. Once they are completed, and a layer of sand has been deposited in the sand-fill area, it is anticipated that monitoring may switch to weekly spot-monitoring, later to on-call monitoring with written concurrence from SHPD.
- August 7, 2014, letter from SHPD (Log No. 2014.02808, Doc. No. 1408MN02) documenting a site visit, which established that some sand had already been applied to the severely eroding west area. No historic properties were encountered. Letter requests intermittent monitoring in the west area instead of on-site and weekly monitoring.
- September 27, 2017, letter from SHPD (Log No. 2017.01805, Doc. No. 1709GC06) commenting on the two federal documents cited earlier (USACE permit application for Waimea River mouth project, and public-notice extension regarding maintenance clearing of bodies of water and beaches in Hawai'i). As explained above, SHPD requests preparation of this addendum.

No archaeological properties have been documented within either the east or west portion of the project area. In the east, no monitoring is planned, as the project will not disturb the ground surface in any area except the sand bar within the river mouth; no subsurface sites are expected to be affected. Fort Elizabeth, a Russian fort, in a park northeast of the borrow site, is located on a bluff above the project area and will not be affected.

The revised addendum AMP reviews the archaeological investigations that have been conducted previously within 1 kilometer (km) of the western fill site, and six archaeological sites that have been documented within that radius. Hammatt and Chiogioji (1996), during a field inspection of a large area just inland from the current project area, documented the historical Japanese Cemetery (State Inventory of Historic Places [SIHP] Site 50-30-05-0612) and Park Hook Tong Chinese Cemetery (SIHP Site 50-30-05-0613) north of the east end of the sand-fill site. Hammatt and Shideler (2014) document four additional historic properties, all isolated or clustered burials: SIHP Sites 50-30-05-02098, 03881, 03911, and 03941.

Full-time archaeological monitoring will be conducted during all phases of work in the sand-fill area, including staging/storage-area installation and temporary bridge construction in the area between the harbor access road and the sand-fill site; and sand deposition along the beach berm. The monitor will attend a pre-construction meeting to explain the reasons for monitoring, monitoring procedures, and how to proceed when cultural deposits or human skeletal remains are encountered. The monitor will explain that he/she has the authority to halt work in the immediate area temporarily when human skeletal remains or cultural discoveries are made.

The sensitivity of the two cemeteries will be emphasized. Before the project begins, high-visibility plastic tape or fencing will be installed along the seaward boundaries of both cemeteries, to mark them clearly and protect them from damage during use of the transportation route by sand-deposition equipment. All in-place protective measures will be documented photographically before work begins.

If non-burial historic properties are identified, work will cease temporarily in the immediate area, as needed, and SHPD shall be notified of the find and consulted regarding documentation, significance assessment, and treatment of

Ms. Suzuki
August 31, 2018
Page 4

the property. If human remains are uncovered, work shall cease in the vicinity, SHPD shall be notified, and compliance with procedures outlined in HAR §13-300-40 and SHPD directives shall be followed. Monitoring procedures will include those procedures stipulated by Hammatt and Shideler (2014) and that remain appropriate for the project as it is currently planned.

The revisions requested in our previous correspondence (June 22, 2018; Log No. 2018.00928, 1806JA03) have been adequately addressed. This addendum AMP satisfies the requirements of HAR §13-279-4. **It is accepted.** Please send two hard copies of the document, clearly marked FINAL, along with a text-searchable PDF version, to the Kapolei SHPD office, attention SHPD Library.

SHPD requests written notification at the initiation and conclusion of archaeological monitoring. After the archaeological fieldwork and laboratory analyses have been completed, **SHPD looks forward** to reviewing an archaeological monitoring report meeting the requirements of HAR §13-279-5.

Please contact Dr. Jane Allen at (808) 692-8027 or by email at jane.allen@hawaii.gov if you have any questions, or if we can be of assistance.

Aloha
Alan Downer

Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

cc: Myra J Tomonari-Tuggle, IA (mjtuggle@iarii.org)
Timothy Rieth, IA (trieth@internationalarchaeologyllc.com)



July 17, 2018

Dr. Susan Lebo
Archaeology Branch Chief
State Historic Preservation Division
601 Kamokila Boulevard, Room 555
Kapolei, Hawai'i 96707

SUBJECT: Addendum Archaeological Monitoring Plan for the Waimea River Mouth Maintenance Project, Waimea Ahupua'a, Waimea District, Island of Kaua'i. TMK: (4) 1-2-006:003, 017; 1-2-013:001, 039, 040, 041; 1-6-006:001, 003.

Dear Dr. Lebo:

Per the meeting with International Archaeology, LLC (IA) archaeologist Trever Duarte on November 15, 2017, IA is submitting this letter report addendum to the *Archaeological Monitoring Plan for the Kikīaola Small Boat Harbor Sand Bypass Project, Waimea Ahupua'a, Waimea District, Kaua'i*; TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050, prepared by Cultural Surveys Hawai'i (Hammatt and Shideler 2014). The addendum outlines required monitoring protocols for the Waimea River Mouth Maintenance Project, proposed by the Department of Land and Natural Resources (DLNR). This addendum addresses State Historic Preservation Division (SHPD) review comments on a previous submittal (letter to Valerie Suzuki, Log No. 2018.00928/Doc No. 1806JA03, dated June 22, 2018).

BACKGROUND

At the request of EKNA Services, Inc., on behalf of the DLNR, IA has prepared an addendum archaeological monitoring plan (AMP) in support of the Waimea River Mouth Maintenance Project. The project will encompass 4.13 acres in two parcels, a borrow site (2.88 acres) and a sand fill site (1.25 acres); both locations fall within Waimea Ahupua'a, Waimea District, on the southwest coast of Kaua'i (Figure 1). The eastern borrow portion of the project area lies within the Waimea River mouth, southeast of the urban/suburban center of Waimea (TMK: [4] 1-6-006:001, 003); the State of Hawai'i is the landowner. The western sand fill portion of the project area is west of the Kikīaola Small Boat Harbor; only the seaward edges of five privately owned parcels (TMK: [4] 1-2-013:001, 039, 040, 041, and 1-2-006:003) fall within the project area. The State of Hawai'i owns the small boat harbor and adjacent coastline (TMK: [4] 1-2-006:017). The maintenance project is being carried out by the DLNR, Engineering Division.

As the proposed maintenance project is defined as both a Federal and State undertaking, the addendum AMP is consistent with requirements specified by Section 106 of the National Historic Preservation Act (NHPA), National Environmental Policy Act (NEPA), and the Hawai'i Revised Statutes (HRS) Chapters 6E-8 and Hawai'i Administrative Rules (HAR) §13-275 and §13-279-4.

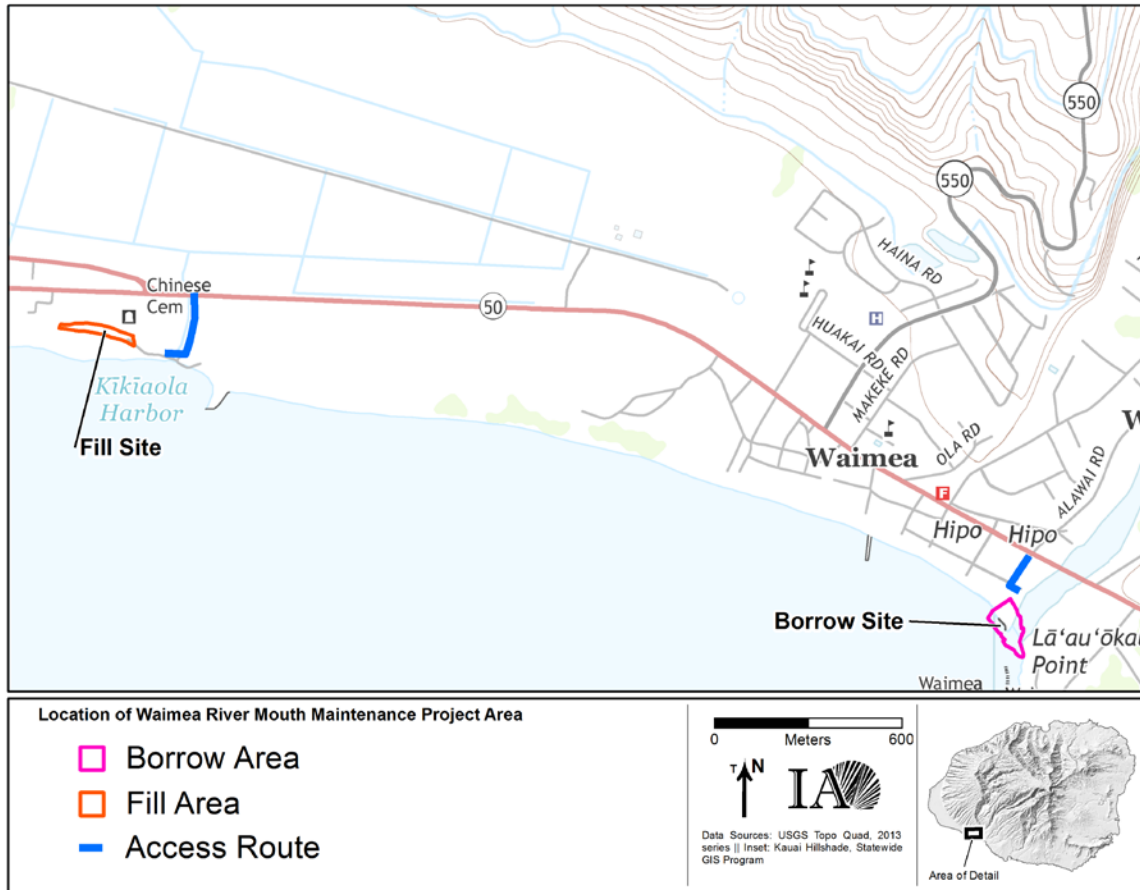


Figure 1. Location of the Waimea River Mouth Maintenance project area depicting all portions of the project including the borrow and fill sites and access routes.

PROJECT DESCRIPTION

The DLNR maintenance project will entail the dredging of approximately 76 m (250 ft) of the sand bar plugging the mouth of the Waimea River (Figure 2), and deposition of the sand along the eroding Kīkīaola Beach, west of Kīkīaola Small Boat Harbor (Figure 3). Dredging will extend to the depth of the natural river bed or up to 1.2 m (4 ft). The dredged material will be processed in a containment area at the west edge of the borrow parcel (within the sand berm); access to the borrow site will be through the present parking lot of Lucy Wright Park. The clean and dewatered sand will be transported by truck along Ala Wai Road and Lucy Wright Park to the fill site, via Kaunuali'i Highway and the Kīkīaola Small Boat Harbor access road. From the seaward end of the harbor road, a construction track will extend west to the sand fill site, crossing an existing irrigation ditch by a temporary bridge. Sand will be discharged on to the sand embankment to a height above the Mean Higher High Water (MHHW) Line. All fill will be placed on the seaward side of the existing sand berm.

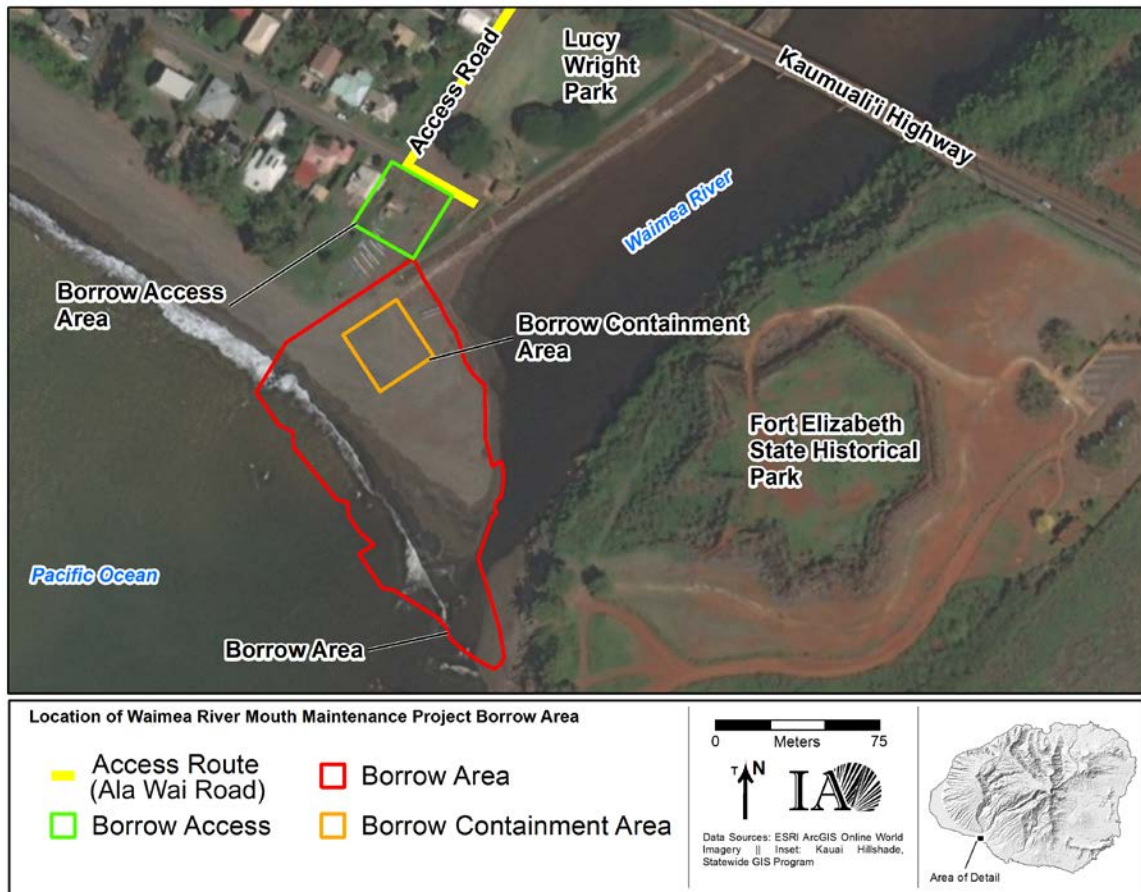


Figure 2. The borrow site for the Waimea River Mouth Maintenance Project Area.

SHPD PROJECT REVIEW

In a review letter for the proposed maintenance project (Log No. 2017.01805, Doc. No. 1709GC06; see attached), the SHPD identified two sites adjacent to the project area, both in the vicinity of the western sand fill area (in TMK [4]-1-2-006:004): the Waimea Japanese Cemetery (SIHP 50-30-05-0612) and the Park Hook Tong Chinese Cemetery (SIHP 50-30-05-0613). The cemeteries are contiguous, with the Chinese area to the west and the Japanese area to the east. Due to the proximity of the proposed work to both cemeteries, SHPD requested in its review letter that archaeological monitoring be carried out for the sand fill portion of the project area.

The SHPD letter notes that an AMP titled *Archaeological Monitoring Plan for the Kikāiola Small Boat Harbor Sand Bypass Project, Waimea Ahupua‘a, Waimea District, Kaua‘i*, TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050, by Cultural Surveys Hawai‘i, Inc. (Hammatt and Shideler 2014) was prepared in support of the Kikāiola Small Boat Harbor Sand Bypass Project and was accepted by SHPD on April 10, 2014 (Log No. 2014.01582, Doc No. 1404SL07). The SHPD requested that an addendum to the existing AMP be prepared to cover the present proposed work, provided that the addendum includes the following provisions:

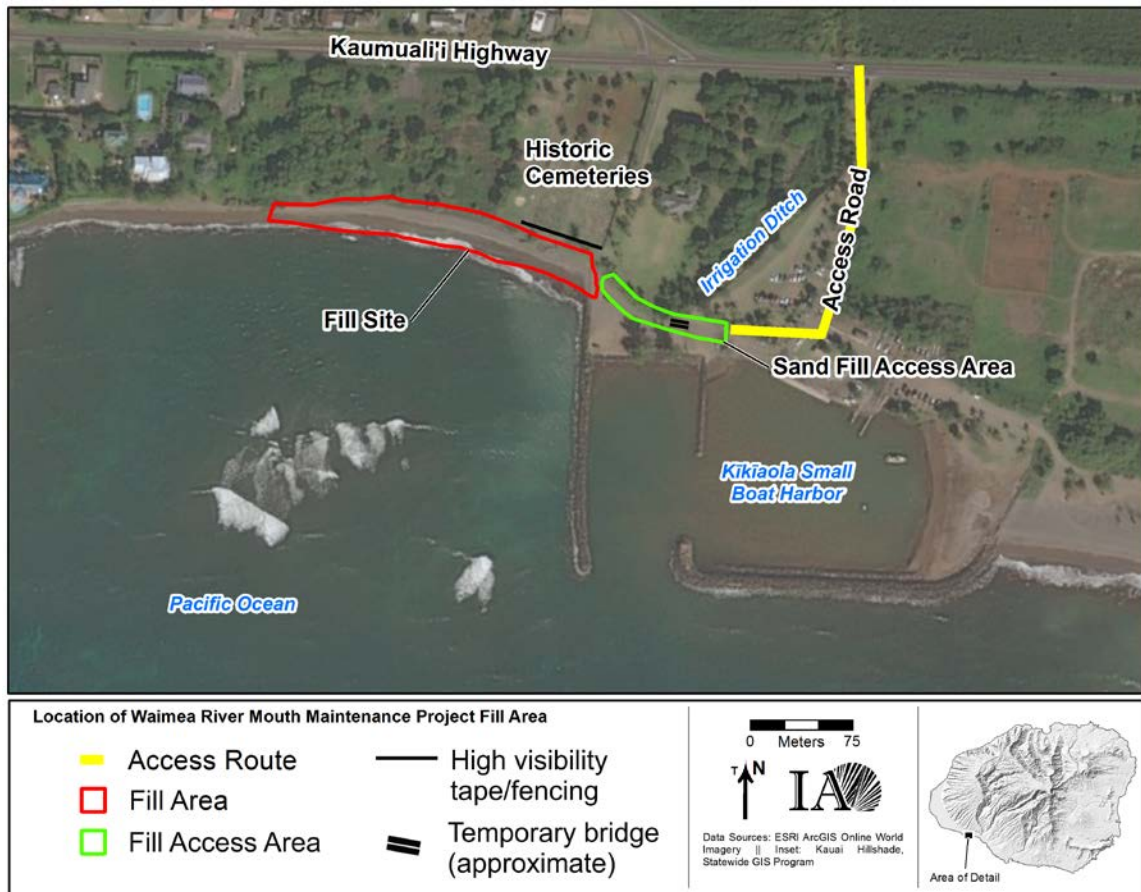


Figure 3. The fill site for the Waimea River Mouth Maintenance Project Area.

- Detailed description of the project scope of work and project maps showing the entirety of the project area and Area of Potential Effect (APE) (including transport routes, sand stockpiling areas, equipment storage or stockpiling areas) for all portions of the project;
- On-site archaeological monitoring shall be conducted during the sand fill portion of the project;
- Provide photographic documentation prior to project initiation that all temporary protection measures are in place as specified in the existing SHPD-approved AMP;
- Specify that one monitor be present for each piece of heavy machinery;
- In the event that non-burial historic properties are identified, SHPD shall be notified of the find and consulted regarding documentation, assessment of significance, and treatment;
- If human remains are identified, work will cease in the vicinity, SHPD will be notified, and compliance with procedures outlined in HAR §13-300-40 and SHPD directives shall be followed.

On November 15, 2017, a meeting was conducted between IA archaeologist Trever Duarte, M.A., and SHPD Archaeology Branch Chief, Susan Lebo, Ph.D., to discuss and finalize an addendum AMP strategy that would satisfy provisions outlined in the review letter. The present addendum AMP is consistent with the agreed-upon strategy of a letter format that can be appended to the existing Cultural Surveys Hawai'i, Inc., AMP.

PREVIOUS ARCHAEOLOGY

Numerous archaeological projects have been conducted within one kilometer of the sand fill portion of the project area (Figure 4), of which six are pertinent to the present proposed sand fill work. Hammatt and Chiogioji (1996) carried out an archaeological and historical assessment and field inspection of a large area of Kikīaola lands from west of the present project area to the western outskirts of Waimea town, and from the coast inland about 1.8 km. Several historic properties are discussed, including the Park Hook Tong Chinese Cemetery and the Japanese Cemetery just inland of the west end of the Kikīaola Small Boat Harbor (i.e., inland of the east end of the project sand fill parcel) (Figure 5).

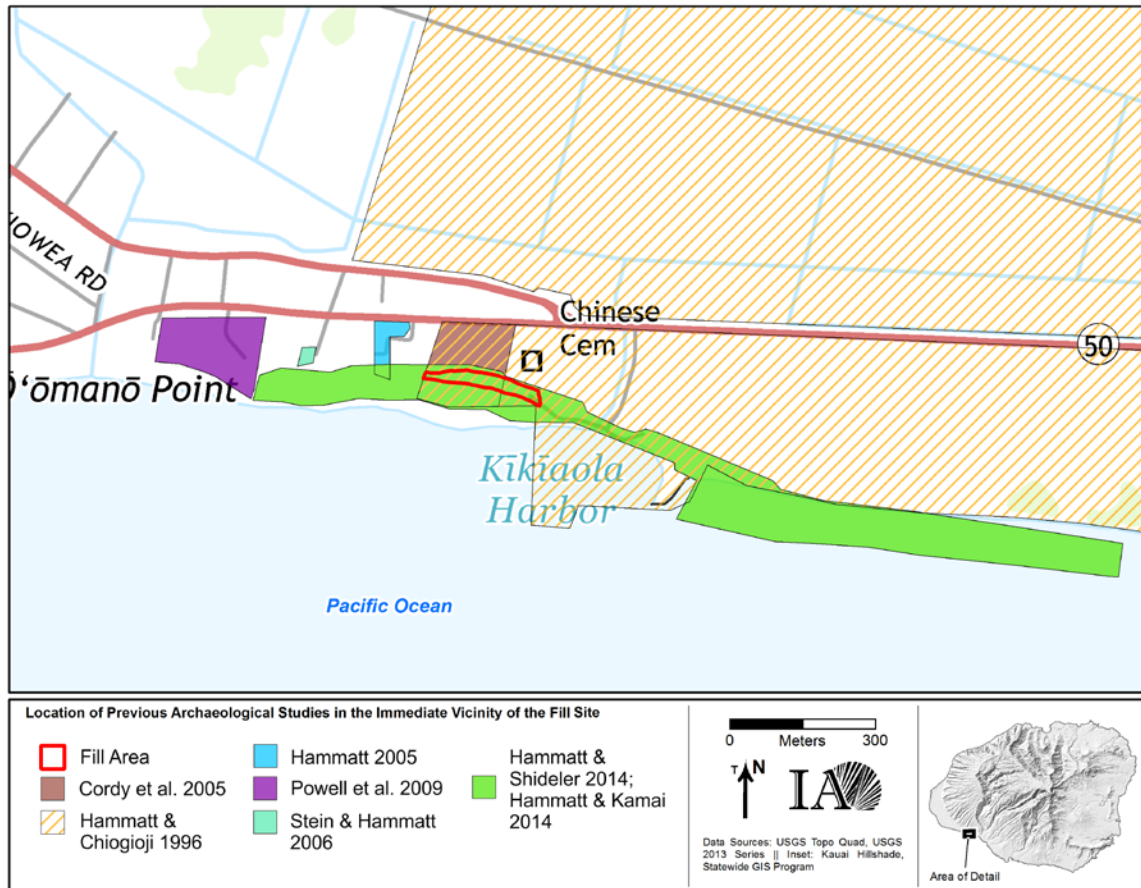


Figure 4. Locations of previous archaeological investigations in and around the sand fill portion of the project area.

