

APPENDIX A – CULTURAL IMPACT ASSESSMENT (INTERNATIONAL ARCHAEOLOGY, LLC)

– *Final* –

A Cultural Impact Assessment for the
Proposed Kā'anapali Beach Restoration Project,
Hanaka'ō'ō Ahupua'a, Lāhainā District,
Island of Maui, Hawai'i

TMK (2) 4-4-008:001, 002, 003, 004, 005, 019, 022; 4-4-013:001, 002,
006, 007, 008

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INTERNATIONAL ARCHAEOLOGY, LLC

MARCH 2016

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LĀHAINĀ DISTRICT, ISLAND OF MAUI
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I. INTRODUCTION

At the request of Sea Engineering, Inc., International Archaeology, LLC (IA) has completed a cultural impact assessment (CIA) for a portion of Kā'anapali Beach, Hanaka'ō'ō Ahupua'a, Lāhainā District, Island of Maui, TMK (2) 4-4-008:001, 002, 003, 004, 005, 019, 022, and TMK (2) 4-4-013:001, 002, 006, 007, 008 (Fig. 1). The CIA is in support of an Environmental Impact Statement (EIS) for a project to restore a roughly 2,250 meter (m; 7,382 foot [ft]) segment of the dynamic beach to a recent (1980s) historical position.

The scope of work for this CIA includes [1] a review of archaeological and historical records and maps—retrieved from the IA library and other archives on Maui and O'ahu—for the portion of Kā'anapali Beach to be affected by the project; [2] consultation with individuals and organizations from the local community with historical and cultural knowledge of the project area; and [3] a preliminary assessment of potential impacts to archaeological resources, cultural places, and/or ongoing cultural practices within or adjacent to the project area. The CIA includes maps and figures to support these assessments.

PROJECT AREA LOCATION

The project area encompasses an approximately 2,250 m (7,382 ft) segment of the Kā'anapali Beach dynamic shoreline between the prominent geographical feature Pu'u Keka'a (also known as Keka'a Point or Black Rock) to the north (Photo 1), and Hanaka'ō'ō Park to the south (Photo 2). This shoreline segment is known to the local community as “South Beach” (as opposed to “North Beach” north of Pu'u Keka'a). The shoreline portion of the project area is bounded on the west by the Pacific Ocean, and on the east by several large resort/commercial properties.

For construction purposes, the project area is further divided into two smaller shoreline areas—with Hanaka'ō'ō Point roughly marking the separation between the two areas—where beach restoration activities will differ slightly (see Fig. 1). In the Beach Nourishment subarea (Photo 3), extending from Hanaka'ō'ō Point (middle) to Hanaka'ō'ō Park (south end), sand dredged from an offshore area (described below) will be placed directly atop the existing beach face and berm. In the Berm Enhancement subarea (Photo 4), extending from Pu'u Keka'a (north end) to Hanaka'ō'ō Point (middle), the existing berm will be excavated 0.3–0.9 m (1–3 ft) below the present surface, and the recovered sand stockpiled; the trench will then be backfilled using offshore sand, and the stockpiled sand will be spread atop the fill, raising the elevation of the berm 0.3–0.6 m (1–2 ft) above its original grade. Berm excavation will stop at the west edge of the long *naupaka* (*Scaevola* sp.) hedge that runs along the east edge of the Berm Enhancement subarea (Photo 5).

The project area also includes two offshore areas where sand will be dredged from the ocean floor for placement onto the beach (see Fig. 1). The 4.77 hectare (ha; 11.77 acre) Keka'a Point Sand Area is located roughly 20–170 m (65–558 ft) west of Pu'u Keka'a, and the 3.62 ha (8.94 acre) Offshore Sand Area is located approximately 190–280 m (623–919 ft) west of Pu'u Keka'a.

The most appropriate methods for dredging, transporting, stockpiling, and placing the recovered sand, as well as staging the construction equipment and vehicles, will be determined during EIS development. All construction activity associated with the project will be limited to the dynamic, seasonally overturned beach and offshore areas.