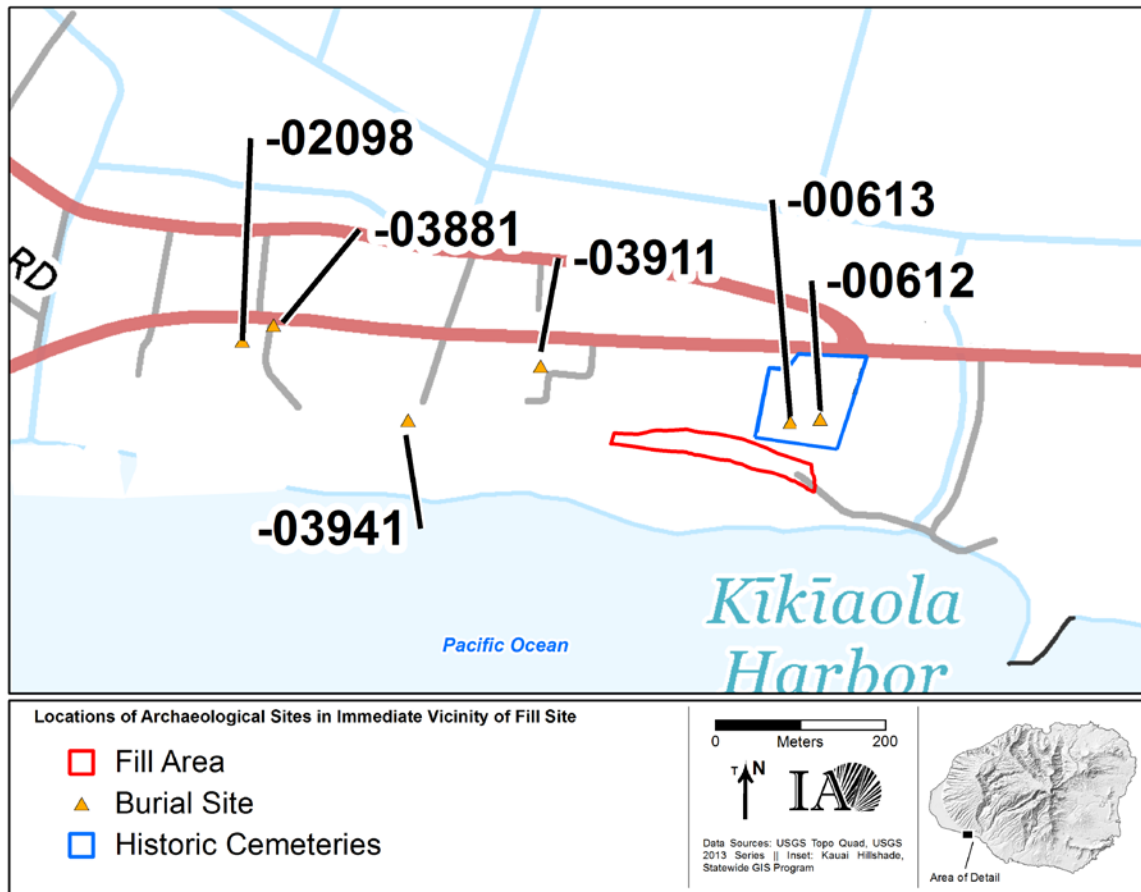


Figure 5. Previously identified archaeological sites and burials within 500 m of the fill site. Site numbers are prefixed with “50” for the State of Hawai‘i, “30” for the island of Kaua‘i, and “05” for the USGS Kekaha topographic quadrangle.

Hammatt and Shideler (2014) is an archaeological monitoring plan for the Kikīaola Small Boat Harbor Sand Bypass project, which encompassed the coastal area to the east and west of the harbor, including the present sand fill parcel. They provide an historical overview of previous archaeological research in this area, and identify six sites in proximity to the present sand fill area (Hammatt and Shideler 2014:Figure 20). The six sites include four isolated burials or clusters of burials (SIHP 50-30-05-02098, 03881, 03911, 03941) and the two previously identified historic cemeteries (SIHP 50-30-05-00612 and 00613) (see Figure 5). As noted above, the AMP was accepted by SHPD on April 10, 2014 (Log No. 2014.01582, Doc No. 1404SL07).

Hammatt and Kamai (2014) conducted archaeological monitoring for the Kikīaola Small Boat Harbor Sand Bypass project, following the provisions of the Hammatt and Shideler (2014) AMP. Prior to sand fill operations, they recorded five stratigraphic profiles of the wave cut bank west of the harbor; four of the profiles fall within the present project area. No historically significant cultural material or remains and/or concentrated deposits were encountered (Hammatt and Kamai 2014:71). The negative findings for this monitoring project indicate that the construction activities did not have any adverse effects on significant historic properties.

Hammatt (2005) summarizes the inadvertent discovery of human skeletal remains at the Aloha Kaua'i Villas (4491 Kīkīaola Place) to the west of the sand fill project area. At least three human burials were encountered during pool excavation (designated SIHP 50-30-05-3911).

Cordy et al. (2005) conducted an archaeological assessment with subsurface testing for an 8.2-acre parcel that overlaps with the western half of the the present sand fill project area. Fieldwork consisted of excavation of 52 backhoe trenches. No sites were identified, although artifacts, particularly bottles dating to the early and mid-twentieth century, were found in non-discrete contexts.

Stein and Hammatt (2006) report on monitoring and inadvertent burial recovery of human skeletal remains on a parcel west of the Aloha Kaua'i Villas. The remains of two burials (designated SIHP 50-30-05-3941) were found during excavation for a septic system.

Powell et al. (2009) present a historical summary related to a parcel west of Stein and Hammatt's project area. The parcel was the location of a mid-19th century Land Commission award that may have included a fishpond, and was the site of a Kekaha Sugar Company fishpond in 1957 (Hammatt and Shideler 2014:38).

Based on the previous archaeological work, it is anticipated that no historic properties will be directly affected by the proposed maintenance work at the sand fill location, which will be limited to deposition of sand onto the existing ground surface. Neither Hammatt and Kamai (2014) nor Cordy et al. (2005) found intact cultural deposits in subsurface contexts in the immediate vicinity of the present sand fill project area; the human skeletal remains were recovered from areas well west of the project area (Hammatt 2004; Stein and Hammatt 2006) and in subsurface contexts inland of the shore. However, the presence of the historic cemeteries inland of the east end of the fill area requires that care be taken in all maintenance activities to ensure that these identified historic properties are not negatively affected.

The borrow site falls entirely within the mouth of Waimea River, and access will be through the graded/paved parking lot for Lucy Wright Park. Therefore, no historic properties will be affected by the borrow activities,¹ and no monitoring is required.

MONITORING METHODS

As per the SHPD consultation review letter (Log No. 2017.01805, Doc. No. 1709GC06; see attached), full-time archaeological monitoring will be conducted during the sand fill portion of the project and there will be one monitor for each piece of heavy machinery. The archaeological monitor will attend the pre-construction meeting and explain the reasons for archaeological monitoring, the procedures involved, and how to proceed if a cultural site or deposit, or human burial or isolated human skeletal remains is encountered. The archaeological monitor will emphasize the sensitivity of the Japanese and Park Hook Tong Chinese Cemeteries and the need for care in operating heavy equipment in the area. Additionally, the monitor will state that he/she has the authority to pause work to inspect possible archaeological finds.

¹ Figure 2 suggests that the Fort Elizabeth State Historical Park falls in close proximity to the borrow site, but, in actuality, it sits on a steep bluff about 15 to 20 feet above the river and well outside of any potential for impact from project actions.

Prior to project initiation, the boundaries of the seaward portion of both cemeteries in proximity to the route of sand deposition equipment will be marked with high visibility plastic tape or fencing. The tape/fencing will be placed at the limit of the fill area, along the same alignment marked as "DF" (i.e., dust fencing) on Drawing No. C-7 of the DLNR (2018) site plan (see Figure 3 for location). All in-place temporary protection measures will be photographically documented prior to the beginning of sand fill work, per the existing SHPD-accepted AMP (Hammatt and Shideler 2014:8-9).

On-site monitoring will occur during all phases of the maintenance work in the sand fill area: staging/storage area installation and temporary bridge construction in the area between the harbor access road and the sand fill site; and sand fill deposition in the fill area.

In the event that non-burial historic properties are identified, SHPD shall be notified of the find, and consulted regarding documentation, assessment of significance, and treatment of the property. If human remains are uncovered, work will cease in the vicinity, SHPD shall be notified, and compliance with procedures outlined in HAR §13-300-40 and SHPD directives shall be followed

Additional monitoring provisions pertinent to the anticipated fieldwork, field and laboratory procedures, and report preparation are covered in Hammatt and Shideler (2014:40-42, Sections 4.1-4.2).

CURATION

Field and laboratory notes, forms, and other records and materials will be temporarily curated at the IA Honolulu office, which has been approved by SHPD as a temporary curation facility, until a permanent curation facility can be decided upon by the state and the SHPD.

Please let us know if you have any questions or require additional information regarding the addendum AMP.

Regards,



Timothy Rieth
Project Manager & Principal Investigator

Attachment (1)

REFERENCES

- Cordy, Dominique, Constance R. O'Hare, David Shideler, and Hallett H. Hammatt
2005 *Archaeological Assessment for an 8.2 Acre Parcel at Kīkīaola, Waimea Ahupua'a, Kona District, Island of Kaua'i*. Cultural Surveys Hawaii, Kailua.
- Department of Land and Natural Resources
2018 [draft] *Waimea River Mouth Maintenance, Waimea, Kauai, Hawaii*. TMK: (4) 1-6-06:01, 03, 04, 05, 06, 07, 08, 42. Job No. 500BK54H. Department of Land and Natural Resources Engineering Division.
- Hammatt, Hallett H.
2005 *Inadvertent Discovery of Human Skeletal Remains at the Aloha Kaua'i Villas (4491 Kīkīaola Place), Kīkīaola, Waimea Ahupua'a, Kona District, Island of Kaua'i (TMK 1-2-13:31)*. Prepared for Aloha Kaua'i Villas. Cultural Surveys Hawai'i, Inc., Kailua.
- Hammatt, Hallett H., and Rodney Chiogioji
1996 *Archaeological and Historical Assessment and Field Inspection of Kīkīaola Lands in the Ahupua'a of Waimea, Kona District, Island of Kaua'i*. Cultural Surveys Hawai'i, Inc., Kailua.
- Hammatt, Hallett H., and Nancine "Missy" Kamai
2014 *Monitoring Kīkīaola Small Boat Harbor Sand By-Pass System, Waimea Ahupua'a, Kona District, Kaua'i Island, TMK: [4] 1-2-06:03; 1-2-13:01, 31, 32, 34, 39, 40, 41, and 1-3-05:50*. Cultural Surveys Hawai'i, Inc., Kailua.
- Hammatt, Hallett H., and David Shideler
2014 *Archaeological Monitoring Plan for the Kīkīaola Small Boat Harbor Sand Bypass Project (POH-2010-00244), Waimea Ahupua'a, Waimea District, Kaua'i, TMKs [4] 1-2-06:03; 1-2-13:01, 31, 32, 34, 39, 40, 41, and 1-3-05:50*. Cultural Surveys Hawai'i, Inc., Kailua.
- Powell, James, Jon Wilson, and Robert L. Spear
2009 *An Historical Summary of the Former Fishpond Location and Potential Human Remains Existing on a 1.369 Acre Parcel in Kekaha, Kapilimoa Ahupua'a, Waimea District, Kaua'i Island, Hawai'i [TMK (4) 1-3-005:053]*. Scientific Consultant Services Inc., Honolulu.
- Stein, Erika T., and Hallett H. Hammatt
2006 *Archaeological Monitoring and Inadvertent Burial Recovery Report for SIHP 50-30-05-3941 at an Approximately 0.23-Acre Parcel within the Kekaha House Lots, Waimea Ahupua'a, District of Waimea, Island of Kaua'i [TMK: (4) 1-3-05:45]*. Cultural Surveys Hawai'i.

ATTACHMENT: SHPD REVIEW LETTER

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
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JEFFREY T. PEARSON, P.E.
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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
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

September 27, 2017

Carty S. Chang, Chief Engineer
Engineering Division, Department of Land and Natural Resources
P.O. Box 373
Honolulu, HI 96809

IN REPLY REFER TO:
Log No. 2017.01805
Doc No. 1709GC06
Archaeology

Dear Mr. Chang:

SUBJECT Chapter 6E-8 and National Historic Preservation Act (NHPA) Section 106 Review – Request for Comments for Waimea River Mouth Maintenance Project Waimea Ahupua‘a, Waimea District, Island of Kaua‘i TMK: (4) 1-2-006:003, 1-2-013:001, 003, 039, 040, 041; 1-6-006:001, 1-7-005:003

Thank you for the opportunity to provide comments regarding your submittal which includes two documents, one titled *Application for Department of the Army Permit, (33 CFR 325), Waimea River Mouth Maintenance Pre-Construction Notification for GP2011-011 (prepared by EKNA Services, Inc., August 2017, on behalf of DLNR Engineering Division)*, and the second titled, *Federal Public Notice Extension of General Permit 2011-001 for Maintenance Clearing of Rivers, Streams, Storm Drains and Beach Areas in the State of Hawaii* (Honolulu District, U.S. Army Corps of Engineers, Regulatory Branch). The State Historic Preservation Division (SHPD) received your submittal on August 11, 2017.

The proposed maintenance project is defined as federal undertaking pursuant to 36 CFR 800.16(y) due to the necessity of obtaining a federal permit, and is therefore subject to National Historic Preservation Act (NHPA) Section 106 consultation and review. This State project also is subject to review pursuant to Hawaii Revised Statutes Chapter 6E-8. The acreage of the project area/area of potential effect (APE) is not provided.

According to the submittal, DLNR Engineering Division proposes to dredge the sand plug at the Waimea River mouth, and to utilize the clean sand dredged from the stream mouth to replenish the eroding beach west of Kikiaola Small Boat Harbor. Dredging of sand plug will extend to the depth of the natural stream bed or 4 ft. below mean sea level (MSL). Dredging equipment will include an excavator, track loader, bulldozer, and dump trucks. Construction access to the project site will be from Alawai Road to the Lucy Wright Park, providing access to the Waimea Stream mouth. The clean and dewatered sand from the stream mouth will be temporarily stored until it is transported by trucks (as depicted in Figure 10) to the fill site, described as a sand embankment west of Kikiaola Small Boat Harbor. Sand will be discharged above the Mean Higher High Water (MHHW) Line.

The submittal indicates that based on preliminary research of sites listed on the Hawaii Register of Historic Places (HRHP) and/or the National Register of Historic Places (NRHP), two Register-listed historic properties occur in proximity of the proposed project. The Captain Cook Landing Site is on the National Register of Historic Places (NRHP 66000298; State Inventory of Historic Places [SIHP] 50-30-05-9303), and the Russian Fort Elizabeth (NRHP 66000299; SIHP 50-30-05-1000). It also indicates that the Russian Fort is located well outside of the project APE, on a bluff on the east side of Waimea River. The Captain Cook Landing Site is reportedly located within the Lucy Wright Park; however it was not located during the current assessment work.

A review of SHPD records indicates that several archaeological studies have been conducted within Waimea Town. The results of these studies documented numerous archaeological sites, including subsurface cultural layers, human burials, and traditional habitation sites. Our records also indicate that four burial-related historic properties are adjacent to the Kīkīaola Small Boat Harbor portion of the project. These consist of three to five burials (SIHP 50-30-05-3911), two burials (SIHP 50-30-05-3941), Japanese Cemetery (SIHP 50-30-05-612) and the Chinese Cemetery (50-30-05-613). SIHP 612 and SIHP 613 are adjacent to the present project area. SHPD records also indicates that an archaeological monitoring plan (AMP) titled *Archaeological Monitoring Plan for the Kīkīaola Small Boat Harbor Sand Bypass Project, Waimea Ahupua'a, Waimea District, Kaua'i, TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 1-3-005:050, Cultural Surveys Hawaii, Inc.* (Hammatt and Shideler, April 2014) was accepted by SHPD on April 10, 2014 (Log No. 2014.01582, Doc No. 1404SL07). This AMP was prepared in support of the Kīkīaola Small Boat Harbor Sand Bypass Project to ensure agreed upon mitigation and protection measures are in place prior to start of the sand deposition portion; and to adequately identify, document, assess any historic properties that may be encountered during the project.

Based on the information provided, **SHPD requests archaeological monitoring for the sand fill portion** of the project area, at the west end of Kīkīaola Small Boat Harbor, due to (1) the proximity of the proposed work to the Waimea Japanese Cemetery (SIHP 50-30-05-612), and (2) the current undercutting and slumping of the beach-side edge of the Japanese Cemetery. **SHPD also requests** an addendum to the existing SHPD-accepted archaeological monitoring plan (Hammatt and Shideler, April 2014), to include the following provisions:

- Detailed description of the project scope of work and project maps showing the entirety of the project area and APE (including transport routes, sand stockpiling areas, equipment storage or stockpiling areas) for all portions of the project;
- On-site archaeological monitoring shall be conducted during the sand-fill portion of the project;
- Provide photographic documentation prior to project initiation that all temporary protection measures are in place as specified in the existing SHPD-AMP;
- Specify that one monitor per heavy machinery;
- In the event that non-burial historic properties are identified, SHPD shall be notified of the find and consulted regarding documentation, assessment of significance, and treatment;
- If human remains are identified, work will cease in the vicinity, SHPD will be notified, and compliance with procedures outlined in HAR §13-300-40 and SHPD directives shall be followed.

The SHPD website at: <http://dlnr.hawaii.gov/shpd/about/branches/archaeology> provides a list of archaeological consultants permitted to conduct archaeological services.

SHPD will notify you when the addendum AMP has been accepted and permitting may proceed.

This submittal will require the State Historic Preservation Officer (SHPO) to review the proposed project under the National Historic Preservation Act (NHPA) Section 106 and it's implementing regulation 36 CFR 800.

Pursuant to 36 CFR 800, the SHPD looks forward to receiving the following:

- (1) Name of the federal and state funding or licensing agency/agencies involved with this project. The State Historic Preservation Officer is required to respond to the federal agency or to the agency's designated authority. Consultants contracted to prepare information, analyses, or recommendations are not recognized as a federally-delegated authority. Every Please include the name, address, telephone number, and email of the contact person/s at the federally delegated authority. A federal agency or federally delegated authority contact is mandatory pursuant to 36 CFR §800.2(a);
- (2) A delegation letter from the federal agency that identifies the activities and responsibilities they have delegated to you on their behalf;
- (3) Information documenting that the agency has evaluated and determined that the project constitutes an undertaking as defined in 36 CFR 800.16(y);
- (4) Identification of the APE acreage and maps showing APE location(s);

- (5) Information indicating that a reasonable and good faith effort to identify historic properties (architectural, archaeological, or traditional cultural properties [TCPs]) within the area of potential effect (APE) pursuant to 36 CFR §800.4(a) and 4(b) has been completed. The identification effort must include consultation efforts with Native Hawaiian Organizations (NHOs) [36 CFR §800.4(a)(4)] and consultation with individuals, organizations and the public with a demonstrated interest in the undertaking [36 CFR §800.2(c)] and should include documentation of the nature of the consultation, the names of the consulted parties, and their comments/concerns; and
- (6) A determination of eligibility and significance for any properties or potential historic districts within the APE [36 CFR §800.4(c)]; assessment of project effect [36 CFR §800.4(d)]; and if necessary resolution of adverse effects [36 CFR §800.6] for any sites located within the APE.

Additionally, the **SHPD looks forward to** receiving a request from the lead federal agency or their delegated authority to initiate NHPA Section 106 consultation with SHPD on the proposed undertaking.

Please contact Susan A. Lebo, Archaeology Branch Chief, at (808) 692-8019 or Susan.A.Lebo@hawaii.gov for any questions regarding this letter.

Aloha,



Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

cc: Valerie Suzuki, DLNR Engineering Division, Valerie.s.suzuki@hawaii.gov
Russell Tsuji, Administrator, DLNR Land Division, Russell.y.tsuji@hawaii.gov
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US Army Corps of Engineers, Honolulu District, cepoh-ro@usace.army.mil

Final
Archaeological Monitoring Plan for the
Kīkīaola Small Boat Harbor Sand Bypass Project
(POH-2010-00244)
Waimea Ahupua‘a, Waimea District, Kaua‘i
TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041,
1-3-005:050

Prepared for
The H.E. Johnson Company, Inc.

Prepared by
Hallett H. Hammatt, Ph.D.
and
David W. Shideler, M.A.

Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: WAIMEA 7)

April 2014

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Management Summary

Reference	Archaeological Monitoring Plan for the Kīkīaola Small Boat Harbor Sand Bypass Project (POH-2010-00244), Waimea Ahupua'a, Waimea District, Kaua'i TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050 (Hammatt and Shideler 2014)
Date	April 2014
Project Number(s)	U.S. Army Corps of Engineers (USACE) job POH-2010-00244 Cultural Surveys Hawai'i, Inc. (CSH) Job Code: WAIMEA 5
Investigation Permit Number	CSH will likely complete the archaeological monitoring fieldwork under Hawai'i State Historic Preservation Division (SHPD) permit number 14-04, issued per Hawai'i Administrative Rules (HAR) §13-13-282.
Agencies	U.S. Army Corps of Engineers (USACE), SHPD, Department of Land and Natural Resources (DLNR), Engineering Division, Division of Boating and Ocean Recreation (DOBOR)
Land Jurisdiction	DOBOR
Project Proponent	DOBOR
Project Funding	DOBOR
Project Location	The Kīkīaola Small Boat Harbor Sand Bypass project is located at the Kīkīaola Small Boat Harbor and adjacent coastline between the urban/suburban centers of Waimea (approximately 700 m to the southeast) and Kekaha (to the north and northwest), in Waimea Ahupua'a, Waimea District, on the south coast of southwest Kaua'i TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050
Project Description	In general the project entails excavation of newly accreted sand from a coastal strip ("borrow site") extending east of the Kīkīaola Small Boat Harbor, transport of this sand via dump truck across the north side of the harbor to the sand fill area on the west, and deposition of this sand in the area that has been subject to erosion. A temporary bridge crossing will be established over an existing irrigation ditch located just inland of the west side of the harbor and a contractor's storage area will be established in the northeast corner of the harbor.
Project Acreage	The Kīkīaola Small Boat Harbor and adjacent coastline project area is understood as approximately 33.9 acres but the area of direct impact will be much smaller.