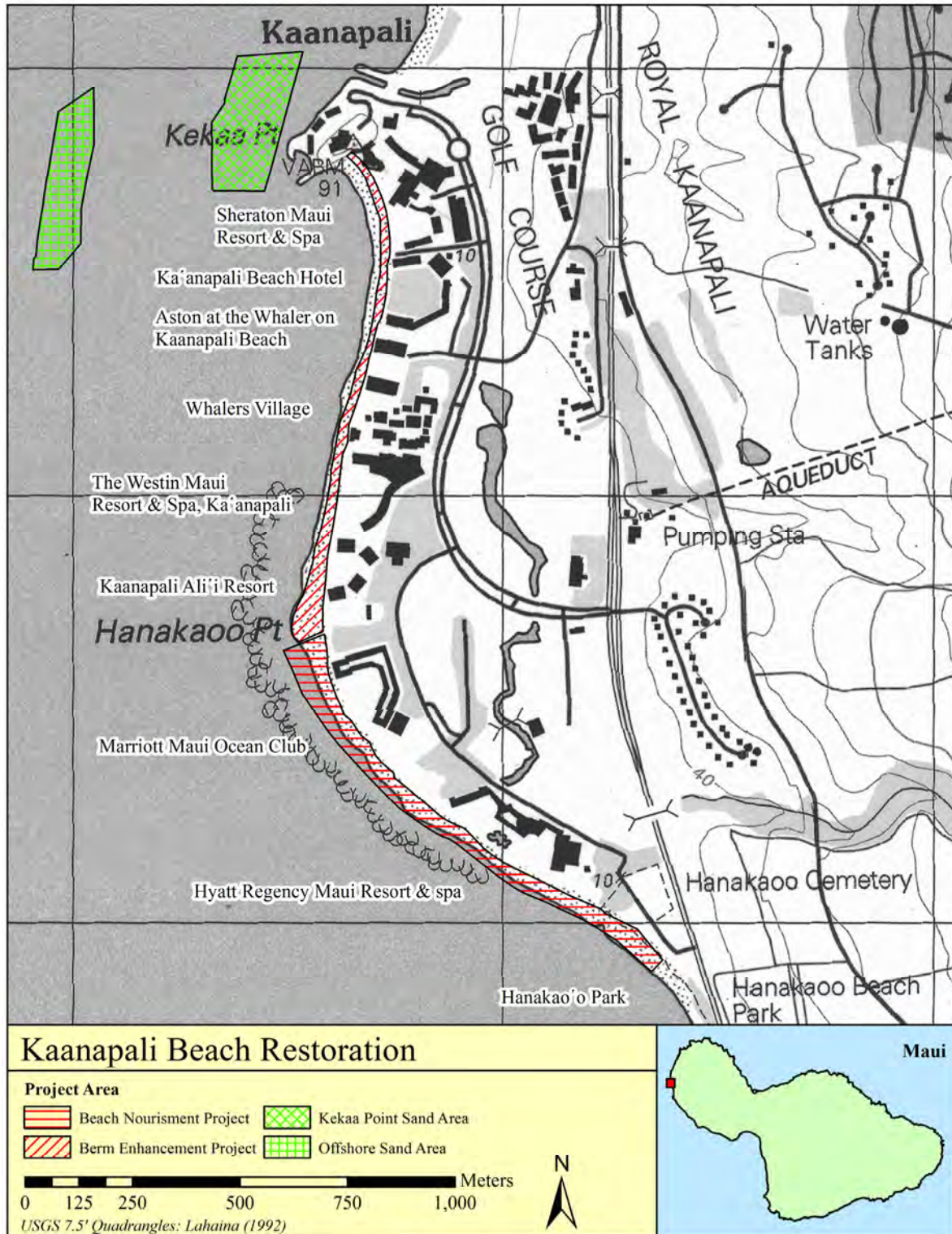


Figure 1. Project area location (TMKs 2-4-4-008 and 2-4-4-013; base map is 1992 USGS Lāhainā, HI topographic quadrangle). The Berm Enhancement Project area (top) will extend to the edge of the current shoreline, which is not accurately reflected on the USGS map.



Photo 1. Pu'u Keka'a. The Sheraton Maui Resort and Spa sits upon and alongside the outcrop; view to the northwest.



Photo 2. A portion of Hanaka'ō'ō Park (foreground and center). The Hyatt Regency Maui Resort & Spa is partially visible in the background; view to the northwest.



Photo 3. A portion of the Beach Nourishment subarea; view to the northwest.



Photo 4. A portion of the Berm Enhancement subarea; view to the north



Photo 5. A *naupaka* hedge on the east side of the Berm Enhancement subarea, near the Sheraton Maui Resort and Spa (background); view to the north.