<p>Project-Related Disturbance</p>	<p>Project-related disturbance will involve primarily excavation at the borrow area along the coast east of the harbor and the setting up of a temporary bridge crossing over an existing irrigation ditch located just inland of the west side of the harbor.</p> <p>Disturbance to existing sediments related to the transport and depositing of fill are anticipated to be minimal.</p>
<p>Historic Preservation Regulatory Context</p>	<p>An SHPD response to a <i>National Historic Preservation Act (NHPA) Section 106 Consultation – U.S. Army Corps of Engineer’s Request for Consultation Kīkīaola Small Boat Harbor – Sand Bypass Project, POH-2010-00244 Mana Ahupua‘a, Waimea District, Island of Kaua‘i</i> TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050 in a review dated 4 April 2014 (LOG NO: 2014.00581, 2014.00896, DOC NO: 1404SL04; included here as Appendix A) specifically requests an archaeological monitoring plan for the review and acceptance of the SHPD prior to issuance of requisite permits. This archaeological monitoring plan (AMP) was designed to be compliant with both Federal and Hawai‘i State environmental and historic preservation review legislation. Due to Federal (USACE) permitting, this project is a Federal undertaking, requiring compliance with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). As a DLNR DOBOR project within a State harbor, the project is subject to Hawai‘i State environmental and historic preservation review legislation (Hawai‘i Revised Statutes [HRS] §343 and HRS §6E-8 Hawai‘i Administrative Rules [HAR] §13-13-275).</p> <p>In consultation with the SHPD, this AMP was prepared in consideration of the <i>Secretary of the Interior’s Standards for Archaeology and Historic Preservation</i> and fulfills the requirements of HAR §13-13-279-4 governing archaeological monitoring plans.</p>
<p>Historic Properties Potentially Affected</p>	<p>The USACE has affirmed their previous determination that “the proposed action will have no adverse effect on historic or cultural resources” (28 March 2014; email from Jessie K. Paahana [Corps] to Susan A. Lebo [SHPD] referenced in the SHPD consultation letter of 4 April 2014; included here as Appendix A). In consultation with the SHPD this archaeological monitoring program has been established to address any previously unidentified (pre- or post-Contact) historic properties (e.g., cultural deposit, human remains, artifacts) that may be encountered during extraction of fill from the borrow site or as may have been exposed at the placement site. The proximity of the placement site to a historic cemetery suggests a heightened prospect of post-Contact human skeletal remains being exposed in the vicinity.</p>

Monitoring Recommendations	<p>As per the SHPD consultation letter dated 4 April 2014, monitoring will consist of on-site monitoring to address any concerns while the project team sets up the staging area and the bridge, and starts the initial borrow operations, etc. (this is anticipated to take 1-2 weeks).</p> <p>After the team has the bridge, road, staging, etc. in place, along with the temporary preservation fencing, and has a layer of sand down in the fill area, it may be possible to switch to spot monitoring once a week, and possibly later to on-call monitoring, with written concurrence from SHPD. Any departure from full time on-site monitoring of all ground disturbance will occur only following consultation with and written concurrence from the SHPD.</p>
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Section 1 Introduction

1.1 Project Background

At the request of The H.E. Johnson Company, Inc., and on behalf of the State of Hawai'i Department of Land and Natural Resources (DLNR), Engineering Division, Division of Boating and Ocean Recreation (DOBOR), Cultural Surveys Hawai'i, Inc. (CSH) has prepared this archaeological monitoring plan (AMP) for the Kīkīaola Small Boat Harbor Sand Bypass project (POH-2010-00244) located at the Kīkīaola Small Boat Harbor and adjacent coastline between the urban/suburban centers of Waimea (approximately 700 m to the southeast) and Kekaha (to the north and northwest), in Waimea Ahupua'a, Waimea District, on the south coast of southwest Kaua'i TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050. The project area is depicted on a portion of the 1991 U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1), tax map plats (Figure 2 through Figure 4), and a 2012 aerial photograph (Figure 5).

Severe erosion has recently been occurring at the western edge of the Kīkīaola Small Boat Harbor extending from the onshore (north) foundation of the north/south trending western breakwater towards the west. At the same time there has been an extensive build-up of marine-deposited sand to the east of the harbor. In general the project entails excavation of this newly deposited sand from a coastal strip ("borrow site") extending east of the harbor, dump truck transport of this sand across the north side of the harbor to the sand fill area on the west, and deposition of this sand in the area that has been subject to erosion (Figure 6 and Figure 7). A temporary bridge crossing will be established over an existing irrigation ditch located just inland of the west side of the harbor and a contractor's storage area will be established in the northeast corner of the harbor.

1.2 Historic Preservation Regulatory Context and Document Purpose

A State Historic Preservation Division (SHPD) consultation response to a *National Historic Preservation Act (NHPA) Section 106 Consultation –U.S. Army Corps of Engineer's Request for Consultation Kikiaola Small Boat Harbor–Sand Bypass Project, POH-2010-00244 Mana Ahupua'a, Waimea District, Island of Kaua'i TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050* in a review dated 4 April 2014 (LOG NO: 2014.00581, 2014.00896, DOC NO: 1404SL04; included here as Appendix A) specifically requests an archaeological monitoring plan for the review and acceptance of the SHPD prior to issuance of requisite permits.

This archaeological monitoring plan (AMP) was designed to be compliant with both Federal and Hawai'i State environmental and historic preservation review legislation. Due to Federal U.S. Army Corps of Engineers (USACE) permitting, this project is a Federal undertaking, requiring compliance with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). As a DLNR DOBOR project within a State harbor, the project is subject to Hawai'i State environmental and historic preservation review legislation (Hawai'i Revised Statutes [HRS] §343 and HRS §6E-8 and Hawai'i Administrative Rules [HAR] §13-13-275).

In consultation with the SHPD, this AMP was prepared in consideration of the *Secretary of the Interior's Standards for Archaeology and Historic Preservation* and fulfills the requirements of

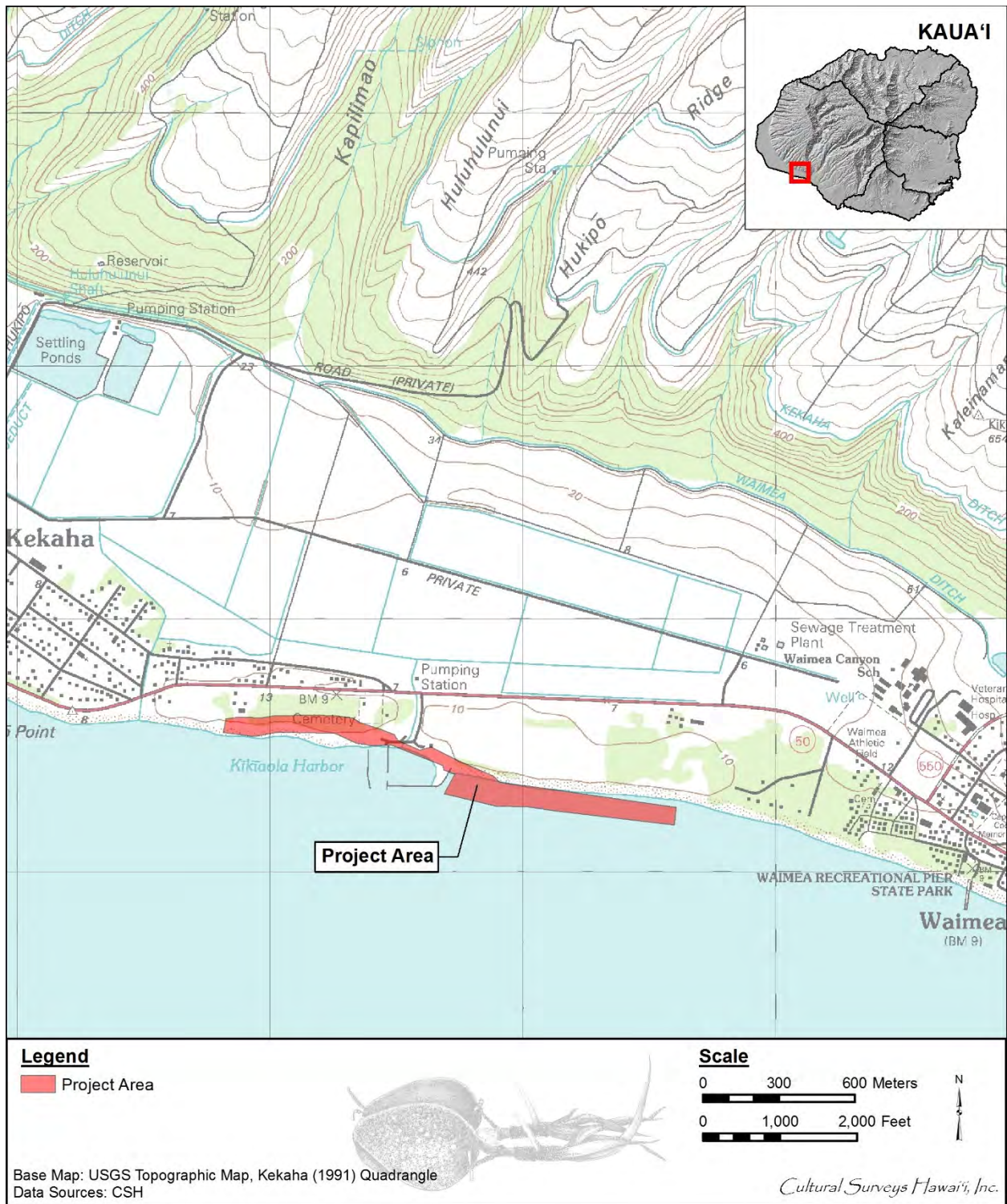


Figure 1. Portion of the 1991 Kekaha USGS 7.5-minute topographic quadrangle showing the location of the project area

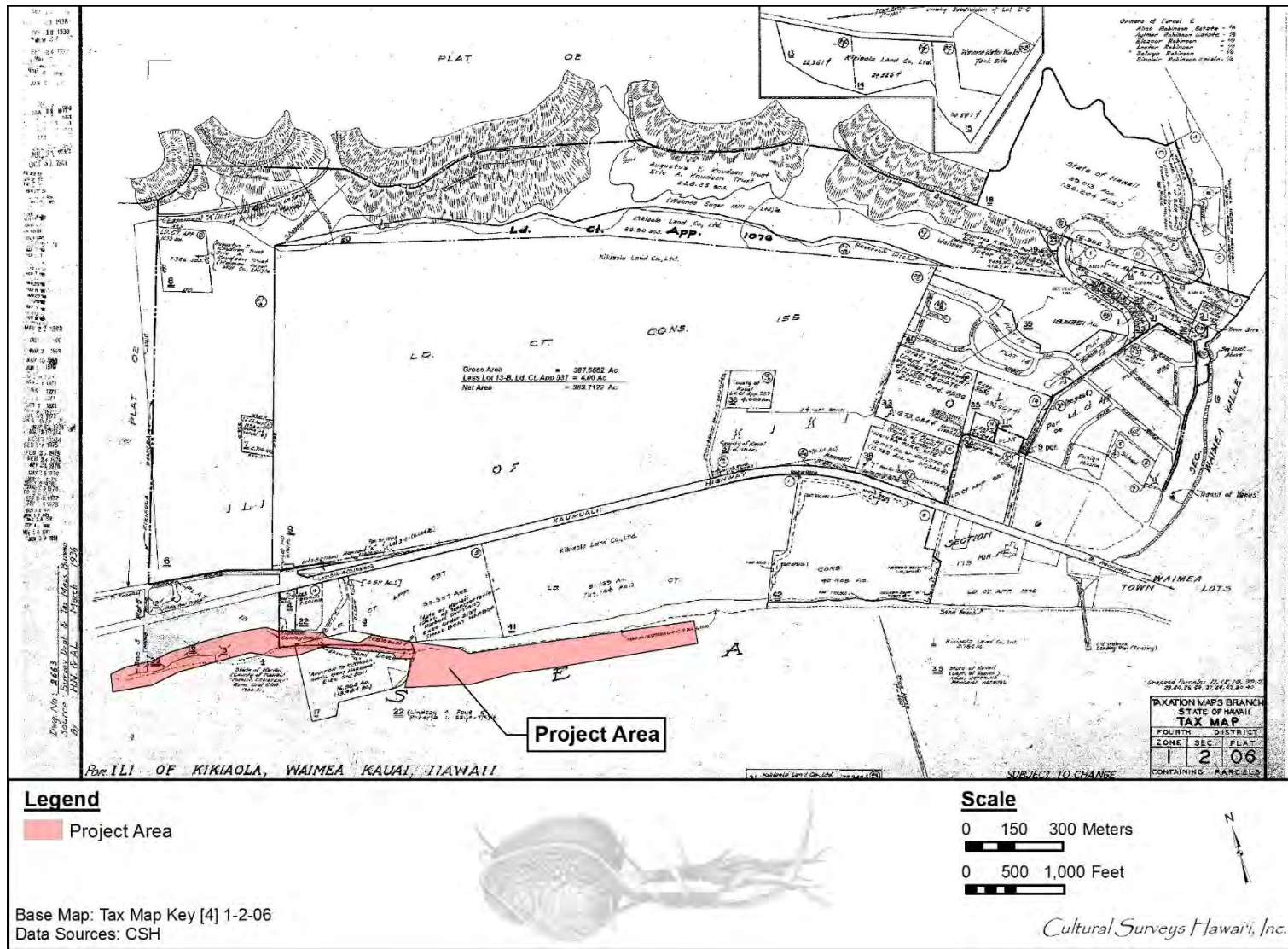


Figure 2. Tax Map Key (TMK) [4] 1-2-006:003 showing project area

AMP for the Kīkīaola Small Boat Harbor Sand Bypass Project (POH-2010-00244), Waimea, Kauaʻi

TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050

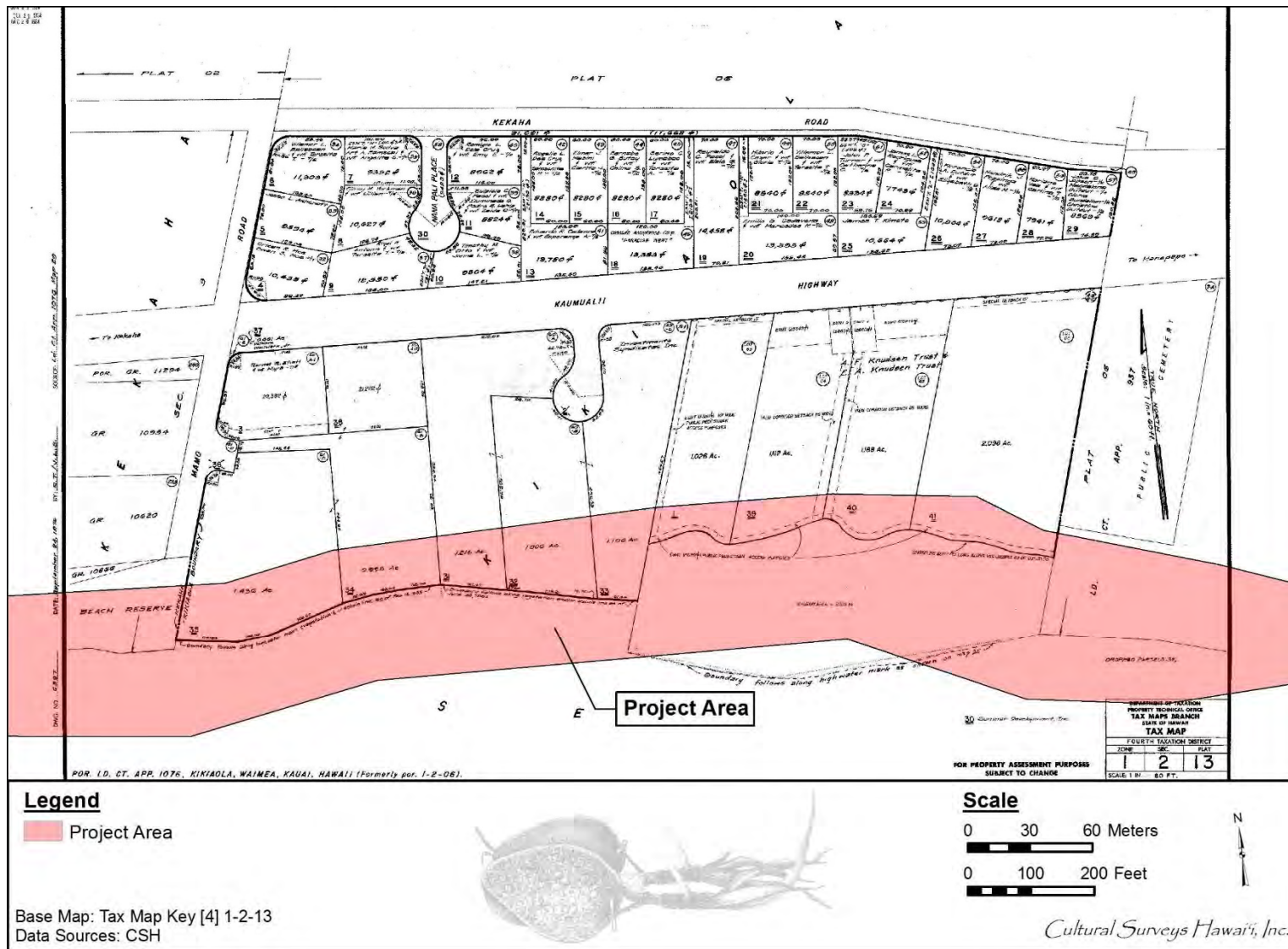


Figure 3. TMK [4] 1-2-013:001 showing project area

AMP for the Kikiaola Small Boat Harbor Sand Bypass Project (POH-2010-00244), Waimea, Kaua'i

TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050



Figure 5. Aerial orthophotograph (Google Earth 2012), showing the project area

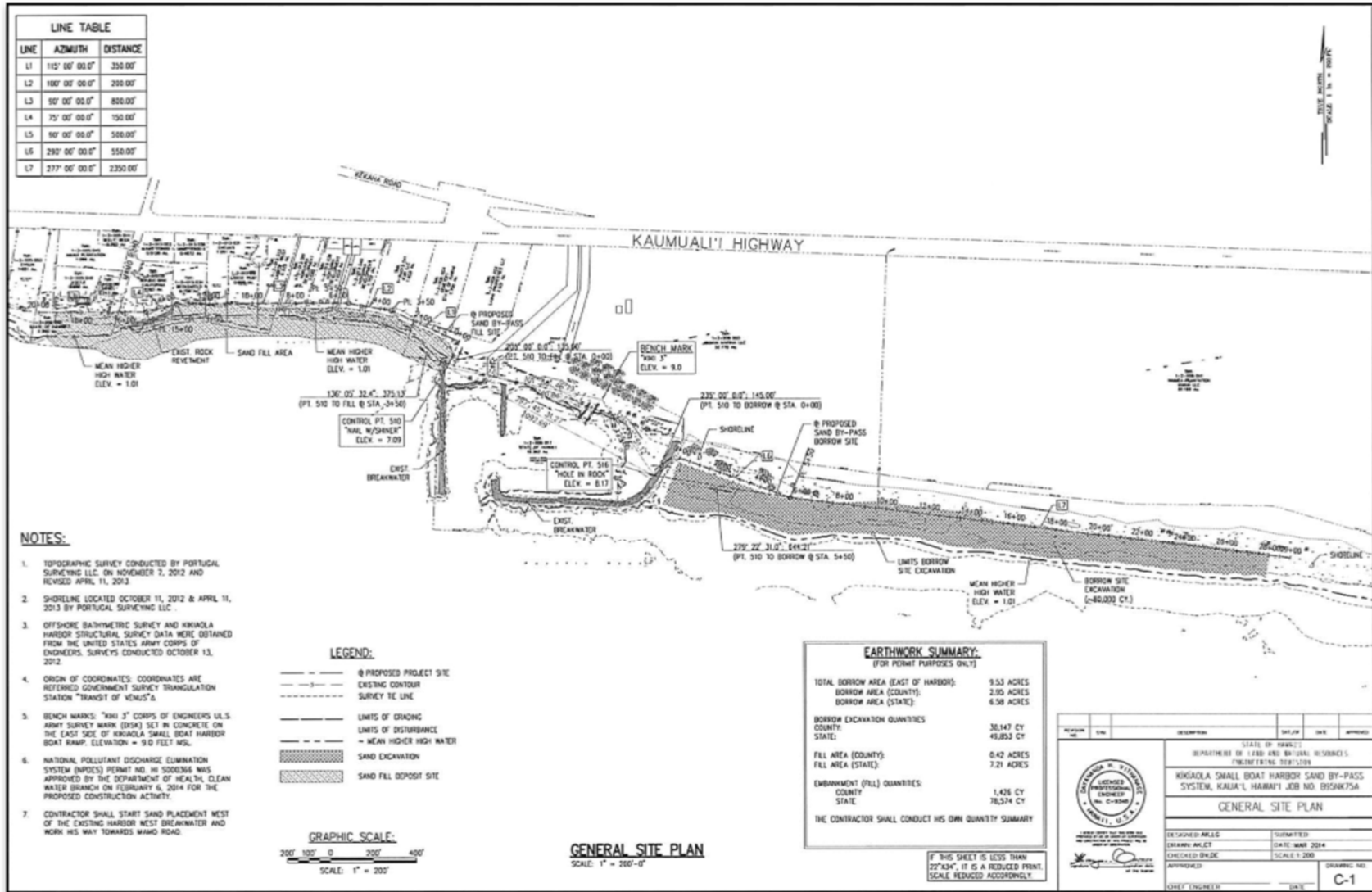


Figure 6. Client-provided general site plan

AMP for the Kikāoia Small Boat Harbor Sand Bypass Project (POH-2010-00244), Waimea, Kaua'i

TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050

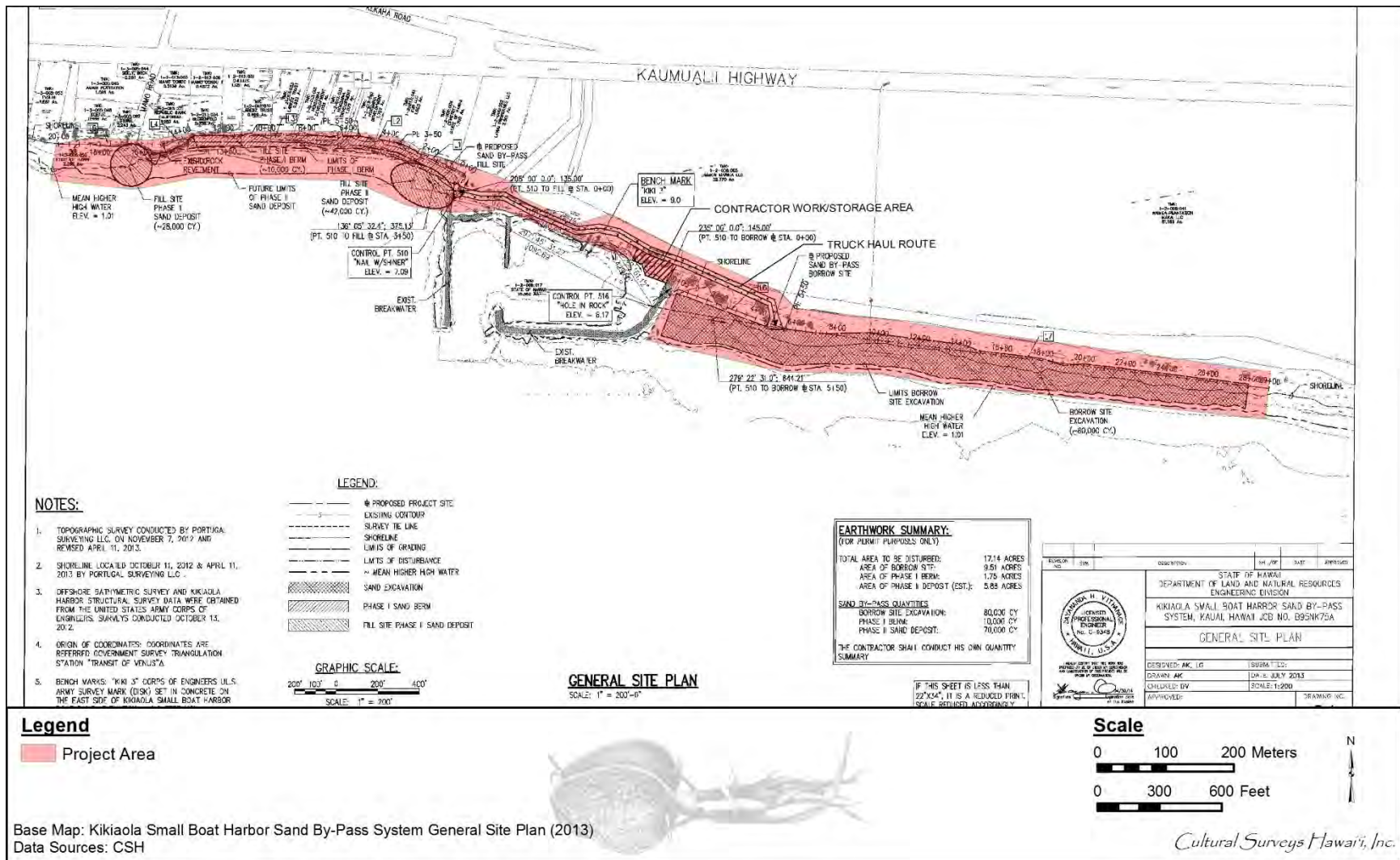


Figure 7. Client-provided general site plan showing construction access route and proposed contractor work/storage area

Hawai'i Administrative Rules (HAR) §13-13-279-4 governing the preparation of archaeological monitoring plans. The program proposed by DOBOR to mitigate potential adverse impacts to historic properties (as codified in the SHPD consultation dated 4 April 2014, see present Appendix A) includes but is not limited to:

Access Routes

1. The Contractor shall only utilize truck haul routes along existing paved and/or unpaved roads on State property (see plans Sheet C-2); the direct truck haul route through TMK: [4] 1-2-006:003 has been deleted.
2. A water truck will be used for dust control, and the hauling equipment will be three Komatsu HM-3002y articulated dump trucks with a capacity of 32 cubic yards per truck.
3. A temporary bridge crossing will be established on the *makai* (south) side of the existing irrigation ditch bridge crossing (see plans Sheet C-2A); the ends of the two existing drain pipes are plugged and under approximately 6 inches of sand. The contractor will install two 18-inch corrugated metal or plastic pipes under the temporary bridge crossing. The temporary bridge crossing will consist of about 4 ft of compacted structural fill.
4. The Contractor shall notify the Archaeological monitor if they intend to utilize other areas for their truck haul routes.