II. BACKGROUND

This section summarizes environmental, historical, and archaeological data previously recorded for the project area and its surrounding environs. This information has been culled from books and reports retrieved from the IA library, the State Historic Preservation Division (SHPD) Kapolei Library, the SHPD Wailuku Library, the Kā'anapali Operations Association (KOA) library, the Maui Historical Society/Bailey House Museum archives, the County of Maui's Real Property Tax Assessment website (<http://www.mauipropertytax.com/>, retrieved August 4, 2015), and the Office of Environmental Quality Control Environmental Assessment and EIS Online Library (<http://health.hawaii.gov/oeqc/>, retrieved October 13, 2015).

PHYSICAL ENVIRONMENT

The project area is a long, low, S-curving shoreline sand berm marked by the prominent basalt outcrop Pu'u Keka'a (or Keka'a Point) at the north end (see Photo 1). Hanaka'ō'ō Point is in the middle of the project area, and to the south the shoreline curves southeast, ending at Hanaka'ō'ō Park (see Photo 2). As of early November 2015, the sand berm in the north half of the project area (the Berm Enhancement subarea) measured approximately 20 m to 40 m (65 ft to 130 ft) along an east to west axis, considerably wider than the berm in the south half (the Beach Nourishment subarea), which in some areas narrowed to approximately 10 m (30 ft). From Pu'u Keka'a to the north end of Hanaka'ō'ō Park, a hedge of *naupaka* (*Scaevola* spp.)—a thick, indigenous shrub common to Hawaiian shorelines—forms a rough buffer between the dynamic beach to the west and the paved Kā'anapali Beachwalk and resort properties to the east. The hedge is up to 12 m (40 ft) deep in areas north of Hanaka'ō'ō Point (see Photo 5), but becomes narrower and more intermittent further south (Photo 6). The *naupaka* hedge is not present in Hanakao'o Park, the dynamic beach instead gradually transitioning into a grassy, landscaped area as it extends east (Photo 7). At the south end of the project area, the beach is partially covered by basalt boulders (Photo 8).

The project area is located on the leeward coastline of the West Maui Mountains, which were formed by the severe erosion of the shield volcano (West Maui Volcano) that dominates the northwestern quarter of Maui Island (MacDonald et al. 1983). Average rainfall ranges between 420 millimeters (mm) and 450 mm per year (Giambelluca et al. 2013). The project area falls within an alluvial fan created by outflow from Hahakea Stream, Wahikuli Stream, and other smaller drainages descending from the mountains to the east (Lee-Greig and Hammatt 2014). The Hahakea and Wahikuli streams converge and drain into the ocean at a location between the Hyatt Regency Maui Resort & Spa and Hanaka'ō'ō Park, in the south portion of the project area (Photo 9).

Foote et al. (1972) describe the shoreline portion of the project area as a Beach (symbol "BS"), consisting mainly of light-colored sands derived from coral and seashells that are regularly washed and rewashed by ocean waves. The inland areas immediately east of the project area are designated Jaucas Sand with 0 to 15 percent slopes (symbol "JaC"), and are described as excessively drained, calcareous soils that occur as narrow strips on coastal plains adjacent to the ocean.

Pu'u Keka'a is a 26 m (85 ft) high, cinder-and-spatter cone of picrite-basalt (Photo 10) that formed during the Lāhainā Volcanic Series, a relatively late period of volcanic activity in West Maui (MacDonald et al. 1983). The formation likely postdates the +7.6 m (25 ft) Waimanalo high seastand of the last Pleistocene interglacial period, as indicated by the absence of a wave-cut bench at its base

(Stearns and MacDonald 1942). Foote et al. (1972) designate Pu'u Keka'a as Rock Land (symbol "rRK"), a basalt and andesite outcrop with very shallow soils.

Although the Kā'anapali Beach shoreline is typically stable, and subject to mild erosion and moderate accretion that slowly and naturally replenish the beach over time, severe erosional events related to Kona storms and hurricane waves (Hurricane Iniki in 1992 is a notable example) have permanently altered the morphology of the shoreline (Eversole 2002; Sea Engineering 2012; Photo 11). The portion of Kā'anapali Beach within the project area (South Beach) is estimated to have lost $42,999 \pm 730$ cubic meters of sediment between 1949 and 1997 due to periodic severe storms (Eversole 2002), and orthographic photographs of the shoreline from 1949 to 2007 (Figs. 2–5) show that the morphology of Kā'anapali Beach is highly dynamic, but has generally receded over time. Given the extent of changes recorded over only the last 60–70 years, estimates of the historical shoreline position during the pre-Contact and early post-Contact eras would be highly speculative.



Photo 6. A *naupaka* hedge along the east side of the Beach Nourishment area, near the Hyatt Regency Maui Resort & Spa (background); view to the northwest.



Photo 7. A portion of Hanaka‘ō‘ō Park. The dynamic beach (left) transitions to a grassy, landscaped area (right) as it extends inland; view to the northwest.



Photo 8. Basalt boulders on the Hanaka‘ō‘ō Park beach; view to the northwest.



Photo 9. The Hahakea-Wahikuli stream drainage, located between the Hyatt Regency Maui Resort & Spa and Hanaka'ō'ō Park; view to the southwest.



Photo 10. Pu'u Keka'a; view to the west.



Figure 5-4 Beach loss and collapsed sidewalk at Sheraton Maui (March 24, 1998)



Figure 5-5 Beach loss and collapsed sidewalk at Sheraton Maui (March 24, 1998)



Figure 5-9 Kaanapali Beach: May 9, 2008 (left); July 8, 2008 (right) (source: Kaanapali Alii)

Photo 11. Historical photos of the Berm Enhancement subarea showing the previous impacts of severe erosional events on the dynamic beach (Sea Engineering, Inc. 2012:21–22, 27).

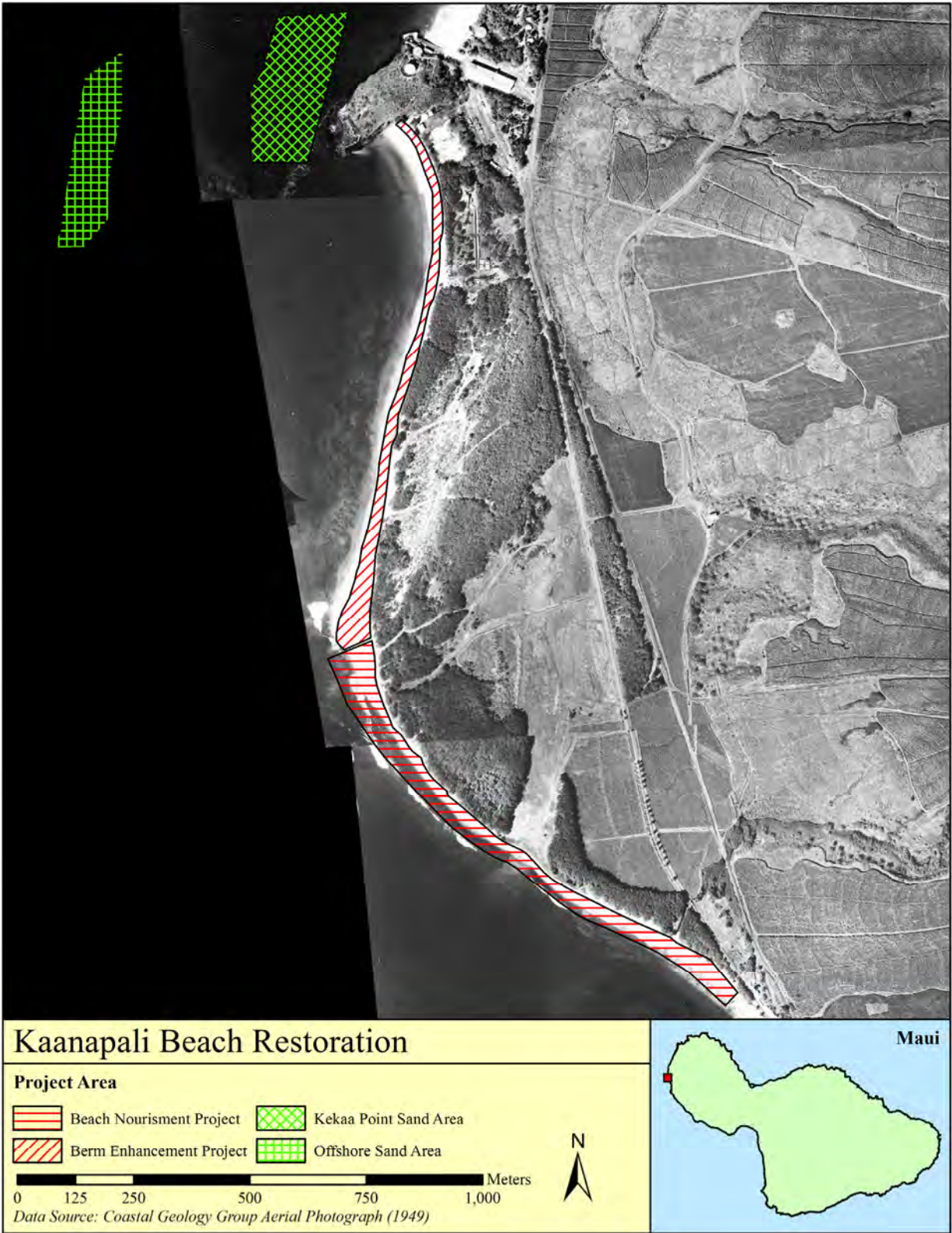


Figure 2. The project area projected onto a 1949 orthographic photograph of the Kā'anapali shoreline.

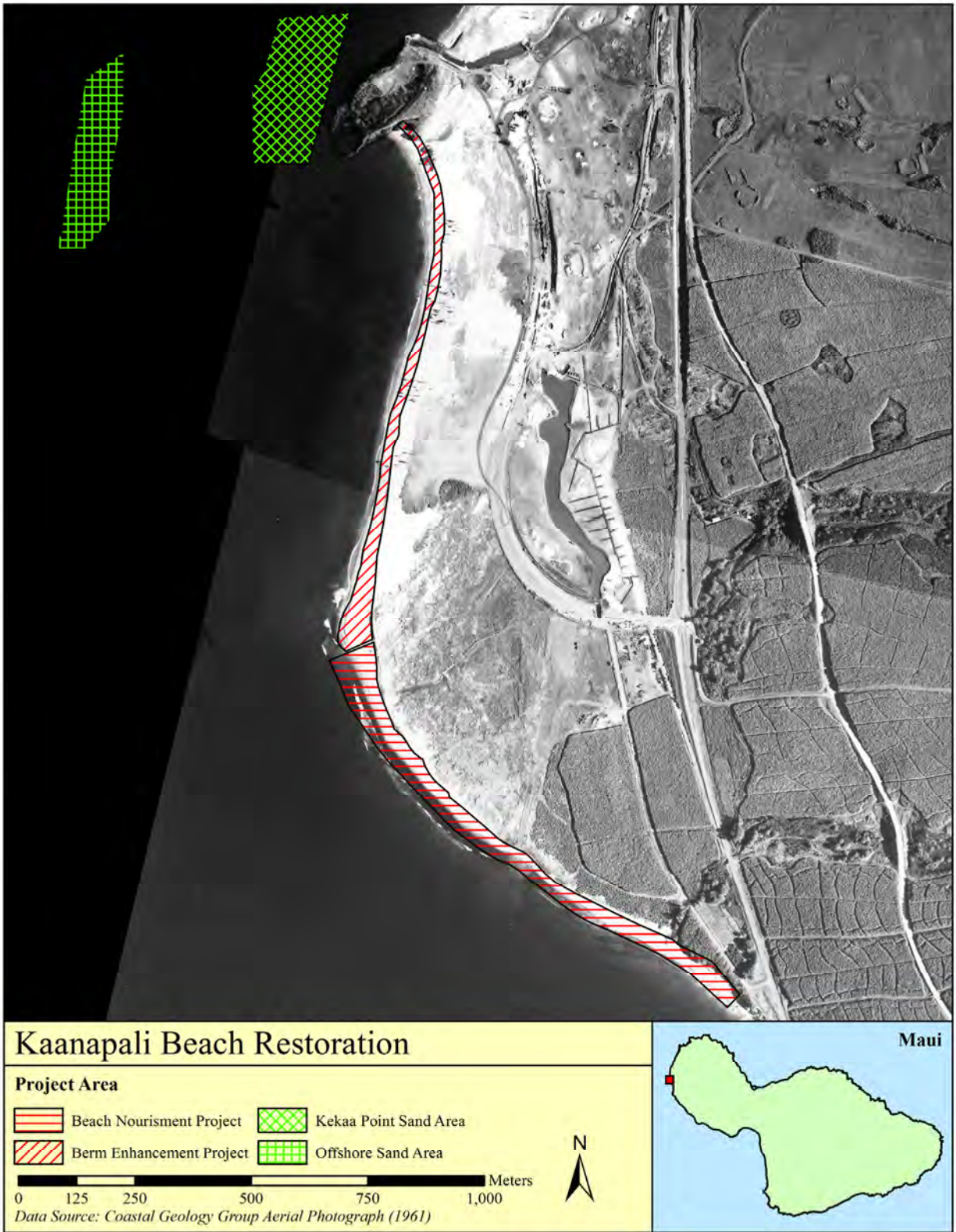


Figure 3. The project area projected onto a 1961 orthographic photograph of the Kā'anapali shoreline. Note that the land adjacent to the dynamic beach was being cleared for resort construction at this time.