Borrow Site

5. The upper or *mauka* boundary of the borrow site shall be determined at the site visit with DLNR OCCL personnel, Contractor and the Archaeological monitor to ensure the excavation is limited to sand and sediment that has built up since the harbor was constructed in the late 1950s.
6. Temporary barriers or markers will be installed along the *mauka* boundary.
7. All equipment operators will be notified that no equipment or vehicles are allowed *mauka* of the temporary barrier or markers, and the barrier or markers shall be maintained in good condition by the Contractor for the duration of the project, unless deemed unnecessary by the Archaeological monitor.
8. All excavation will occur within the designated borrow area in accordance with the following methodology: 1) five test pits will be dug with an excavator to verify subsurface sand quality; 2) a D-6 dozer will scrape and push sand into a pile(s). Excavation of sand in the borrow areas will be done in thin sections, not to exceed 1 ft in depth; 3) the Contractor will remove and dispose of all unusable materials from the excavated materials; and 4) clean sand from the pile will be loaded into dump trucks using a front loader.

Sand Placement Site

9. The Contractor shall install a temporary barrier or markers along the top of the existing slope or scarp, and will notify all equipment operators that no equipment or vehicles are allowed *mauka* of the temporary barrier or markers. The

temporary barrier or markers shall be maintained in good condition by the Contractor for the duration of the project, unless deemed unnecessary by the Archaeological monitor.

10. The Contractor shall dump sand fill *makai* of the top of the existing slope or scarp and not directly against the slope or scarp; the proposed Phase I Berm which was to be constructed above the MHH Water Line has been deleted.
11. The Contractor shall take all necessary precautions to protect the existing slope or scarp from damage during the sand fill placement.
12. The contractor will start the sand placement immediately to the west of the West Breakwater and will continue dumping and leveling sand along the entire length of the Sand Fill Deposit Site as shown on the plans. The sand will be spread by a bulldozer, and once the beach has been built up near the West Breakwater, and compacted sufficiently to allow for the safe operation of heavy equipment, the dump trucks will drive on the sand fill and dump more sand on or near the western side of the sand fill. This process will continue along the entire sand fill placement site until the sand is placed along the beach near Mamo Road. Once final grades have been established, the Contractor will grade the sand to a smooth condition with the D-6 bulldozer or Cat 140 motor grader; the proposed Fill Site Phase II sand deposit at the end of Mamo Road has been deleted.

General

13. The Contractor work, storage, and field site will be located adjacent to the highway and access will only occur from the highway along an existing unpaved road.
14. All personnel associated with the onsite construction, supervision, and/or inspection of the excavation and placement of sand will be required to attend an onsite meeting conducted by the Archaeological monitor.
15. The Contractor shall not store their equipment on the borrow site overnight, State holidays, or weekends.
16. The Contractor shall immediately stop work and notify the Archaeological monitor, SHPD, Construction Manager and DOBOR Engineer if any historic properties (e.g., cultural deposit, human remains, artifact) are found during exaction or are exposed at the placement site. All work in the vicinity of the find shall stop and the area secured with temporary fencing until it is evaluated by the Archeological monitor and/or SHPD.

In addition, an archaeological monitoring plan will be prepared which includes provisions for on-site monitoring on a weekly basis, subject to a change to spot monitoring with written concurrence from SHPD. Also, SHPD will work with DOBOR and all other consulting parties to conduct site visits, as needed, concerning any agreed-upon mitigation measures.

1.3 Environmental Setting

1.3.1 Natural Environment

The Kīkīaola Small Boat Harbor and adjacent coastline project area is understood as approximately 33.9 acres but the area of direct impact will be much smaller. The project area is located along the coast just *makai* (seaward) of Kaumuali'i Highway at Kekaha, Kaua'i (TMKs: [4] 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050).

The project area extends along approximately 1,800 m of the south shore of southwestern Kaua'i extending from sea level up to an elevation of approximately 15 ft at the northwest end. The project area is immediately on the shoreline with the greatest distance inland of approximately 140 m. The project area is generally fairly flat.

According to the U.S. Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) database (2001) and soil survey data gathered by Foote et al. (1972), the project area's soils consist of Beaches, and Jaucas loamy fine sand, dark variant, 0 to 8% slopes (Figure 8). Beaches are described as follows:

Beaches (BS) occur as sandy, gravelly, or cobbly areas on all the islands in the survey area. They are washed and reworked by ocean waves. The beaches consist mainly of light-colored sands derived from coral and seashells. A few of the beaches, however, are dark colored because their sands are from basalt and andesite.

Beaches have no value for farming. Where accessible and free of cobblestones and stones, they are highly suitable for recreational uses and resort development. (Capability classification VIIIw, nonirrigated). [Foote et al. 1972:28]

The Jaucas Series soils are described as follows:

This series consists of excessively drained, calcareous soils that occur as narrow strips on coastal plains, adjacent to the ocean. These soils occur on all the islands of this survey area. They developed in wind- and water-deposited sand from coral and seashells. They are nearly level to strongly sloping. Elevations range from sea level to 100 feet; but locally on West Molokai, the elevation is as high as 650 feet. The annual rainfall amounts to 10 to 40 inches. The mean annual soil temperature is 15° F. Jaucas soils are geographically associated with Pulehu, Mokuleia, Kaloko, and Lualualei soils.

In this survey area a dark variant of the Jaucas series was mapped. This soil, Jaucas loamy fine sand, dark variant, 0 to 8 percent slopes, is described in alphabetical order, along with other mapping units of this series.

These soils are used for pasture, sugarcane, truck crops, alfalfa, recreational areas, wildlife habitat, and urban development. The natural vegetation consists of kiawe, koa haole, bristly foxtail, bermudagrass, fingergrass, and Australian saltbush. [Foote et al. 1972:48]

Jaucas loamy fine sand, dark variant, 0 to 8% slopes (JkB) are described as follows:

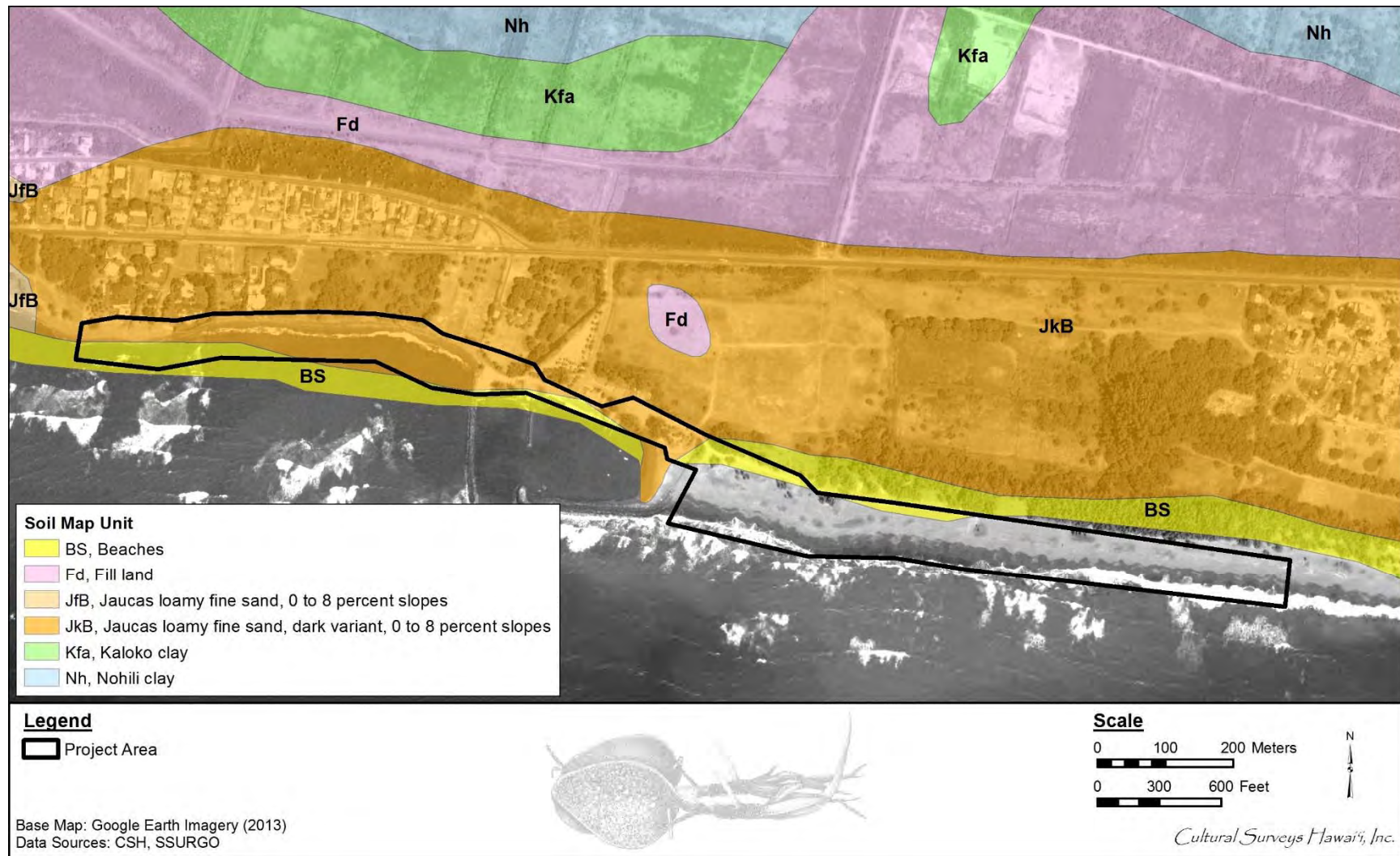


Figure 8. Overlay of *Soil Survey of the State of Hawaii* (Foote et al. 1972), indicating sediment types within and surrounding the project area (USDA Soils Survey Geographic Database [SSURGO] 2001)

This soil occurs on Kauai near the town of Waimea. Unlike other soils of the Jaucas series, sand and coral sand are mixed throughout the profile. The basaltic sand gives this soil a dark-brown to black color.

This soil is used for sugarcane, pasture, and homesites. (Capability classification IVs if irrigated, VIe if non-irrigated; sugarcane group 1; pasture group 1). [Foote et al. 1972:49]

In recent years erosion at Kekaha Beach Park, in the area west of the Kīkīāola Small Boat Harbor has removed much of the sand leaving exposed rocks.

Located on the drier leeward coast of Kaua'i, annual rainfall in the project area averages less than 500 mm (20 inches) and occurs primarily in the fall and winter months (September to March) (Giambelluca et al. 1986).

Vegetation along this arid coast is sparse. With 20 inches or less of rain annually, only the hardiest plants adapted to the coastal environments can thrive in this zone. The vegetation is typical of dry seashore environments in Hawai'i and is dominated by alien species. The parcel is intermittently vegetated with *kiawe* (*Prosopis padilla*), *koa haole* (*Leucaena leucocephala*), and various grasses such as bristly foxtail (*Setaria verticillata*), Bermudagrass (*Cynodon dactylon*), and fingergrass (*Chloris* sp.).

1.3.2 Built Environment

The project area lies in a relatively undeveloped stretch of land between the urban/suburban centers of Waimea (approximately 700 m to the southeast) and Kekaha to the north and northwest (see Figure 1 and Figure 5). Kaunali'i Highway, the major vehicular artery to west Kaua'i lies at a distance of 100 m north of the west end of the project area and approximately 400 m north of the east end of the project area.

The Kīkīāola Small Boat Harbor was originally developed by the State of Hawai'i in 1959 and is named after the land area ('*ili*) of "Kīkīāola." "Kīkīāola" is best known as the name of a historic irrigation ditch ('*auwai*) also known as "Menehune Ditch" or "Pe'ekaua'i Ditch," that is traditionally believed to have been built by the Menehune (the ditch was added to the National Register of Historic Places on 16 November 1984) .

Section 2 Background Research

2.1 Traditional and Historical Background

2.1.1 Mythological and Traditional Accounts

Kekaha is only peripherally mentioned in one Hawaiian legend. Concerning the *heiau* called Howea in Waiawa, the place name Kekaha is mentioned in one of the legends of Ola, a legendary chief of Kaua'i.

Howea was the principal heiau of that land. Mr. Knudsen now owns the land that the heiau stood on. This is an ancient heiau. I do not know which chief built it but guess it may have been either Kaeo or his grandfather. I do not know the name of the priests who officiated in it. [HEN VI, Hms 43, informant Kanakahalela 1885]

. . . these are the things of which this heiau was well known in the olden days. There was a man named Ola whose mother was Kahapula. At one time, long ago, there was a battle fought between those of Waimea and those of Kekaha. In this battle, Ola, one of Waimea's warriors was taken captive by (the warrior of) Kekaha and was taken to the heiau with the idea that he was to be killed next day. But on the night before he was to be sacrificed, Kahapula, his mother, heard of it while she was in the uplands of Mahaikona, makaweli. She took two kukui nuts and juggled with them as she went straight down to Waiawa where the heiau stood. Her son was held captive within. As his mother went along casting up her kukui nuts, she chanted a song as was customary in the olden days. This game was called kimo puili and this was the chant she used . . .

Part 1. Two days they came in,

Two days remained away, etc., etc.

Part II. That is one; that is two;

That is three; that is four;

Neither side has won the game

They clashed, clashed (till the noise) reached the skies

The fifth was indistinctly heard

The sixth led up to the seventh

The eighth is for Kamalalawalu (a chief of Maui)

The ninth ran away

ran crookedly into a circle

I have completed a fiery circle, once.

. . . thus went the old woman till she passed the waters of Waimea, and on to the plains of Kekaha till she reached the plain of Waiawa. She went up outside of the heiau. The kukui nuts that she juggled with did not fall out of her hand once so she

knew that this was a good omen and she would have no trouble in going into the heiau. She felt encouraged and went in to get her son. When she entered she saw that everyone had fallen asleep and only her son, who was bound with ropes, was awake. She untied the ropes to free him and together they went out and ran away to hide themselves from the guards. When the guards awoke, they found their prisoner gone and they were disappointed indeed.

The mother and son went home in peace. The son made a walled ditch for the purpose of raising water to a higher elevation. It was a good deed for the water still flows in that ditch to this day. That place is called Kikiaola. [HEN #15]

Wichman (2003) explains some points of a different version of this legend. In his version, the heirs of a chief of Kaua'i named Kū'alu-nui-paukū-mokumoku kept dying, and the chief suspected that his *kahuna* (priest), who wished to return to the mythical homeland of the Hawaiian people, was responsible. In order to secure an heir, he married a woman named Kahāpula, who became pregnant. He then accused his right-hand man Pi'i of being the father, and banished both of them to a remote valley in Waimea canyon. He gave to Kahāpula a red *malo* (loincloth) and a *lei 'ōpu'u* (whale tooth pendant on a cord of human hair), and told her to give them to his son, who would present them as proof of his identity to his father when he reached adulthood. He also told her to plant a *kukui* nut near her new home. Kahāpula soon gave birth to a son, which along with the *kukui* tree, soon grew.

When the chief judged that his son was old enough to soon come to him, he ordered the construction of a *heiau* in Wai'awa Valley. He also ordered that a fish trap be built, so that enough food would be available for a celebration. The mischievous son of Kahāpula took some of the fish from this fish trap, but since the fish trap had a *kapu* (tabu) set on it, he was apprehended and it was decided that he would be the human sacrifice to dedicate the new *heiau*. He was held prisoner at the new *heiau* in Wai'awa.

His mother, Kahāpula, consulted Pi'i who told her that she must pick six *kukui* nuts from the tree near the house and juggle the nuts as she walked to Wai'awa. He told her if she dropped a nut her son would die but if she caught them all, then his life would be spared. The road to Wai'awa was rocky and difficult, but the inhabitants went before Kahāpula, clearing her way by moving rocks and branches. She reached Wai'awa, released her son, and clothed him in the red *malo* and *lei 'ōpu'u*. When Kū'alu-nui-paukū-mokumoku and his *kahuna* came to the *heiau*, the boy proclaimed that he was the chief's son. The *kahuna*, in anger, threw a spear at the boy, who casually tossed it aside. Since the *kahuna* had defiled the temple, he stabbed himself and instead became the sacrifice for the *heiau*. The chief named his son "Ola," meaning "life," and named the *heiau* "Hau-ola," meaning "life offering" or "dew of life" (Wichman 2003:7-9).

2.1.2 The Place Name: Kekaha

Kekaha is a locality in the *ahupua'a* of Waimea on the southwest side of the island of Kaua'i. Part of the old district or *moku* of Kona, the Waimea Ahupua'a is by far the largest on the island, comprising 92,646 acres and accounting for more than a quarter of the total land area of Kaua'i. It encompasses all of the Waimea River Canyon area, the uplands of Kōke'e, the high swampy plateau of Alaka'i, and the northwestern coastal valleys of Nu'alolo and Miloli'i (Gray 1875:140-146).

On the southwestern leeward coast, a broad, flat plain stretches between the Waimea River delta and Polihale to the west. It is here that Kekaha is located, backed on the *mauka* (inland) side by steep low cliffs and a series of small valleys and gulches.

Waimea Ahupua'a is composed of several regions that are very different in climate and terrain. These differences essentially dictated the kinds of resources that were available, and hence had much to do with the way the *ahupua'a* was settled by prehistoric Hawaiians. The well-watered valley and delta of the Waimea River were ingeniously developed and engineered for wetland agriculture, and represent the epitome of the typical Hawaiian and Kaua'i-type valley settlement (Handy and Handy 1972:393-397).

In contrast, Kekaha and other settlements on the Mānā plain suffered from a definite lack of fresh surface water. The *mauka* gulches had only intermittent stream flows, and water sources were primarily springs along the base of the cliffs. For this reason, this portion of the report will focus mainly on the specific area of Kekaha and not attempt to cover the entire *ahupua'a* of Waimea.

Although the Boundary Commission officially surveyed and set the bounds of the *ahupua'a* of Waimea in 1875, as generally described previously, there are a few sources which contradict this, maintaining that Kekaha was a separate *ahupua'a*. "Kīkīaola" was a smaller land division ('*ili*) sometimes regarded as a subset of Kekaha and/or Waimea (Figure 9). Our earliest (1885) identified detailed map of the project area vicinity indicates that a 565.56-acre coastal portion of the 1,123-acre Kīkīaola 'Ili was awarded as Grant 532 to George B. Rowell. Significant habitation activity is indicated 500 m to the east of the project area (towards Waimea Town) but no development is shown in the immediate vicinity of the project area.

Testimony in the mid-1800s that supports the native land claim of R. Naumu refers to "Kekaha ahupua'a" in describing the properties (Native Testimony, n.d.:11:15).

Valdemar Knudsen, an early *haole* (non-native) settler in the area, also refers to the "ahupua'a of Ketaha [sic]" in a letter to John Dominis, Commissioner of Crown Lands (Knudsen 1866:3). A late nineteenth century map (Imlay 1891) shows a pie-shaped land section labeled "Kekaha," indicated by a dotted line boundary that encompasses the area from the top of Waiaka ridge to the shoreline (Figure 10).

Handy and Handy (1972:427) imply that Kekaha, as well as Polihale and Mānā, were individual *ahupua'a* of Waimea, though the reasoning for this is not given. However, the native land claim of Elia Lihau for the land of Wai'awa, just west of Kekaha, concedes that this area was indeed part of the *ahupua'a* of Waimea (Native Register 1848:9:244).

Admittedly, it is unusual for a single *ahupua'a* to occupy such a large percentage of the land area of a major Hawaiian island. It could easily be argued that the comparatively low agricultural productivity of the Mānā plain, due to the scarcity of water, is the basis for its inclusion in Waimea. However, the same cannot be said for the well-watered valleys of Nu'alolo and Miloli'i, both of which could easily support typical and self-contained valley settlements of perhaps small but stable populations.

It could also be speculated that Waimea, being one of the two areas of the island that traditionally was the domain of the high chiefs (the other being Wailua), commanded the resources

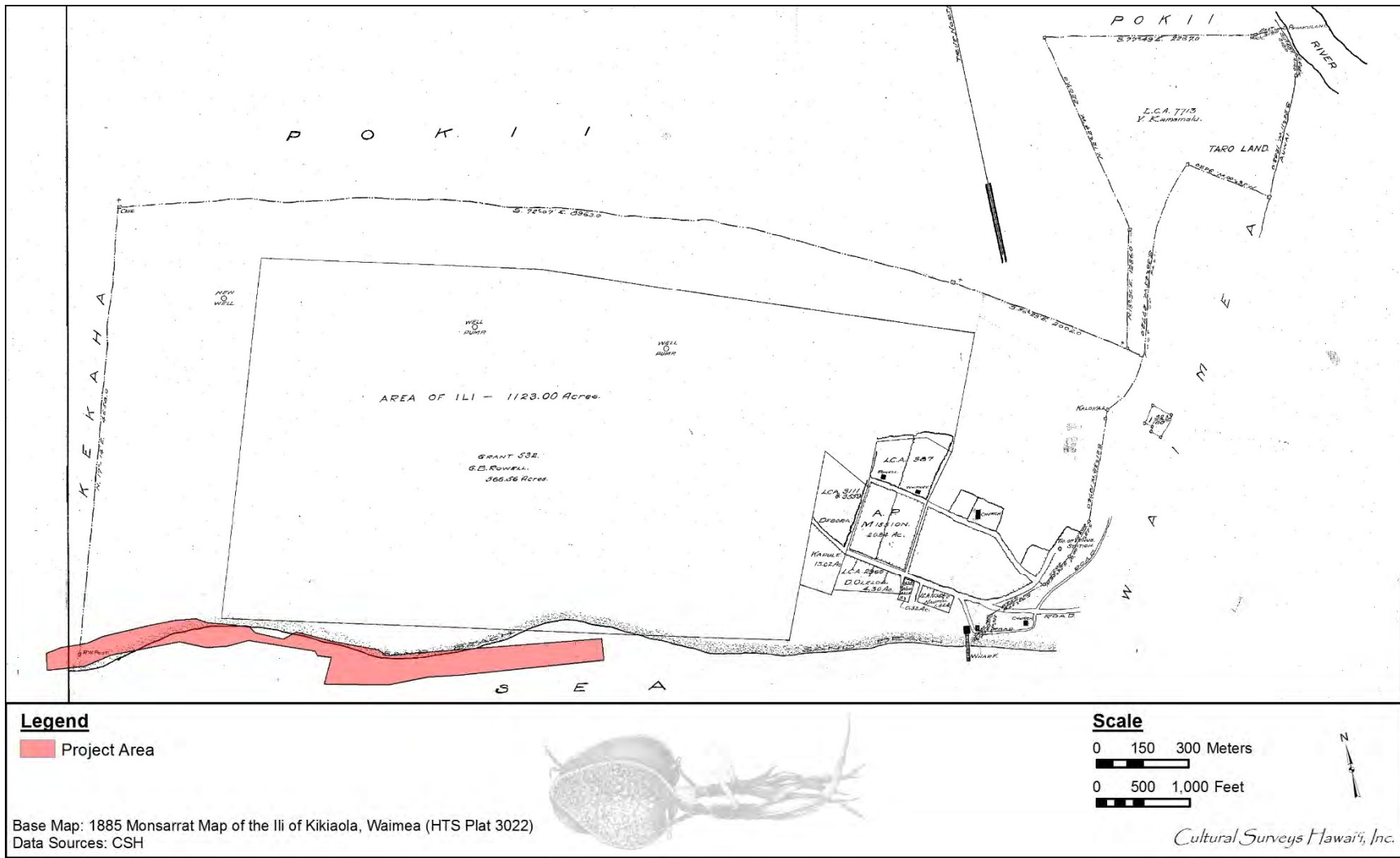


Figure 9. 1885 Monsarrat map of the Ili of Kikiaola, Waimea

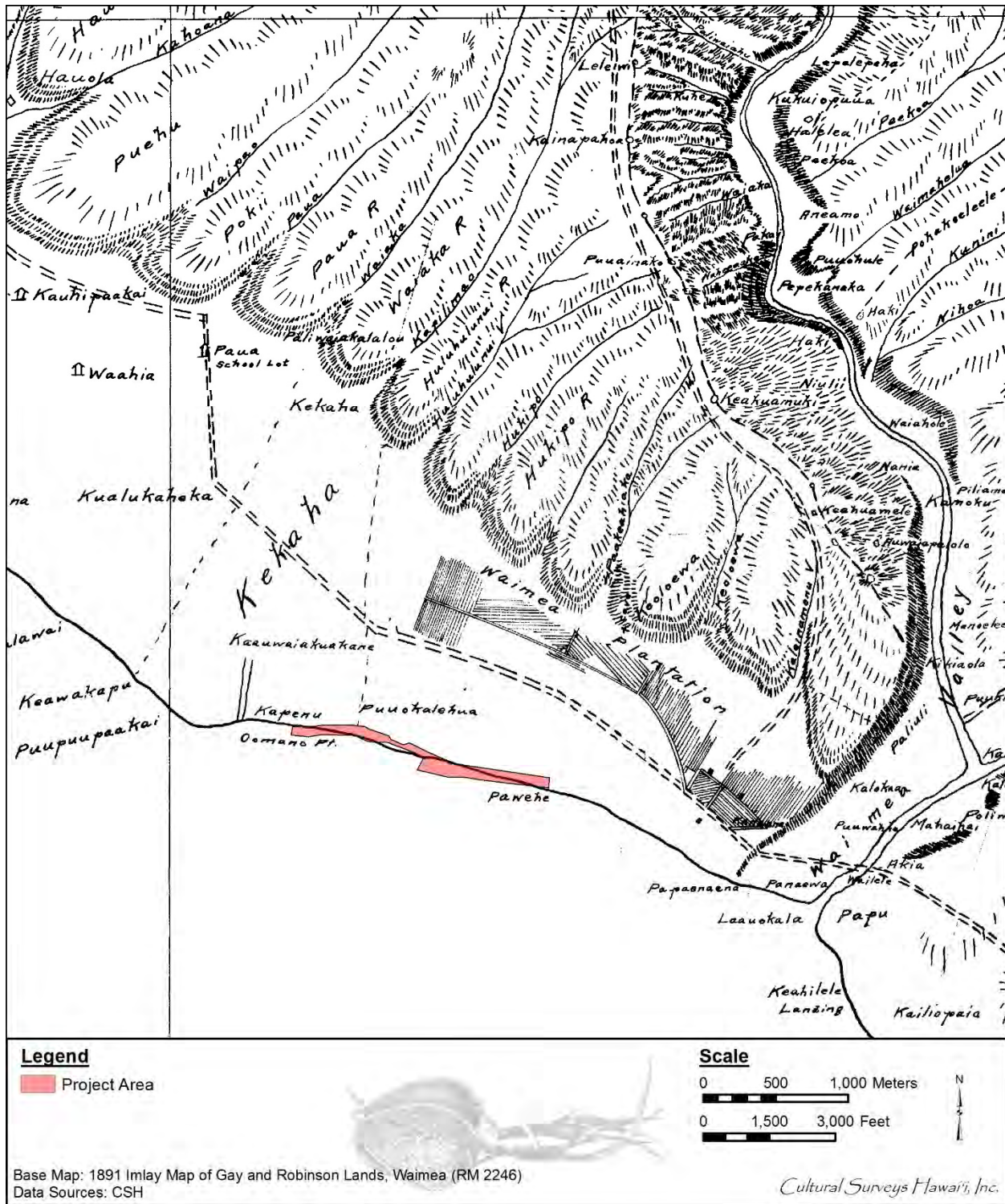


Figure 10. 1891 map by L.E. Imlay of Gay and Robinson lands, Kekaha Ahupua'a boundary

of the large upland region of Kōke'e and Alaka'i, among them the large *koa* trees out of which the hulls of canoes were hewn, and forest birds which supplied the feathers for cloaks, capes, and other items associated with the *ali'i* (chiefly class). It is quite possible that at one time Waimea was divided into several smaller *ahupua'a*, perhaps before the Māhele, or even during the pre-Contact period.

Pukui et al. (1974:106) gives the literal translation of Kekaha as "the place." However, Handy and Handy's (1972:54) definition gives more insight into the description of the place name: "Kaha was a special term applied to areas facing the shore but not favorable for planting. Kekaha in Kona, Hawaii, was one so named, and Kekaha on Kauai another."

Kelly (1971:2) describes Kekaha on the island of Hawai'i as '*āina malo'o* or "dry land," and indeed the same could be said of Kekaha, Kaua'i, if one considered the area's low annual rainfall and lack of permanent streams. Kekaha, however, was neither void of water nor of a pre-Contact population that made use of the local resources.

2.1.3 Early Historic Period

The first western description of the place comes only ten years into the post-Contact (post AD 1778) era. William Beresford was the supercargo on board the British ship *Queen Charlotte* under Captain George Dixon, which along with the *King George* captained by Nathaniel Portlock, sailed on an exploratory voyage to the northwest coast of America. In 1798, both ships wintered in Hawai'i, spending much time off Waimea, Kaua'i. On one of the several shore outings, Beresford visited nearby Kekaha, which he called "A Tappa."

Having frequently heard our people who had been on shore speak of a village, called by the natives A Tappa, where a great number of people were commonly employed in manufacturing cloth, curiosity prompted me to walk to that place first, as I found it was not more than three miles distant, so that I could easily get back by Tyheira's dinner time.

The country, from the place where we landed to A Tappa is tolerably level, and for the space of two miles, very dry. The soil here is a light red earth, and with proper cultivation, would produce excellent potatoes, or any thing that suits a dry soil; but at present, it is entirely covered with long coarse grass: the inhabitants, I suppose, finding plenty of ground near their habitations, more conveniently situated for their various purposes. So far, the space from the beach to the foot of the mountains is about two miles in breadth; but from hence to A Tappa, it grows gradually narrower, till it terminates in a long sandy point, which I have already observed, is the West extreme of Wymea Bay.

A Tappa is a pretty large village, situated behind a long row of cocoanut trees, which afford the inhabitants a most excellent shelter from the scorching heat of the noonday sun. Amongst these cocoa-trees is a good deal of wet swampy ground, which is well laid out in plantations of taro and sugar cane.

I had laid my account in seeing their method of manufacturing cloth; but here I was mistaken. A number of our people, prompted by the same curiosity as myself, were got to A Tappa before, where 'Labour stood suspended as we passed.' The people

flocked eagerly about us; some asking us to repose ourselves under the shady branches of trees planted about their doors; other running to the trees for coconuts and presenting them to us with every mark of kindness and good nature; in short, every inhabitant of the village was fully employed, either in relieving our wants, or gratifying their curiosity in looking at us.

The day being very sultry, we walked leisurely back, and I returned by a different path from that I had taken, in going to A Tappa. On examining the grass, which in most places is higher than the knee, I found it not altogether of a rough coarse sort, but intermixed with various sorts of flowers, together with different grasses, of the meadow kind; so that I have no doubt, with proper management, it would make excellent hay. [Dixon 1968:124-126]

Beresford's remark that the dry soil conditions in the area would be most suitable for potatoes is in line with Handy and Handy's (1972:410) assertion that the sweet potato was probably the prime staple of the village, rather than taro, because of the limited water resources.

While Beresford described taro, sugarcane, and coconut being cultivated in Kekaha, no mention is made of *wauke*, the inner bark of the mulberry tree, used as the raw material for making *kapa* or bark cloth. This seems curious in light of his statement that cloth making was a major activity of the village and the main purpose of his trek there was to observe this process.

Due to the climatic conditions, the Mānā plain was probably not a prime *wauke* growing area (Handy and Handy 1972:209). However, Beresford did note on a later excursion through the lower Waimea Valley that "cloth mulberry" trees were numerous around the house sites there (Dixon 1968:131). It may be likely that there was some sort of trade going on between the residents of Waimea and Kekaha, involving the raw material and the labor that turned it into cloth.

Native claims for land made to the Board of Commissioners to Quiet Land titles in 1848 also shed some light as to settlement and land use in the area during the early historic period. Only three claims were made in and/or near Kekaha.

Keaona (No. 8841) claimed a house lot, six *lo'i* (irrigated plots), and some *kula* (land used for dryland agriculture or pasture) near the base of the *pali* (cliff) at Pōki'i, about a mile north of Kekaha (Native Register 1848:9:397). Elia Lihau (No. 6698) claimed all the land of Wai'awa (just west of Pōki'i), most of which was unused *kula*, but included a restricted fishery. This claim was never awarded (Native Testimony 11:155).

The only one to claim land actually in Kekaha was B. Naumu (No. 5386). Mentioned in this claim are *lo'i*, a house lot, a salt bed (*aliapa'akai*), and a *muliwai* (a pool near the mouth of a stream or an estuary) called Kapenu. Naumu developed the *lo'i* in 1844, stating that it was previously overgrown land (Native Testimony 11:146).

The 1891 map of west Kaua'i by L.E. Imlay (see Figure 10) shows Kapenu as a stream that entered the ocean just east of 'Ō'ōmanō Point (approximately 300 m west of Kīkīaola Small Boat Harbor). A later 1921 map by Evans does not show the stream, but places one of Naumu's awarded lots in the same area near the shore (Figure 11). He was also awarded a parcel in Kekaha at the base of the *makai* (towards the sea)-facing *pali* of Hululunui Ridge.

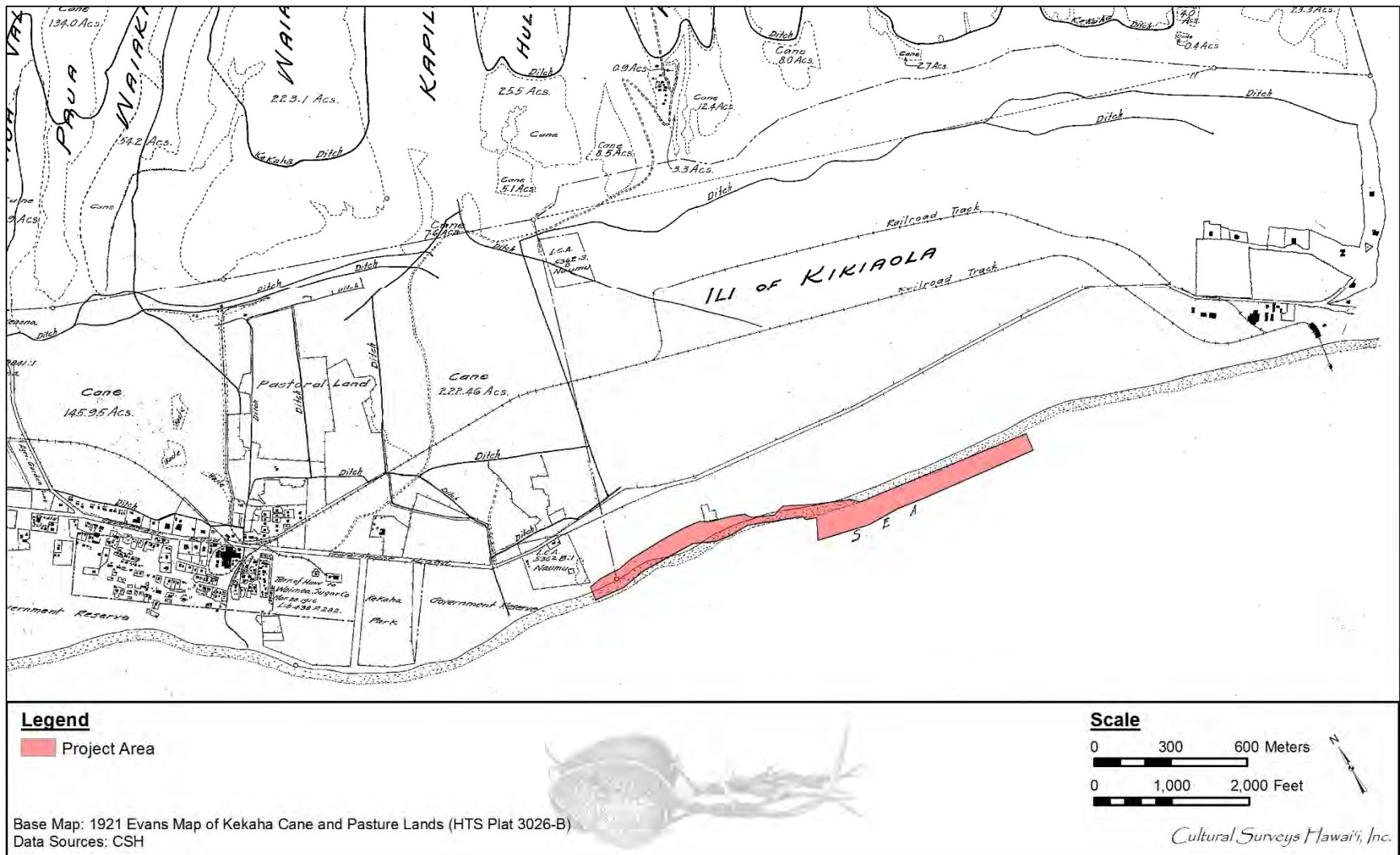


Figure 11. 1921 map by T.J. Evans of Kekaha Cane and Pasture Lands

Interestingly, Evans' 1921 map shows an irregularly shaped depression occupying the southeast corner of Naumu's beach lot. In a more recent map tax map (Figure 12), this same depression is labeled a fishpond and was probably of the *pu'uone* type. Naumu makes no mention of this in his claim; he or his heirs probably developed the pond later in the historic period.

2.1.4 Mid- to Late 1800s

Most of the historical accounts of Kekaha during this period are the result of letters, papers, and books authored by Valdemar Knudsen and his immediate offspring, Eric A. Knudsen and Ida Elizabeth Knudsen Von Holt. Knudsen came to Hawai'i from Norway via the mainland where he had business dealings. He settled at Wai'awa in 1854 as a rancher, agriculturalist and later, sugar planter.

Knudsen took over the lease of government lands in Kekaha, Pōki'i, Mānā, and Miloli'i in 1856 from Archibald Archer and a Mr. Gruben as pasture land for grazing cattle. These two men had been involved in a tobacco farming enterprise, which failed due to drought in the lowlands of Mānā and Waiawa (Damon 1931:292). Associated with them was a Mr. Clifford, who made cigars (Lydgate 1991:92).

Eventually Knudsen controlled the entire district, excluding *kuleana* (tenant) lands, from Nu'alolo to Waimea, including all the *mauka* area (Knudsen and Noble 1945:35). In this post-Māhele era, he held the title of *konohiki* (overseer) and Hawaiians with no *kuleana* of their own who lived in the district, reportedly numbering 300-400 people, worked for Knudsen three days out of the month as "rental payment" (Von Holt 1985:61).

As a side note, among the employees on Knudsen's ranch was a young Hawaiian from Kekaha named Ko'olau who later became famous as the leprous "outlaw" who defied banishment to the leper settlement at Kalaupapa, Moloka'i and successfully held off a siege by government troops of his refuge in Kalalau Valley on the Nāpali coast of Kaua'i (Hofgaard 1991:108-109).

Knudsen described Kekaha as "a low marsh land, full of fish ponds and cocoonut-trees, but the ponds are overgrown with bullrushes and would cost more than they are worth to bring in order. I tried once and it cost me circa \$200.00. There is not much grazing lands belonging to Ketaha and it is chiefly pili grass" (Knudsen 1866:304).

Valdemar's son Eric, later made this observation:

From Waimea towards Mana there were no trees, no fences, no cane, all was open country; along the taro patches of Kekaha and Pokii grew quite a number of cocoonuts. The mango trees were planted by my father. Numbers of Hawaiians lived about Kekaha and Pokii, where there were springs and taro land. Then the land was bare again until you reached Waiawa. Above the road in Pokii, where the cane loaders now stand, was a row of thatched houses and the natives planted a lot of tobacco. [Knudsen 1991:98]

Evidently the area had changed little since Beresford's visit in 1787. The perpetual swamplands of the plain apparently were greatly enlarged during periods of heavy winter rains. It was possible on these occasions to paddle a canoe from Mānā to Waimea on this inland waterway (Knudsen 1991:99; Von Holt 1985:77-78). Waterfowl present in the wetlands provided a food resource for

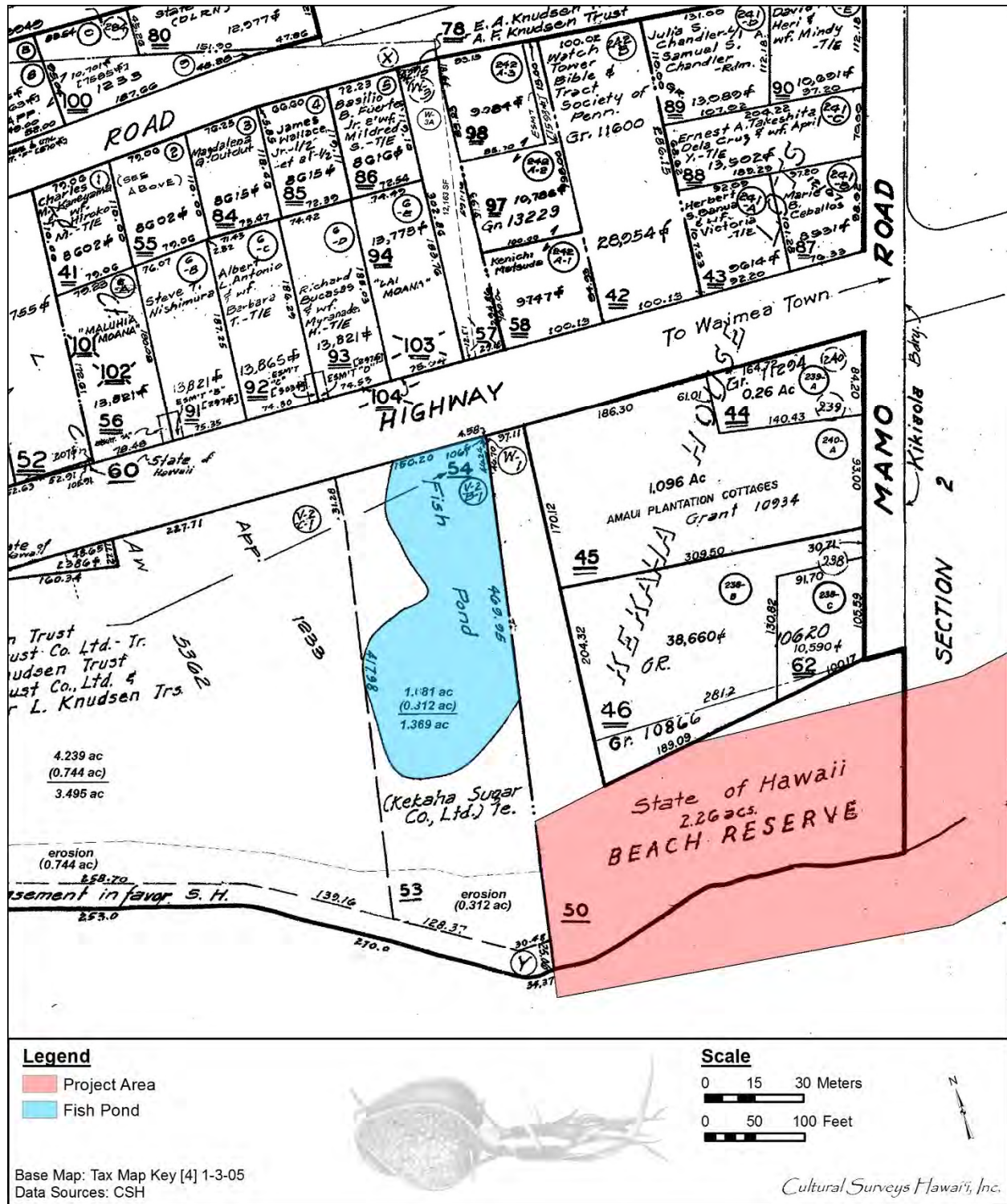


Figure 12. TMK: [4] 1-3-05, showing area of Naumu Land Commission Award (fishpond in parcel 53) approximately 20 m north of the west edge of the project area

the area residents. Among them the *koloa* (Hawaiian duck) and especially the *'alae* (Hawaiian gallinule) and *āe'o* (*kukuluāe'o*; Hawaiian stilt) were numerous (Von Holt 1985:78). All three were traditionally caught and consumed by the Hawaiians (Malo 1951:39).

Kekaha was watered by a spring called Kauhika located at the base of the *pali*. The spring had a fishpond, then taro *lo'i* and rice fields before flowing into the swamp (Knudsen and Noble 1945:62).

Most of the residents also lived in this area, near the water source and cultivatable lands. An anecdotal description is given by Eric Knudsen:

A row of grass houses extended all the way along the foothills from Waimea to Mana. Every house site had a name. To find a man you had to find his house name. The natives seemed to know every name and would keep sending you along until you finally came to the spot you were looking for.

At certain hours all the women sat in their houses and beat tapa cloth and as they beat they talked to one another in a tapa beater's code. They could send a message with great speed from Waimea to Mana. When the men returned from the mountains with fire wood or canoes, the woman that saw them at once tapped out the news and it flew from house to house with the result that every man, when he came home, found his house in order and no surprised visitors hanging around. The men tried to learn this secret code but never did, though an old man at Mana told my father that the men had tried for years to learn the secrets of the tapa code but were never able to do so.

The grass houses were all built in one general design—one big living room and two doors—one on each side and opposite to one another. One day my father noticed that all were built with their gable-ends east and west and the doors facing the ocean and the hills. He asked one of the men why that was so and he replied, 'Why, you know that Po, the abode of the dead, lies under the ocean just outside Polihale, where the cliffs and the ocean meet, and the spirits of the dead must go there. As the spirits wander along their way to Po, they will go around the gable-end of a house but if the house stood facing the other way, the spirits would walk straight through and it would be very disagreeable to have a spirit walk past you as you were eating your meal. In fact,' he continued, 'we can always tell when a battle has been fought by the number of spirits passing at the same time.' [Knudsen 1991:101, 102]

Between the swamp and the shoreline was a broad sand deposit, likely inhabited by fishermen on the *makai* side. The only canoe landing at Pu'upu'upa'akai ("salt piled in heaps") was through the reef on the shore directly *makai* of the sugar mill. A "large settlement" was there with "canoe sheds lining the beach" (Knudsen and Noble 1945:50).

The Reverend George B. Rowell arrived in Hawai'i with his wife Malvina Rowell in 1842 with the Tenth Company of American missionaries and arrived at the Wai'oli mission station on Kaua'i in 1843. Rowell became the minister at Wai'oli, taking over the duties of Reverend William Patterson Alexander. Rowell was then reassigned to Waimea and moved into the former home of Reverend Peter Gulick. Rowell was expelled from the church by the American Board of

Commissions for Foreign Missions, but soon opened a new Protestant church in Waimea called the Independent, or Makai Church. Rowell, who spoke fluent Hawaiian, served for 41 years on Kaua'i, passing away on 15 June 1884 (Hawaiian Encyclopedia.com: unpaginated). Rowell received a 565.56 acre coastal portion of the 1,123 acre Kīkīaola 'Ili as Grant 532 including the area immediately inland of the Kīkīaola Small Boat Harbor project area (see Figure 9).

Rice Cultivation

Commercial rice growing came to the Kekaha-Mānā plain in the 1860s. The area's most prolific planter was Leong Pah On, a Chinese immigrant (Joesting 1984:206). Pah On started farming in Waimea Valley and eventually met Valdemar Knudsen who allowed him to cultivate the swamplands. He imported Chinese laborers, drained the swamps with ditches, brought in water buffaloes, and eventually acquired more land. At his peak he had about 600 acres in rice throughout Mānā, Kekaha, and Waimea (Char and Char 1979:21).

Pah On's enterprise ended suddenly in 1922. The leases on government lands were expiring and H.P. Faye, manager of the Kekaha Sugar Company, convinced Pah On not to bid on new leases and let the sugar company take over control of the land. In return Kekaha Sugar would sublease the rice fields back to Pah On. The successful rice grower could have easily out-bid the sugar concern, but agreed to the plan. When Kekaha Sugar secured the leases its board of directors overruled Faye and denied any subleases to Pah On (Char and Char 1979:22). The 1906 Donn map (Figure 13) shows the extensive rice growing lands of Kekaha west of the Kīkīaola Small Boat Harbor project area.

Sugar Cultivation

The Reciprocity Treat of 1876 between the United States and Hawai'i was the impetus for the expansion of the sugar industry throughout the Islands. The first commercial cane in the Kekaha area was planted in 1878 near Pōki'i by Knudsen and a partner, Christian L'Orange. Hane P. Faye, Knudsen's nephew, was brought in as another grower, and it was he who dug the first artesian wells in the Islands at Kekaha. With a steady—but still small—water source, investors showed interest and the Kekaha Sugar Company was incorporated in 1898 (Joesting 1984:216-217; Wenkam 1977:63). The mill was set up on the sand lands of Kekaha at the *makai* edge of the swamp, its foundations set deep into the underlying coral (Knudsen and Noble 1945:161-162).

A railroad was constructed for the Kekaha Sugar Company in 1884 that ran from Waimea to the sugar mill at Kekaha. A visitor in 1965 described the main track:

. . . They have engineers only—no firemen—no brakemen. No brakes on cars. Roads are dead level. We passed cane fields and grazing pastures all in sight of ocean—as our course was parallel to beach and one mile from it. [Condé and Best 1973:141]

This railroad ran well inland of the of the Kīkīaola Small Boat Harbor project area (Figure 14).

This railroad generated a deal of excitement in 1920 when it became site of the first, last, and only train robbery to take place in the Hawaiian Islands. At the westernmost section of the Kekaha Sugar Company were the fields in the Mānā area, which extended to the current location of the airfield at Barking Sands. The families working on these fields lived at Mānā Camp. Due to the distance of this camp from the main office at Kekaha, a paymaster, Mr. Asser, was sent to the

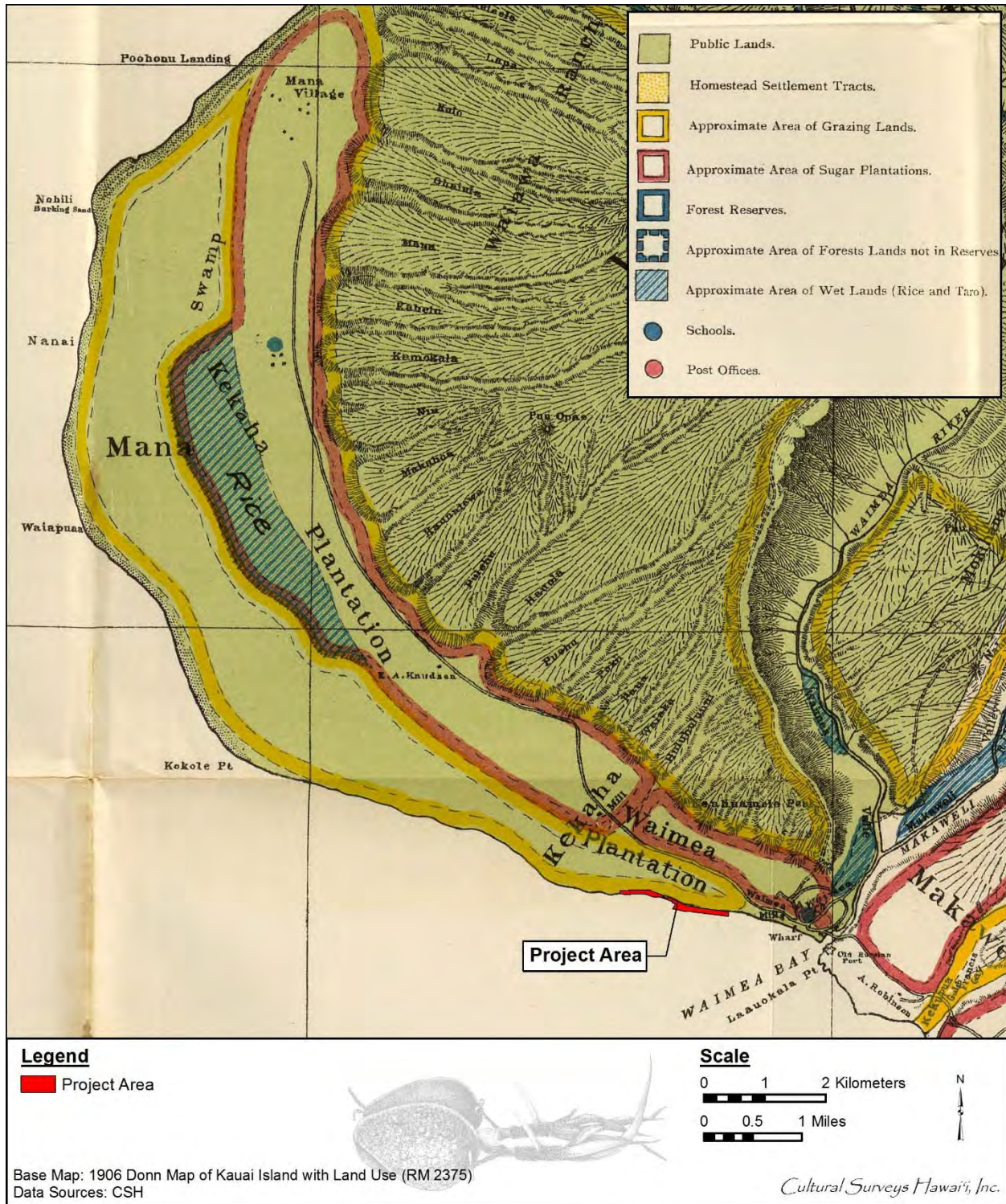


Figure 13. 1906 Donn map of Kauai Island with land use

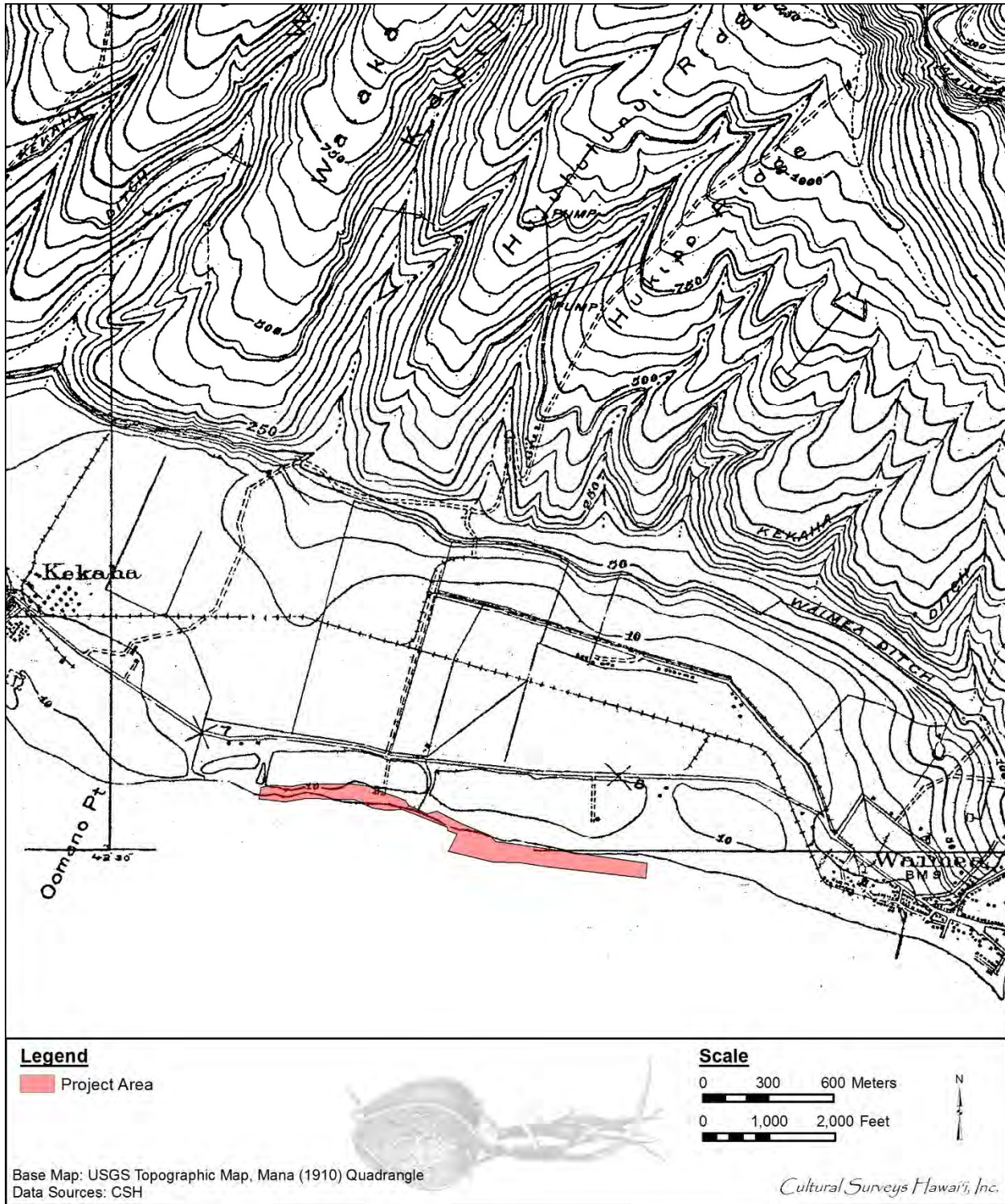


Figure 14. 1910 Mana USGS topographic quadrangle showing project area

camp each month. On 11 February 1920, the pay for all of the workers, \$11,000, was carried in individual envelopes by the paymaster, who rode on the plantation train. The tale of “The Great Train Robbery” was told by Philip Rice in the 28 February 1968 issue of *The Garden Island*:

The locomotive proceeded towards the camp, passing through the high cane. At a place where a sharp curve or poor condition of the track necessitated a reduction in speed to about that at which a man could walk, a person completely clothed in the garb of a cane loader stepped forth from the tall cane. Over his face was a part of an old towel with eye holes cut in it. . . .

He pointed a revolver at Mr. Asser and the locomotive engineer, ordered the locomotive stopped and that they dismount. The two complied, and the holdup man boarded the locomotive, started it, and proceeded toward Mana Camp, quite a distance beyond and out of sight of the holdup point. [Rice 1968]

When the robbery was discovered, a search was made where the locomotive had been abandoned. A trail of tabi (footwear of heavy blue denim) prints extended *makai* toward the swamp near the coast at Kekaha. A helpful local fisherman named Kaimiola Hali, who sold his fish to the workers at Mānā camp on their payday, helped in the search. When the tabi prints led into the peninsula swamp near Hali's house, he cautioned the men not to go into the swamp since it was too deep. The sheriff became suspicious of the man when he saw him try to obliterate one of the prints. The sheriff returned to the area and entered the swamp. A few feet from the end of the peninsula, he found a large lard can with several pay envelopes, containing all but \$250 of the stolen money. The sheriff then went to Hali's house and collected evidence and testimony pointing to Hali as the robber, including wet tabis hanging up to dry that exactly matched the tabi prints in the swamp. An exhausting trial was then conducted, and Hali was found guilty. In the trial, it came out that Hali often went to the theater at Mānā, which showed westerns, especially those that depicted outlaws and train robberies. It has been suggested that these films inspired Mr. Hali to commit the crime (Rice 1968).

In the 1900s, Kekaha Sugar Company employed about 1,000 people, of which approximately 300 families lived in plantation houses. The Kekaha Sugar Company saw expansion after 1907 when the construction of the plantation's major irrigation ditch was completed. The engineering feat brought water to the area from 8 miles up the Waimea River via a series of ditches, flumes, tunnels, and siphons (Thrum 1908:158-159).

In 1922, Kekaha Sugar Company began to drain the Mānā swamps to produce more sugar cane land (Hawaiian Sugar Planters' Association 2004: unpaginated). The project took 60 years to complete. In 1950, the Kekaha Sugar Company rebuilt their factory (Hibbard and Wichman 2008:13). The Kekaha Sugar Company also continued to use some of their land for cattle grazing. In 1951, they had a herd of 1,427 head on 10,816 acres of pasture. In 1969, the company again expanded, leasing the lands of the newly closed Waimea Sugar Mill Company. In 1987, the company had a record crop of 56,618 tons of sugar, but in 1988 the Kekaha Sugar Company was sold to JMB Realty as part of the buyout of Amfac Hawaii (Wilcox 1996:97). Also of interest is the restoration of the adjacent Chinese cemetery (that appears on a 1950 aerial photograph; Figure 15 and Figure 16), which took place in the same year.



Figure 15. 1950 Waimea to Kekaha Coast aerial photograph showing project area (prior to small boat harbor construction) (UH SOEST)



Figure 16. View of the Chinese/Japanese cemetery facing the project area, green vegetation line and *kiawe* to the northwest

In 1992, the company officially became part of Amfac Sugar Kaua'i West, and in 1955, the last sugar cane was harvested by this company on their Waimea lands. In 2000, Amfac Hawaii closed its last sugar operations at the Kekaha mill (Sommer 2001: unpaginated).

The Kīkīaola Small Boat Harbor was developed by the State of Hawai'i in 1959. The project area prior to the harbor development is shown in an aerial photograph from 1950 (see Figure 15) with the new harbor depicted in a 1963 USGS map (Figure 17) and the 1975 aerial photograph (Figure 18). Other than adjacent sugar cane fields and the Asian cemeteries, the immediate vicinity appears to have always been undeveloped.

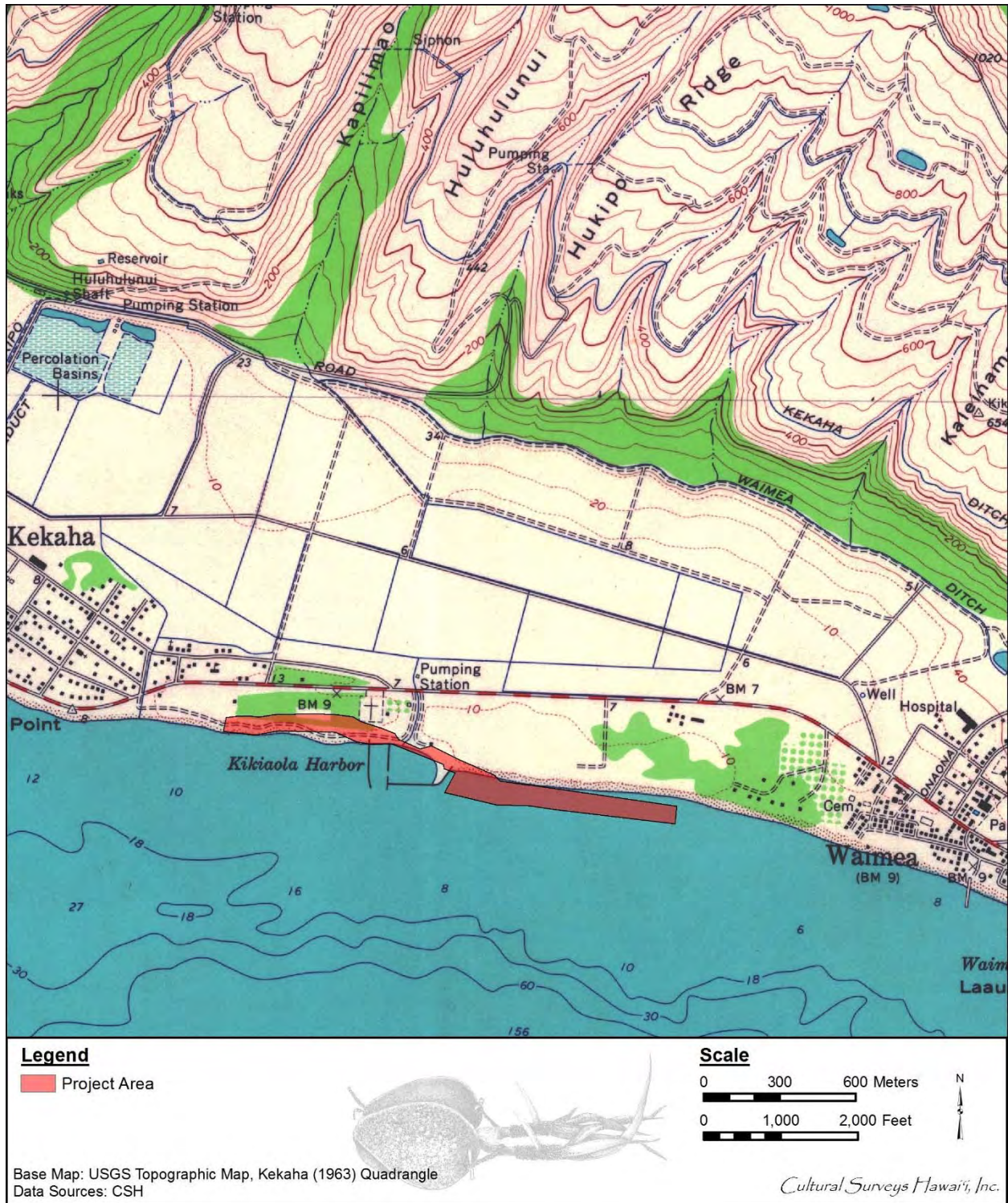


Figure 17. 1963 Kekaha USGS topographic quadrangle showing project area



Figure 18. 1975 Waimea to Kekaha Coast aerial photograph (UH SOEST)

Section 3 Previous Archaeological Research

There have been few large-scale systematic archaeological surveys in the Kekaha area. However, a sizeable number of small-scale studies have covered a variety of terrain and elevations in Kekaha. Table 1 provides information on each previous archaeological study in the Kekaha area in the vicinity of the current project area. The study area and previously identified historic properties in the area are depicted on Figure 19 and Figure 20. The remainder of this section discusses the findings of Bennett (1931) in Kekaha and the results of five previous archaeological studies within or immediately adjacent to the project area.

Wendell Bennett, in his 1931 Survey of Kaua'i (Bennett 1931:102-103), recorded seven major prehistoric sites in the vicinity of Kekaha (Sites 11-17). These are listed by Bennett as follows:

Site 11-Makahoe heiau and village site, on Niu ridge, Kaunalewa. A small, platform village shrine. Thrum describes the village as 'Four and one-half miles from the coast and at an altitude of 1200 feet. This village had about 0.5 acres of taro land besides the dry crops to depend on.' On the inland side of Niu ridge, small valleys are found with small streams and a few taro terraces. Petroglyphs were reported for this area.

Site 12-Hooneenuu heiau, along the ditch line inland from the government road near the center of Kaunalewa ridge.

Site 13-Burial caves, on Kaunalewa ridge.

Site 14-Two small heiau, near Waiawa, described by Thrum as a 12 by 20-foot shrine, and an 18 by 28-foot shrine.

Site 15-House sites and taro terraces, in Waiawa valley. Some taro lines may still be seen in lower Waiawa valley. Many house sites are in evidence. They consist for the most part of leveled ground, faced in front with stone, or merely outlined with stone.

Site 16-Hauola heiau, in Hoesa valley at the base of Hauola ridge.

Site 17-Burial caves, on Pokii ridge. [Bennett 1931:102-103]

Bennett provides greater detail on these sites in his text, but the important point is that his descriptions show habitation evidence in small valleys dissecting Niu Ridge, as well as on the ridge itself. Waiawa Valley contains "many" house sites and associated taro *lo'i*, and *heiau* (temples) appear both in valleys and on ridges.

Bennett's survey apparently predated at least some of the land impact associated with sugar growing and was early enough to record sites at the base of the Waimea slope, allowing us to take note of the former importance of this area during pre-Contact times.

Table 1. Previous Archaeological Studies Conducted in the Vicinity of the Project Area

Reference	Type of Study	Location	Results
Bennett 1931	Recordation of major prehistoric sites	Island-wide survey including Kekaha	Described seven sites in the Kekaha area: <i>heiau</i> , burial caves, habitation, and agricultural features
Cox 1975	Archaeological monitoring	Waimea Town sewer	Nine burials (SIHP #s 50-30-05-3251 through -3256); two cultural deposits (-3244 and -3245); Waimea Town (-3250); and a historic house platform (-3246)
Bordner 1977	Reconnaissance survey	Kekaha Beach Park	No significant findings
Sinoto 1978	Reconnaissance survey	Valleys <i>mauka</i> of Kekaha Town	Sites located in valleys of Waiakea, Pawa, Waipoao, Waiawa, Kahoana, and Hō'ea
Ching 1982	Reconnaissance survey	Proposed landfill near Barking Sands	No significant findings
McMahon 1988	Field check	Northrup King, a 132-acre property	No historic properties observed, but probability of burials in beach area regarded as high
Ida and Hammatt 1992	Archaeological inventory survey	Kekaha Town Cemetery	No significant findings
Spear 1992	Archaeological monitoring	West of Kekaha Town	No significant findings
Folk and Hammatt 1993	Archaeological inventory survey	Proposed landfill expansion near Barking Sands	No significant findings
Sinoto 1993	Archaeological inventory survey	Kikiaola Land Co. Portable Batch Plant	No significant findings
Folk and Hammatt 1994a	Archaeological inventory survey	National Guard Rifle Range, Barking Sands	No significant findings
Folk and Hammatt 1994b	Archaeological inventory survey	Kekaha Town	No significant findings
Masterson et al. 1994	Archaeological inventory survey	Kekaha Town	Two cultural layers (SIHP #s 50-30-05-700 and -703); two human burials (-701 and -702)

Reference	Type of Study	Location	Results
Hammatt 1996	Subsurface testing	Kekaha Town	No significant findings
Hammatt and Chiogioji 1996	Archaeological assessment	Kīkīaola Lands	Field inspection of property; noted historic areas, including two cemeteries (SIHP # 50-30-05-612 [Waimea Japanese Cemetery] and -613 [Chinese Cemetery]; numbers not given in report) and burials near Waimea Plantation Cottages (-1853 and -1854), and Waimea Mill building
Heidel et al. 1997	Archaeological inventory survey	Kekaha Town	Four human burials (SIHP # 50-30-05-619)
Hammatt and Shideler 1999	Archaeological monitoring	Kekaha Town	No significant findings
Major and Carpenter 2000	Subsurface testing	Waimea State Recreational Pier	No significant findings
Cleghorn 2002	Archaeological inventory survey	United Church of Christ lands	Identified three historic properties, Waimea Parsonage site (SIHP # 50-30-05-1037), Waimea Dispensary (-1038), and the Transit of Venus marker (-1039)
Tulchin and Hammatt 2003	Archaeological inventory survey	'Akialoa Rd and Kaumuali'i Hwy	No significant findings
Hammatt 2004	Inadvertent burial discovery and treatment report	Aloha Kaua'i Villas, Kīkīaola	Three to five human burials discovered during excavation of a pool (SIHP # 50-30-05-3911)
Cordy et al. 2005	Archaeological assessment	Coastal Kekaha parcel	No significant findings (other than cemetery)
Hammatt and Shideler 2006	Archaeological literature review and field check	Kekaha Elementary School	On the basis of field check alone Kekaha Elementary School thought to have high archaeological potential; an archaeological inventory survey recommended
Stein and Hammatt 2006	Archaeological monitoring and inadvertent burial recovery	0.23-acre Kekaha parcel	Two burials (SIHP # 50-30-05-3941)
Olson et al. 2006	Archaeological assessment	12-acre Kīkīaola parcel	No significant findings

Reference	Type of Study	Location	Results
Whitman et al. 2008	Archaeological assessment	Kekaha Elementary School	No significant findings
Powell et al. 2009	Historical summary	1.369-acre Kekaha parcel	Interviews record presence of human remains on property observed during filling of a pond; (no archaeological documentation conducted; no SIHP #s assigned)
Viguie and Powell 2009	Archaeological monitoring	DHHL Kekaha residences	Disturbed/disarticulated human skeletal remains (SIHP # 50-30-04-3937)
Altizer and Hammatt 2010	Archaeological inventory survey	New and Old Government Rds, Waimea	Eight historic properties identified: portions of new and old Government Rd (SIHP # 50-30-05-2107); a pre-Contact habitation terrace (-2108); a plantation-era stacked wall (-2109); a mound (-2110); a series of agricultural clearing mounds (-2111); a terrace (2112); a historic house site (-2113); and a <i>heiau</i> (-2114)
Wilkinson and Hammatt 2010	Archaeological monitoring	Kekaha Elementary School	No significant findings
Coward and Hammatt 2011	Archaeological literature review and field inspection	10-acre Kekaha parcel	No historic preservation mitigation measures recommended for current scope of project
Hammatt and Shideler 2011	Archaeological literature review	Kekaha-Mauka Kekaha Ahupua'a	Project area contains no known historic properties; generally low probability of finding highly significant sites
Hammatt and Shideler 2013	Archaeological monitoring	Kaumuali'i Hwy, vicinity of Kekaha	No significant findings

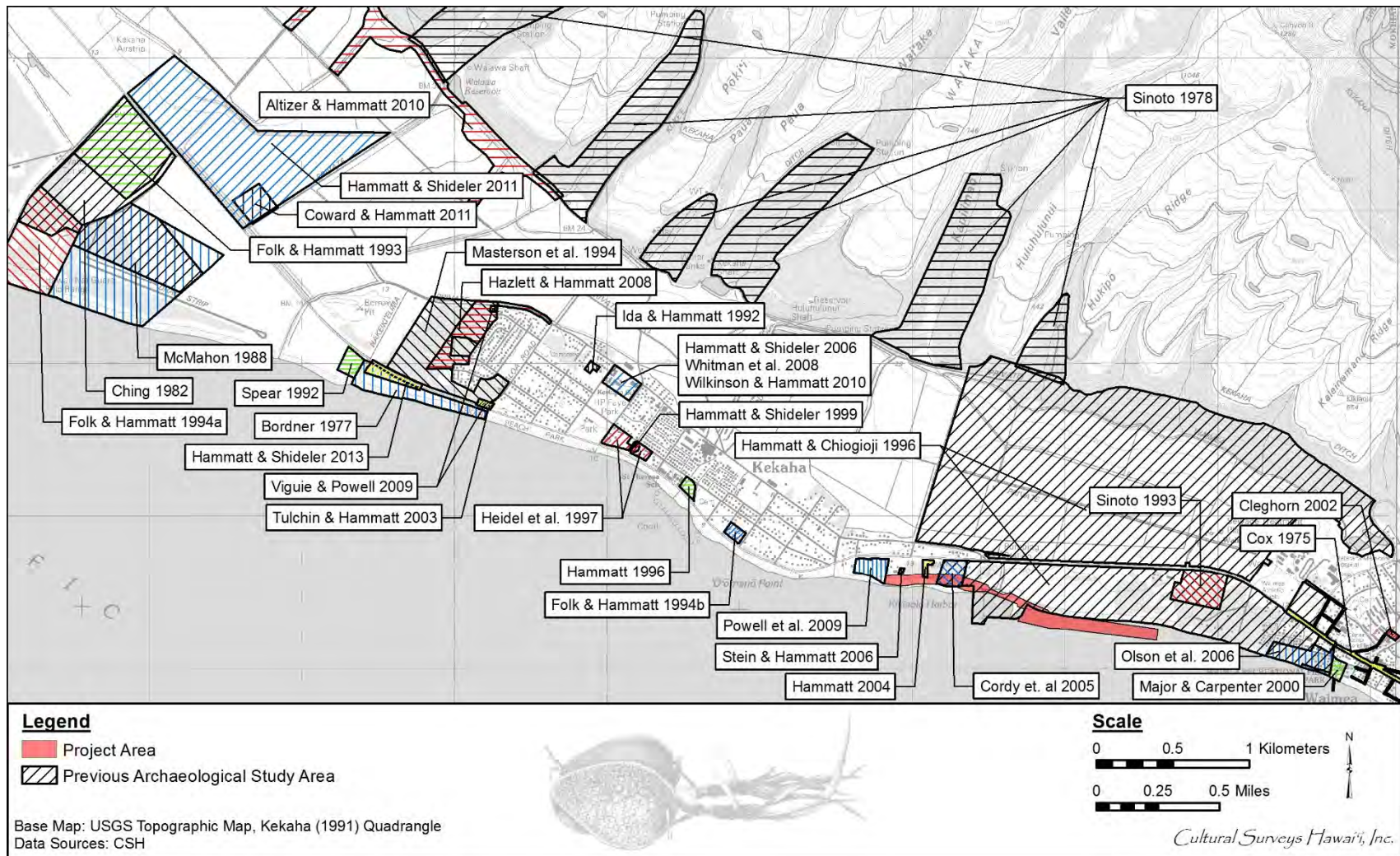


Figure 19. Portion of the 1991 Kekaha USGS 7.5-minute topographic quadrangle showing previous archaeological studies in the Kekaha area

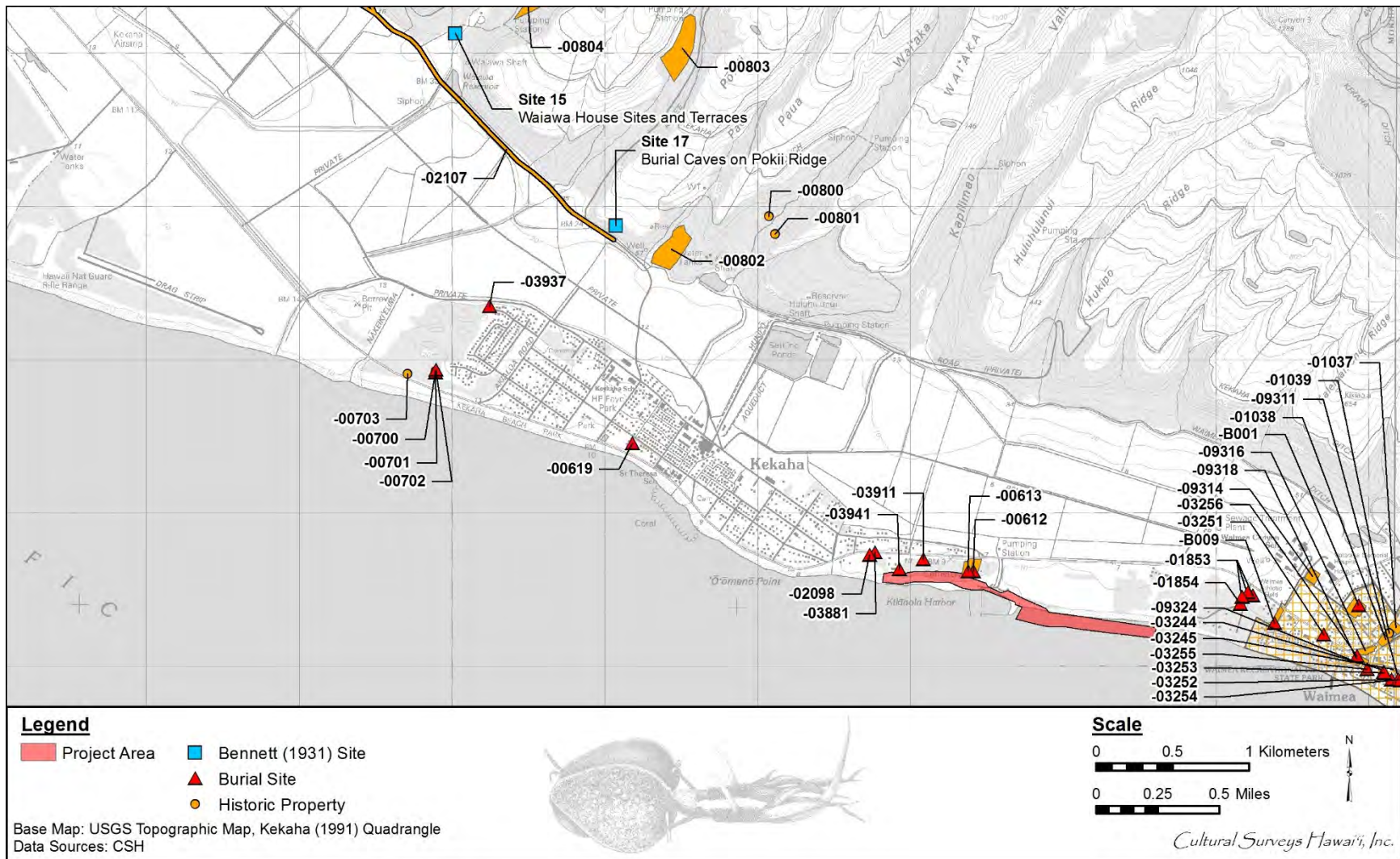


Figure 20. Portion of the 1991 Kekaha USGS 7.5-minute topographic quadrangle showing previously identified historic properties in the Kekaha area

The five closest and most germane studies to the Kīkīaola Small Boat Harbor Sand Bypass project area are summarized below.

3.1.1 Hammatt and Chiogioji 1996

CSH (Hammatt and Chiogioji 1996) carried out an archaeological and historical assessment and field inspection of Kīkīaola lands with the project area including the Kīkīaola Small Boat Harbor and extensive lands just back from the coast to the west and east. Historic properties discussed include the Chinese Cemetery (SIHP # 50-30-05-613 [SIHP #s for the cemeteries not given in report]) and Japanese Cemetery (50-30-05-612) just north of the west end of the Kīkīaola Small Boat Harbor Sand Bypass project area, burial sites SIHP #s 50-30-05-1853 and 50-30-05-1854 by the Waimea plantation cottages, the Catholic Church and Cemetery, and the Waimea Sugar Mill building.

3.1.2 Hammatt 2004

CSH (Hammatt 2004) prepared a letter report summarizing the inadvertent discovery of human skeletal remains at the Aloha Kaua'i Villas (4491 Kīkīaola Place) at Kīkīaola close to the west end of the Kīkīaola Small Boat Harbor Sand Bypass project area. A minimum of three human burials were encountered during pool excavation and were designated SIHP # 50-30-05-3911 Features A–C. A description of the stratigraphy within the pool excavation and skeletal inventories are presented.

3.1.3 Cordy et al. 2005

CSH (Cordy et al. 2005) carried out an archaeological assessment with subsurface testing for an 8.2-acre parcel at Kīkīaola close to the west end of the Kīkīaola Small Boat Harbor Sand Bypass project area. The fieldwork consisted of the excavation of 52 backhoe trenches and documentation of the sediment profiles. No sites were identified. Although artifacts, particularly bottles, dating to the early and mid-twentieth century were identified there was no discrete horizontal or vertical aggregation of artifacts such as to warrant site designation.

3.1.4 Stein and Hammatt 2006

CSH (Stein and Hammatt 2006) reported on archaeological monitoring and inadvertent burial recovery for an approximately 0.23-acre parcel within the Kekaha House Lots (TMK: [4] 1-3-05:45) quite close to the west end of the Kīkīaola Small Boat Harbor Sand Bypass project area. In the course of excavations for a septic system with leaching bed the crew discovered human remains. Two human burials were designated SIHP # 50-30-05-3941. Due to the lack of historical artifacts or coffins associated with the remains and also because both burials were found in either a flexed or semi-flexed position these burials were regarded as likely pre-Contact interments. Dog bones were also observed.

3.1.5 Powell et al. 2009

Scientific Consultant Services (Powell et al. 2009) produced a historical summary of the former fishpond location and evaluation of the potential for human skeletal remains at TMK: [4] 1-3-005:053 located immediately west of the west end of the Kīkīaola Small Boat Harbor Sand Bypass project area. Information gathered suggests that Kekaha Sugar Company established a fishpond in 1957 in an existing pond area on Parcel 53 to raise tilapia to feed on the vegetation clogging

irrigation ditches. SCS interviewed 74-year-old Willy Martin, a former employee of Kekaha Sugar Company, who was born and raised in Kekaha. Sometime in 1959 or 1960 Mr. Martin was instructed by the plantation to fill in the fishponds on Parcel 53. The “fill” material was to come from a sand dune on the western side of Parcel 40. Parcel 53 is immediately adjacent on the eastern boundary of Parcel 40. Both parcels were owned by the Knudsen family. “There were a lot of bones” collected in burlap bags and interred in the pond as it was filled (Powell et al. 2009:10.)

Section 4 Archaeological Monitoring Provisions

An SHPD response to a *National Historic Preservation Act (NHPA) Section 106 Consultation –U.S. Army Corps of Engineer’s Request for Consultation Kikiaola Small Boat Harbor – Sand Bypass Project, POH-2010-00244 Mana Ahupua‘a, Waimea District, Island of Kaua‘i TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050* dated April 4, 2014 (Log No. 2014.00581, 2014.00896, Doc. No. 1404SL04; included here as Appendix A) specifically requests an archaeological monitoring plan for the review and acceptance of the SHPD prior to issuance of requisite permits.

Under Hawai‘i State historic preservation legislation, “Archaeological monitoring may be an identification, mitigation, or post-mitigation contingency measure. Monitoring shall entail the archaeological observation of, and possible intervention with, on-going activities, which may adversely affect historic properties” (HAR §13-13-279-3).

4.1 Specific Monitoring Provisions

Hawai‘i State historic preservation legislation governing archaeological monitoring programs requires that each monitoring plan discuss eight specific items (HAR §13-13-279-4). The monitoring provisions below address these eight requirements in terms of archaeological monitoring for the excavations within the current project area.

1. Anticipated Historic Properties:

The USACE has affirmed their previous determination that “the proposed action will have no adverse effect on historic or cultural resources” (28 March 2014; email from Jessie K. Paahana [Corps] to Susan A. Lebo [SHPD]). In consultation with the SHPD this archaeological monitoring program has been established to address any (pre- and/or post-Contact) historic properties (e.g., cultural deposit, human remains, artifacts) that may be encountered during extraction of fill from the borrow site or as may have been exposed at the placement site. The proximity of the placement site to a historic cemetery suggests a heightened prospect of post-Contact human skeletal remains being exposed in the vicinity.

2. Locations of Historic Properties:

Historic properties are not anticipated in the borrow area which is understood as newly accreted sand. There is a higher probability of post-Contact burials in the immediate vicinity of the historic cemetery in the west portion of the project area.

3. Fieldwork:

As per the SHPD consultation letter dated 4 April 2014, monitoring will consist of on-site monitoring to address any concerns while the project team sets up the staging area and the bridge, and starts the initial borrow operations, etc. (this is anticipated to take 1-2 weeks).

After the team has the bridge, road, staging, etc. in place, along with the temporary preservation fencing, and has a layer of sand down in the fill area, it may be possible to switch to spot monitoring once a week, and possibly later to on-call monitoring with written concurrence from SHPD. Any departure from full-time on-site monitoring of all ground

disturbance will occur only following consultation with and written concurrence from the SHPD.

The monitoring fieldwork will likely encompass the documentation of subsurface archaeological deposits (e.g., trash pits, structural remnants) and will employ current standard archaeological recording techniques. This will include drawing and recording the stratigraphy of excavation profiles where cultural features or artifacts are exposed as well as representative profiles. These exposures will be photographed, located on project area maps, and sampled. Photographs and representative profiles of excavations will be taken even if no historically significant sites are documented. As appropriate, sampling will include the collection of representative artifacts, bulk sediment samples, and/or the on-site screening of measured volumes of feature fill to determine feature contents.

In the event of significant finds, the SHPD will be notified. If human remains are identified, construction activity in the vicinity will be stopped and no exploratory work of any kind will be conducted unless specifically requested by the SHPD. All human skeletal remains encountered during excavation will be handled in compliance with HAR §13-13-300 and HRS §6E-43.

4. Archaeologist's Role:

The on-site archaeologist will have the authority to stop work immediately in the area of any findings so that documentation can proceed and appropriate treatment can be determined. In addition, the archaeologist will have the authority to slow and/or suspend construction activities in order to ensure that the necessary archaeological sampling and recording can take place.

5. Coordination Meeting:

Before work commences on the project, an archaeologist shall hold a coordination meeting to orient the construction crew to the requirements of the archaeological monitoring program. At this meeting the monitor will discuss the procedures for both on-site and on-call monitoring. The archaeologist will also emphasize his or her authority to temporarily halt construction and state that all finds (including objects such as bottles) are the property of the landowner and may not be removed from the construction site. At this time it will be made clear that the archaeologist must be on-site until such time as the written consent of the SHPD is acquired to go to weekly spot monitoring or on-call monitoring. The importance of an archaeologist's presence during any excavation within Jaucas sand deposits will be stressed.

6. Laboratory Work:

Laboratory work will be conducted in accordance with HAR §13-13-279-5(6). Laboratory analysis of non-burial related finds will be tabulated and standard artifact and midden recording will be conducted. Artifacts will be documented as to provenience, measurements, mass, type of material, and presumed function. Photographs of representative artifacts will be taken for inclusion in the archaeological monitoring report. Bone and shell midden materials will be sorted down to species, when possible, and then tabulated by provenience.

As appropriate, collected charcoal material obtained within intact cultural deposits will be analyzed for species identification. Charcoal samples ideal for dating analyses will be sent to Beta Analytic, Inc. for radiocarbon dating. If appropriate, artifacts may be sent to the University of Hawai'i-Hilo Geoarchaeology Lab for Energy-Dispersive X-ray Fluorescence (EDXRF) analysis in order to identify and possibly geographically locate the source material. All analyzed samples, provenience information, and results will be presented in table form within the archaeological monitoring report.

7. Report Preparation:

The report will contain sections on monitoring methods, archaeological results, stratigraphy, and results of laboratory analyses, and it will present a synthesis of these results. The report will address the requirements of a monitoring report (pursuant to HAR §13-13-279-5). Photographs of excavations will be included in the monitoring report even if no historically significant sites are documented. Should burial treatment be completed as part of the monitoring effort, a summary of this treatment will be included in the monitoring report. Should burials and/or human remains be identified, CSH will provide all appropriate additional written documentation (e.g., letters, memos, reports) that may be requested by the SHPD.

8. Archiving Materials:

All burial materials will be addressed in accordance with SHPD directives. Materials not associated with burials will be temporarily stored at CSH's Kaua'i office until an appropriate curation facility is selected, in consultation with the landowner and the SHPD.

4.2 Additional Duties of the Archaeological Monitor

The archaeological monitor will coordinate with the contractor on all aspects of the project and with the contractor and the SHPD should there be any team consideration of utilizing other areas for truck haul routes (as per SHPD response dated 4 April 2014, see present Appendix A, Point 4).

Section 5 References Cited

Altizer, Kendy and Hallett H. Hammatt

- 2010 An Archaeological Inventory Survey for a Proposed Rock Crushing Project Along Portions of the New and Old Government Roads, Waimea Ahupua'a, District of Waimea, Island of Kaua'i TMK: [4] 1-2-002:001, Cultural Surveys Hawai'i, Kailua, HI

Bennett, Wendell C.

- 1931 *The Archaeology of Kaua'i*. Bernice P. Bishop Museum Bulletin 80, Honolulu.

Bordner, Richard M.

- 1977 *Cultural Reconnaissance Report for Kekaha Beach Shore Protection, Kekaha, Kona, Kaua'i, State of Hawaii*. Archaeological Research Center Hawaii, Inc., Lawa'i, Kaua'i.

Char, Tin-Yuke, and Wai Jane Char

- 1979 *Chinese Historic Sites and Pioneer Families of Kauai*. Hawaii Chinese History Center, Inc., Honolulu.

Ching, Francis K.W.

- 1982 Archaeological Reconnaissance of 3 Sites for Proposed Kauai Central Sanitary Landfill Project, Kekaha, Kipu, and Kumukumu, Kauai Island TMK 1-2-02:1, 9, 21, 40; 3-4-06:12; and 4-7-04:1. Archaeological Research Center Hawaii, Inc., Lawa'i, Kaua'i.

Cleghorn, Paul L.

- 2002 *Archaeological Inventory Survey of United Church of Christ Lands at Waimea, Kaua'i (TMK 1-6-10:02 por.)*. Pacific Legacy, Inc., Kailua, Hawai'i.

Condé, Jesse C., and Gerald M. Best

- 1973 *Sugar Trains*. Glenwood Publishers, Felton, California.

Cordy Dominique, Constance R. O'Hare, David Shideler and Hallett H. Hammatt

- 2005 *Archaeological Assessment for an 8.2 Acre Parcel at Kikīaola, Waimea Ahupua'a, Kona District, Island of Kaua'i* Cultural Surveys Hawaii, Kailua, Hawai'i.

Coward, Erin and Hallett H. Hammatt

- 2011 *An Archaeological Literature Review and Field Inspection for a 10-acre Agricultural Field Office Kekaha, Waimea Ahupua'a, District of Waimea, Island of Kaua'i TMK: [4] 1-2-002:001(por.)*, Cultural Surveys Hawai'i, Kailua, HI

Cox, David Walter

- 1975 *Burials and Other Archaeological Observations, Waimea Town Sewerage System, Phase II, Waimea, Kona, Kaua'i, Hawai'i*. Archaeological Research Center Hawaii, Inc., Lawa'i, Kaua'i.

Damon, Ethel M.

- 1931 *Koamalu*. 2 vols. Privately printed by the Honolulu Star-Bulletin Press, Honolulu.

Dixon, George

- 1968 *A Voyage Round the World: But More Particularly to the North-West Coast of America*. Da Capo Press, New York.

Donn, John M.

- 1906 Based on 1903 map of "Kauai Hawaiian Islands" by Walter E. Wall with data from private surveys by John M. Donn. Land use as of 1906 added to map. Registered Map 2375. Available at the Hawai'i Land Survey Division, Department of Accounting and General Services, 1151 Punchbowl Street, Room 210, Honolulu.

Evans, T. J. K.

- 1921 Kekaha Cane and Pasture Lands, Waimea, Kona, Kauai (Map). (HTS Plat 3026-B) Hawaii Territory Survey, Walter E. Wall, Surveyor.

Folk, William H., and Hallett H. Hammatt

- 1993 *Archaeological Inventory Survey and Subsurface Testing at the Kekaha Phase II Landfill Site (TMK 1-2-02:9)*. Cultural Surveys Hawaii, Kailua, Hawai'i.
- 1994a *Archaeological Inventory Survey and Subsurface Testing at the Hawaii Army National Guard Firing Range at Kekaha, Kaua'i (TMK 1-2-02:21), with Historical Research by Gerald K. Ida*. Cultural Surveys Hawaii, Kailua, Hawai'i.
- 1994b *Archaeological Inventory Survey and Sub-surface Testing of Houselots on 2.5 Acres at Kekaha, Kaua'i, (TMK 1-3-04:6&15) with an Historical and Cultural Overview by Gerald Ida*. Cultural Surveys Hawai'i, Kailua, Hawai'i.

Foote, Donald E., Elmer L. Hill, Sakuichi Nakamura, and Floyd Stephens

- 1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*. U.S. Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawai'i Agricultural Experiment Station. U.S. Government Printing Office, Washington, D.C.

Giambelluca T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte

- 2013 Online Rainfall Atlas of Hawai'i. *Bulletin of the American Meteorological Society volume 94, pp. 313-316, doi: 10.1175/BAMS-D-11-00228.1*. Electronic document, <http://rainfall.geography.hawaii.edu> (accessed 27 September 2013).

Google Earth

- 2012 Aerial photographs of Hawaii. Google Inc., 1600 Amphiteatre Parkway, Mountain View, California. Available online at www.google.com/earth.html.

Gray, James W., surveyor

- 1875 "Boundary of the Ahupuaa of Waimea" surveyor's notes included in No. 28 Certificate of Boundaries, Land of Waimea, District of Waimea, Island of Kauai, Decision rendered: July 10, 1875 by Duncan McBryde, Commissioner of Boundaries for the Island of Kauai.

Hammatt, Hallett H.

- 1996 *Letter Report on Archaeological Subsurface Testing of an Approximately one-acre parcel (TMK 1-3-03:50), Kekaha, Kaua'i*. Cultural Surveys Hawai'i, Kailua, Hawai'i.

- 2004 *Inadvertent Discovery of Human Skeletal Remains at the Aloha Kaua'i Villas (4491 Kikiaola Place), Kikiaola, Waimea Ahupua'a, Kona District, Island of Kaua'i (TMK 1-2-13:31)*. Cultural Surveys Hawai'i, Kailua, Hawai'i.

Hammatt, Hallett H. and Rodney Chiogioji

- 1996 *Archaeological and Historical Assessment and Field Inspection of Kikiaola Lands in the Ahupua'a of Waimea, Kona District, Island of Kaua'i*. Cultural Surveys Hawaii, Inc., Kailua, Hawai'i.

Hammatt, Hallett H., and David W. Shideler

- 1999 *An Archaeological Monitoring Report at a 6-Acre Parcel in Kekaha, Ahupua'a of Waimea, Kona District, Island of Kaua'i (TMK 1-3-03:15, 19, 23)*. Cultural Surveys Hawai'i, Kailua, Hawai'i.
- 2006 *Archaeological Literature Review and Field Check Study of Eight DOE Schools, Island of Kaua'i Hawai'i Inter-Island DOE Cesspool Project* Cultural Surveys Hawai'i, Kailua, Hawai'i.
- 2011 *Archaeological Literature Review of Eight Possible Locations for a Kaua'i Municipal Solid Waste Landfill: Kekaha-Mauka, Kekaha Ahupua'a; Pu'u o Pāpa'i, Makaweli Ahupua'a; Umi, Wahiawa Ahupua'a; Kōloa, Pā'ā Ahupua'a; Kīpū, Ha'ikū Ahupua'a; Kālepa, Hanamā'ulu Ahupua'a; Ma'alo, Wailua Ahupua'a; and Kumukumu, Keālia Ahupua'a*. Cultural Surveys Hawai'i, Kailua, Hawai'i.
- 2013 *Archaeological Monitoring Report for the Kaumuali'i Highway Emergency Shoreline Improvements, Vicinity of Kekaha, MP 27 Project No. 50A-01-13, Waimea Ahupua'a, Waimea District, Kaua'i Island TMK: (4) 1-2-002: Kaumuali'i Highway ROW por. and 007 por.* Cultural Surveys Hawai'i, Kailua, Hawai'i.

Handy, E.S. Craighill, and Elizabeth G. Handy

- 1972 *Native Planters in Old Hawaii: Their Life, Lore, and Environment*. Bernice P. Bishop Museum Bulletin 233, Honolulu.

Hawaiian Encyclopedia.Com

- 2014 Reverend George B. Rowell. On-line document. Mutual Publishing. <http://www.hawaiianencyclopedia.com/kauai-history.asp> (accessed on April 7, 2014).

Hawaiian Ethnological Notes (HEN)

- 1885 *Papers by Lahainaluna Students After Interviews with Old Residents of Kauai*. Hawaiian Ethnological Notes, Vol. 1, Lahainaluna Students Papers, Hms. Misc. No. 15. Waimea, Kauai. Bishop Museum Archives, Honolulu.

Hawaiian Sugar Planters' Association

- 2004 "Register of the Kekaha Sugar Company 1880-1946." *Plantation Archives*. Online Document. Available at http://www2.hawaii.edu/~speccoll/p_kekaha.html, accessed on April 10, 2014.

Hazlett, Alexander and Hallett H. Hammatt

- 2008 *Archaeological Monitoring Report for Lot B of the Kekaha Housing Project, Kekaha, Waimea Ahupua'a, Kona District, Island of Kaua'i (TMK [4] 1-2-002:032)*, Cultural Surveys Hawai'i, Kailua, HI

Heidel, Melody J., William H. Folk, and Hallett H. Hammatt

- 1997 *Archaeological Inventory Survey and Sub-surface Testing of House Lots on a 6-Acre Parcel at Kekaha, Island of Kaua'i, (TMK 1-3-03:15, 19, 23), with an Historical and Cultural Overview by Gerald Ida*. Cultural Surveys, Hawaii, Kailua, Hawai'i.

HEN (Hawaiian Ethnological Notes)

- 1885 HEN VI, Hms 43, informant Kanakahelela. Bernice Pauahi Bishop Museum Archives, Honolulu.

Hibbard, Don J. and Wendy Wichman

- 2008 Kekaha Sugar Company, Sugar Mill Building, 8315 Kekaha Road, Kekaha, Kauai County, Hawaii: Photographs, Written Historical and Descriptive Data, Field Records. Historic American Engineering Record. National Park Service/U.S. Department of the Interior. Washington, D.C.

Hofgaard, Christopher B.

- 1991 "The Story of Piilani," In *The Kauai Papers*, p. 108-117. Kauai Historical Society, Līhu'e, Kaua'i.

Ida, Gerald, and Hallett H. Hammatt

- 1993 *Archaeological Subsurface Survey of The Campos Property, Waimea, Kaua'i (TMK 1-6-01:4)*. Cultural Surveys Hawai'i, Inc. Kailua, Hawai'i.
- 1992 *Archaeological Inventory Survey with Sub-surface Testing of a One-Acre Lot, Kekaha, Kaua'i (TMK 1-3-02:2 lots 86A and 86B)*. Cultural Surveys Hawaii, Kailua, Hawai'i.

Imlay, L. E.

- 1891 Map of Kauai compiled from Government Surveys and Private Surveys of Land Belonging to Gay and Robinson, Tracing by H.E. Newton in 1903.

Joesting, Edward

- 1984 *Kaua'i: The Separate Kingdom*. University of Hawaii Press and Kauai Museum Association, Ltd., Honolulu.

Kelly, Marion

- 1971 *Kekaha: 'Aina Malo'o: Historical Survey and Background of Kaloko and Kuki'o ahupua'a, North Kona, Hawaii*. Bernice P. Bishop Museum, Department of Anthropology Report, 71-2, Honolulu.

Kikuchi, William K.

- 1985 *The Waimea Twelve-Inch Transmission Main, Waimea Intake Towards Waimea Town, Waimea, Island of Kauai*. Copy On file at the DLNR/SHPD library, Kapolei, Hawai'i.

Knudsen, Eric A.

1991 Early Days at Waiawa. In *The Kauai Papers*, p. 97-104. Kauai Historical Society, Līhu'e, Kaua'i.

Knudsen, Eric A., and Gurre P. Noble

1945 *Kanuka of Kauai*. Tongg Publishing Co., Honolulu.

Knudsen, Valdemar

1866 Letter to John Dominis, Commissioner of Lands for the Crown and Land Agent, Dated August 1, 1866, Hawaii State Archives.

Lydgate, John M.

1991 William E. Rowell's Reminiscences of Waimea. In *The Kauai Papers*, p. 89-96. Kauai Historical Society, Lihue.

Major, Maurice and Alan Carpenter

2000 *Archaeological Testing at Waimea State Recreational Pier, Waimea, Kaua'i*. Department of Land and Natural Resources, State Historic Preservation Division, Kapolei, Hawai'i.

Malo, David

1951 *Hawaiian Antiquities (Moolelo Hawaii)*. Translated from the Hawaiian by Nathaniel B. Emerson, 1898. Bishop Museum Special Publication, No. 2. 2nd edition, Honolulu.

Masterson, Ian, Hallett H. Hammatt, William H. Folk, and Gerald K. Ida

1994a *Archaeological Inventory Survey of Kekaha Housing Project (TMK 1-2-12:38, 1-2-02:32,34 & 38)*. Cultural Surveys Hawaii, Kaua'i, Hawai'i.

Masterson, Ian A., William H. Folk, and Hallett H. Hammatt

1994b *Archaeological Inventory Survey and Sub-surface Testing of the Proposed Kekaha Agricultural Park in 157 Acres at Kekaha, Kaua'i, (TMK 1-2-02:1 portion)*. Cultural Surveys Hawaii, Kailua, Hawai'i.

McMahon, Nancy

1988a *Field Inspection of Sand Mining Activities at Kawaieie, Kauai, TMK 1-2-02:1*. Copy on file at DLNR/SHPD library, Kapolei, Hawai'i.

1988b *Field Check of Northrup King Digging, Mana, Waimea, Kauai, TMK 1-2-02:40*. Copy on file at DLNR/SHPD library, Kapolei, Hawai'i.

Monsarrat, M.D.

1885 Map of Kikiaola. HTS Plat 3022. Archived at Hawai'i Land Survey Division, Department of Accounting and General Services, 1151 Punchbowl St., Room 210, Honolulu.

Native Register

1846-48 Native Register of Kuleana Claims to Quiet Land Titles in the Hawaii Islands. Hawai'i State Archives, Kekāuluohi Building, 364 South King Street, Honolulu, Hawai'i.

Olson, Jennifer, Constance R. O'Hare, and David W. Shideler

2006 *Archaeological Assessment with Subsurface Testing for a 12-acre Coastal Parcel at Kīkīāloa, Waimea Ahupua'a, Waimea District (Kona Moku), Island of Kaua'i, TMK: (4) 1-6-008:001*. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.

Powell, James, Wilson, Jon and Robert L. Spear

2009 *An Historical Summary of the Former Fishpond Location and Potential Human Remains Existing on a 1.369 Acre Parcel in Kekaha, Kapilimoa Ahupua'a, Waimea District, Kaua'i Island, Hawai'i [TMK (4) 1-3-005:053]*, Scientific Consultant Services Inc.

Pukui, Mary Kawena

1983 *'Ōlelo No'eau: Hawaiian Proverbs and Poetical Sayings*. Bernice P. Bishop Museum Special Publication No.71, Bishop Museum Press, Honolulu.

Pukui, Mary K., Samuel H. Elbert and Esther Mookini

1974 *Place Names of Hawaii*. University of Hawaii Press, Honolulu.

Rice, Philip

1968 The Great Train Robbery. *Garden Island* February 28, 1968.

Sinoto, Akihiko

1978 *Cultural Reconnaissance of Rock Borrow Areas near Kekaha, Kaua'i, Hawai'i*. Department of Anthropology, Bernice P. Bishop Museum, Honolulu.

1993 *Letter, Post-Field Summary of Field Procedures at Kikiola, Waimea, Kauai, to Nancy McMahan SHPD*, Aki Sinoto Publishing, Honolulu, HI.

Sommer, Anthony

2001 "Kauai's Faye family is steeped in sugar: Success sprang from a humble start." Honolulu Star-Bulletin. September 9, 2001. Available at <http://archives.starbulletin.com/2001/09/09/special/generations/story20.html>, accessed on April 10, 2014.

Spear, Robert L.

1992 *Letter Report Concerning Monitoring for the Sunkiss Shrimp Co., Ltd., Kekaha, Waimea Kauai (TMK: 1-2-02:22)*. Scientific Consultant Services Inc., Honolulu.

State Historic Preservation Division (SHPD)

2014 *National Historic Preservation Act (NHPA) Section 106 Consultation –U.S. Army Corps of Engineer's Request for Consultation Kikiaola Small Boat Harbor – Sand Bypass Project, POH-2010-00244 Mana Ahupua'a, Waimea District, Island of Kaua'i TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050* (dated April 4, 2014; Log No. 2014.00581, 2014.00896, Doc. No. 1404SL04), Kapolei, HI.

Stein, Erika T. and Hallett H. Hammatt

- 2006 *Archaeological Monitoring and Inadvertent Burial Recovery Report for SIHP 50-30-05-3941 at an Approximately 0.23-Acre Parcel within the Kekaha House Lots, Waimea Ahupua'a, District of Waimea, Island of Kaua'i [TMK: (4) 1-3-05:45]*, Cultural Surveys Hawai'i, Kailua, HI

Thrum, Thomas G.

- 1908 "Kekaha - Waimea Ditch." *The Hawaiian Annual* for 1908, Honolulu.

Tulchin, Todd, and Hallett H. Hammatt

- 2003 *Archaeological Inventory Survey In Support Of The Proposed Sandwich Isles Fiber Optic Cable Landing At 'Akialoa Road, Kekaha, Waimea Ahupua'a, Kona District, Island Of Kaua'i (TMK 1-3-001:999)*. Cultural Surveys Hawai'i, Kailua, Hawai'i.

University of Hawai'i SOEST

- 1950 UH SOEST Orthoimagery, Waimea to Kekaha Coast Aerial Photo. University of Hawai'i at Mānoa School of Ocean and Earth Science and Technology—Coastal Geology Group. Available at <http://www.soest.hawaii.edu/coasts/erosion/mosaics.php?sArea=waimea>.
- 1975 UH SOEST Orthoimagery, Waimea to Kekaha Coast Aerial Photo. University of Hawai'i at Mānoa School of Ocean and Earth Science and Technology—Coastal Geology Group. Available at <http://www.soest.hawaii.edu/coasts/erosion/mosaics.php?sArea=waimea>.

U.S. Department of Agriculture

- 2001 Soil Survey Geographic (SSURGO) database. U.S. Department of Agriculture, Natural Resources Conservation Service. Fort Worth, Texas. <http://www.ncgc.nrcs.usda.gov/products/datasets/ssurgo/> (accessed March 2005).

U.S. Geological Survey

- 1910 Mana USGS Survey 7.5-Minute Series Topographic Quadrangle. Available at USGS Information Services, Box 25286, Denver, Colorado.
- 1963 Kekaha USGS Survey 7.5-Minute Series Topographic Quadrangle. Available at USGS Information Services, Box 25286, Denver, Colorado.
- 1991 Kekaha USGS Survey 7.5-Minute Series Topographic Quadrangle. Available at USGS Information Services, Box 25286, Denver, Colorado.

Viguie, Scott C. and James Powell

- 2009 *An Archaeological Monitoring Report for Sandwich Isles Communications, Inc. at the Department of Hawaiian Home Lands Kekaha Residences Waimea Ahuapua'a, Kona District, Island of Kaua'i TMK (4) 1-2-002:032 and TMK: (4) 1-2-002:038*, Scientific Consultant Services Inc.

Von Holt, Ida Elizabeth Knudsen

- 1985 *Stories of Long Ago Niihau, Kauai, Oahu*. Daughters of Hawaii, Honolulu.

Waihona 'Aina

- 2000 *The Māhele Database*. Electronic document, <http://waihona.com> (accessed 30 December 2013).

Wenkam, Robert

1977 *Kauai: Hawaii's Garden Island*. Rand MacNally, New York.

Wichman, Frederick B.

2003 *Nā Pua Ali'i O Kaua'i. Ruling Chiefs of Kaua'i*. University of Hawai'i Press, Honolulu.

Whitman, Kathryn, Hammatt, Hallett H. and David W. Shideler

2008 *Archaeological Assessment for Kekaha Elementary School Waimea Ahupua'a, Waimea District, Island of Kaua'i Hawai'i Inter-Island DOE Cesspool Project TMK: (4) 1-3-002: 001 and 057*, Cultural Surveys Hawai'i, Kailua, HI.



Wilcox, Carol

1996 *Sugar Water: Hawai'i's Plantation Ditches*. University of Hawai'i Press, Honolulu.

Wilkinson and Hammatt

2010 *Archaeological Monitoring Report For Kekaha Elementary School, Hawai'i Inter-Island DOE Cesspool Project Waimea Ahupua'a, Waimea District, Island of Kaua'i TMK: [4] 1-3-002: 001 and 057* Cultural Surveys Hawai'i, Kailua, HI.

Appendix A SHPD Correspondence

<p>NEIL ABERCROMBIE GOVERNOR OF HAWAII</p>		<p>WILLIAM J. AILA, JR. CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSIONER OF WATER RESOURCES MANAGEMENT</p>
	<p>HISTORIC PRESERVATION DIVISION DEPARTMENT OF LAND AND NATURAL RESOURCES</p>	<p>JESSE K. SOUKI FIRST DEPUTY</p>
	<p>601 Kamokila Boulevard, Suite 555 Kapolei, HI 96806</p>	<p>WILLIAM M. TAM DEPUTY DIRECTOR - WATER</p>
		<p>AQUATIC RESOURCES BOATING AND OCEAN RECREATION BUREAU OF CONVEYANCES COMMISSIONER OF WATER RESOURCES MANAGEMENT COORDINATOR OF COASTAL ZONES CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING FORESTRY AND WILDLIFE HISTORIC PRESERVATION KAROLANNE ISLAND RESERVE COMMISSIONER LAND STATE PARKS</p>

April 4, 2014

George P. Young, P.E.
Chief, Regulatory Office
Department of the Army
U.S. Army Corps of Engineers, Honolulu District
Fort Shafter, Hawai'i 96858

LOG NO: 2014.00581,
2014.00896
DOC NO: 1404SL04
Archacology

Dear Mr. Young:

**SUBJECT: National Historic Preservation Act (NHPA) Section 106 Consultation –
U.S. Army Corps of Engineer's Request for Consultation
Kikiaola Small Boat Harbor – Sand Bypass Project, POH-2010-00244
Mana Ahupua'a, Waimea District, Island of Kaua'i
TMK: (4) 1-2-006:003, 017, 1-2-013:001, 031-034, 039-041, 1-3-005:050**

Thank you for the opportunity to provide comments regarding the revisions to the application submitted to the U.S. Army Corps of Engineers (Corps) by the State of Hawaii, Department of Land and Natural Resources (DLNR), Engineering Division, Division of Boating and Ocean Recreation (DOBOR) for the Kikiaola Small Boat Harbor – Sand Bypass Project (POH-2010-00244). We received the revised plans via email on March 27, 2014 (Eric T. Yuasa (DOBOR) to Jesse K. Paahana (Corps). The revisions consist of proposed mitigation measures to address concerns raised by SHPD regarding potential adverse impacts to historic properties. Based on these measures, the Corps affirmed their previous determination that "the proposed action will have no adverse effect on historic or cultural resources" (March 28, 2014; email from Jesse K. Paahana (Corps) to Susan A. Lebo (SHPD). An on-site meeting was held on April 1, 2014, which included representatives from The H.E. Johnson Company (contractor), Bow Construction Management, DOBOR (from both Kaua'i and O'ahu), and Cultural Surveys Hawai'i, Inc. (archaeological firm). Subsequent to the site visit, SHPD was provided additional information regarding proposed mitigation measures and some revised scope of work provisions (April 4, 2014; email from Eric Y. Yuasa (DOBOR) to Susan A. Lebo (SHPD)).

Based on the above, SHPD concurs with the Corps' determination that no historic properties will be adversely affected with agreed-upon mitigation measures. The mitigation proposed by DOBOR to mitigate potential adverse impacts to historic properties include but are not limited to:

Access Routes

- (1) The Contractor shall only utilize truck haul routes along existing paved and/or unpaved roads on State property (see plans Sheet C-2); the direct truck haul route through TMK: (4) 1-2-006:003 has been deleted.
- (2) A water truck will be used for dust control, and the hauling equipment will be three Komatsu HM-3002y articulated dump trucks with a capacity of 32 cubic yards per truck.

Mr. Young
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 Page 2

- (3) A temporary bridge crossing will be established on the *makai* (South) side of the existing irrigation ditch bridge crossing (see plans Sheet C-2A); the ends of the two existing drain pipes are plugged and under approximately 6" of sand. The contractor will install two 18-inch corrugated metal or plastic pipe under the temporary bridge crossing. The temporary bridge crossing will consist of about 4 feet of compacted structural fill.
- (4) The Contractor shall notify the Archaeological monitor if they intend to utilize other areas for their truck haul routes.

Borrow Site

- (5) The upper or *mauka* boundary of the borrow site shall be determined at the site visit with DLNR OCCL personnel, Contractor and the Archaeological monitor to ensure that the excavation is limited to sand and sediment that has built up since the harbor was constructed in the late 1950s.
- (6) Temporary barriers or markers will be installed along the *mauka* boundary.
- (7) All equipment operators will be notified that no equipment or vehicles are allowed *mauka* of the temporary barrier or markers, and the barrier or markers shall be maintained in good condition by the Contractor for the duration of the project, unless deemed unnecessary by the Archaeological monitor.
- (8) All excavation will occur within the designated borrow area in accordance with the following methodology: (1) five test pits will be dug with an excavator to verify subsurface sand quality; (2) a D-6 dozer will scrape and push sand into a pile(s). excavation of sand in the borrow areas will be done in thin sections, not to exceed 1 feet in depth; (3) the Contractor will remove and dispose of all unusable materials from the excavated materials; and (4) clean sand from the pile will be loaded into dump trucks using a front loader.

Sand Placement Site

- (9) The Contractor shall install a temporary barrier or markers along the top of the existing slope or scarp, and will notify all equipment operators that no equipment or vehicles are allowed *mauka* of the temporary barrier or markers. The temporary barrier or markers shall be maintained in good condition by the Contractor for the duration of the project, unless deemed unnecessary by the Archaeological monitor.
- (10) The Contractor shall dump sand fill *makai* of the top of the existing slope or scarp and not directly against slope or scarp; the proposed Phase I Berm which was to be constructed above the MHH Water Line has been deleted.
- (11) The Contractor shall take all necessary precautions to protect the existing slope or scarp from damage during the sand fill placement.
- (12) The contractor will start the sand placement immediately to the West of the West Breakwater and will continue dumping and leveling sand along the entire length of the Sand Fill Deposit Site as shown on the plans. The sand will be spread by a bulldozer, and once the beach has been built up near the West Breakwater, and compacted sufficiently to allow for the safe operation of heavy equipment, the dump trucks will drive on the sand fill and dump more sand on or near the Western side of the sand fill. This process will continue along the entire sand fill placement site until the sand is placed along the beach near Mamo Road. Once final grades have been established, the Contractor will grade the sand to a smooth condition with the D-6 bulldozer or Cat 140 motor grader; the proposed Fill Site Phase II sand deposit at the end of Mamo Road has been deleted.

General

- (13) The Contractor work, storage, and field site will be located adjacent to the highway and access will only occur from the highway along an existing unpaved road.

Mr. Young
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- (14) All personnel associated with the onsite construction, supervision and/or inspection of the excavation and placement of sand will be required to attend an onsite meeting conducted by the Archaeological monitor.
- (15) The Contractor shall not store their equipment on the borrow site overnight, State holidays and weekends.
- (16) The Contractor shall immediately stop work and notify the Archaeological monitor, SHPD, Construction Manager and DOBOR Engineer if any historic properties (e.g., cultural deposit, human remains, artifact) are found during exaction or is exposed at the placement site. All work in the vicinity of the find shall stop and the area secured with temporary fencing until it is evaluated by the Archeological monitor and/or SHPD.

In addition, an archaeological monitoring plan will be prepared which includes provisions for on-site monitoring on a weekly basis, subject to a change to spot monitoring with written concurrence from SHPD. Also, SHPD will work with DOBOR and all other consulting parties to conduct site visits, as needed, concerning any agreed-upon mitigation measures.

We look forward to the opportunity to review an archaeological monitoring plan that specifies the agreed-upon protection measures and that meets the requirements of Hawaii Administrative Rules (HAR) §13-279-4 prior to issuance of requisite permits. We also look forward to consulting with you throughout the historic preservation review processes.

Please contact me at (808) 692-8019 or at Susan.A.Lebo@hawaii.gov if you have any questions or concerns regarding this letter.

Aloha,



Susan A. Lebo, PhD
Oahu Lead Archaeologist

cc: Jesse K. Paahana Jesse.K.Paahana@usace.army.mil
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