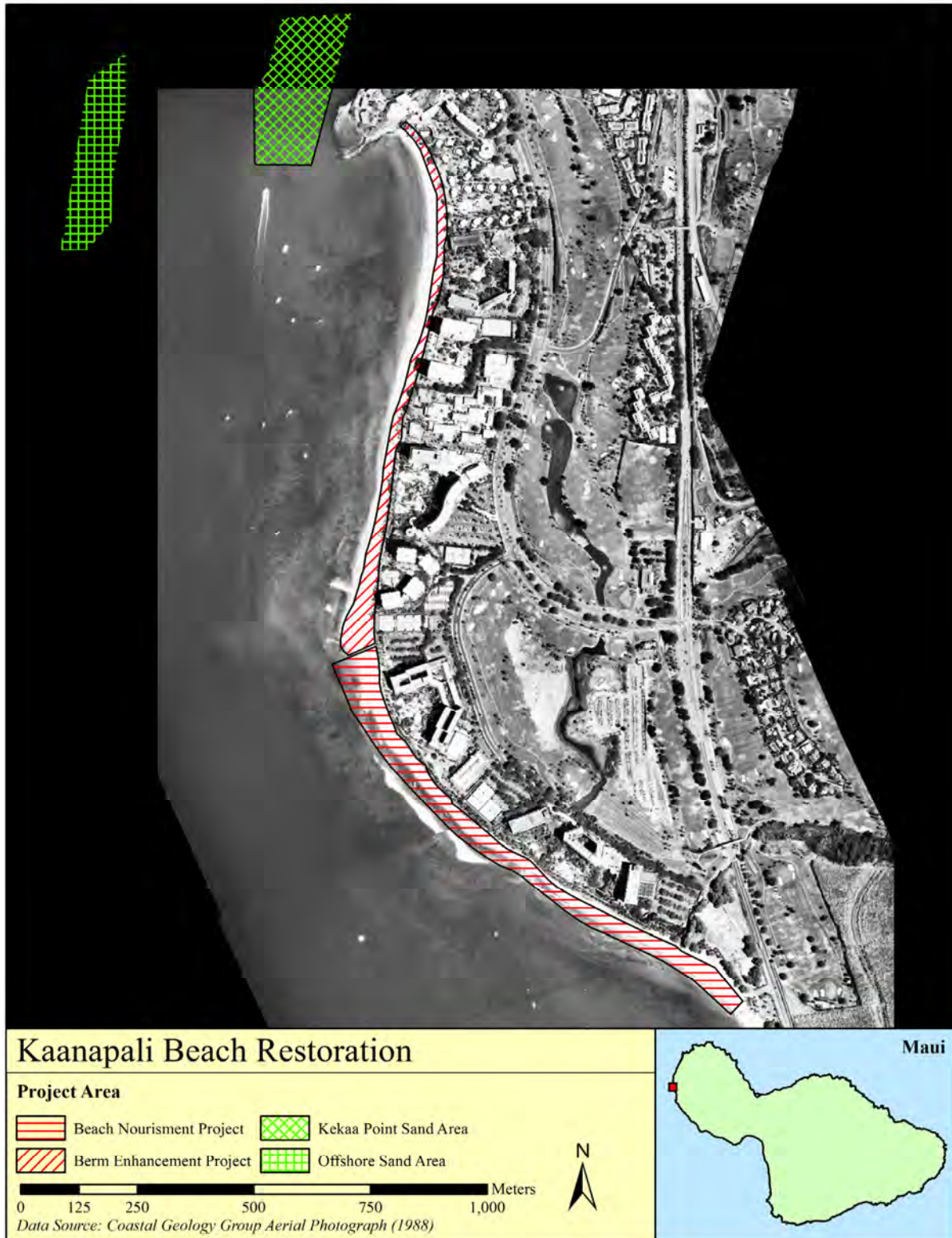


Figure 4. The project area projected onto a 1988 orthographic photograph of the Kā'anapali shoreline. The proposed beach restoration project will restore the dynamic beach to roughly the position visible in the photo.

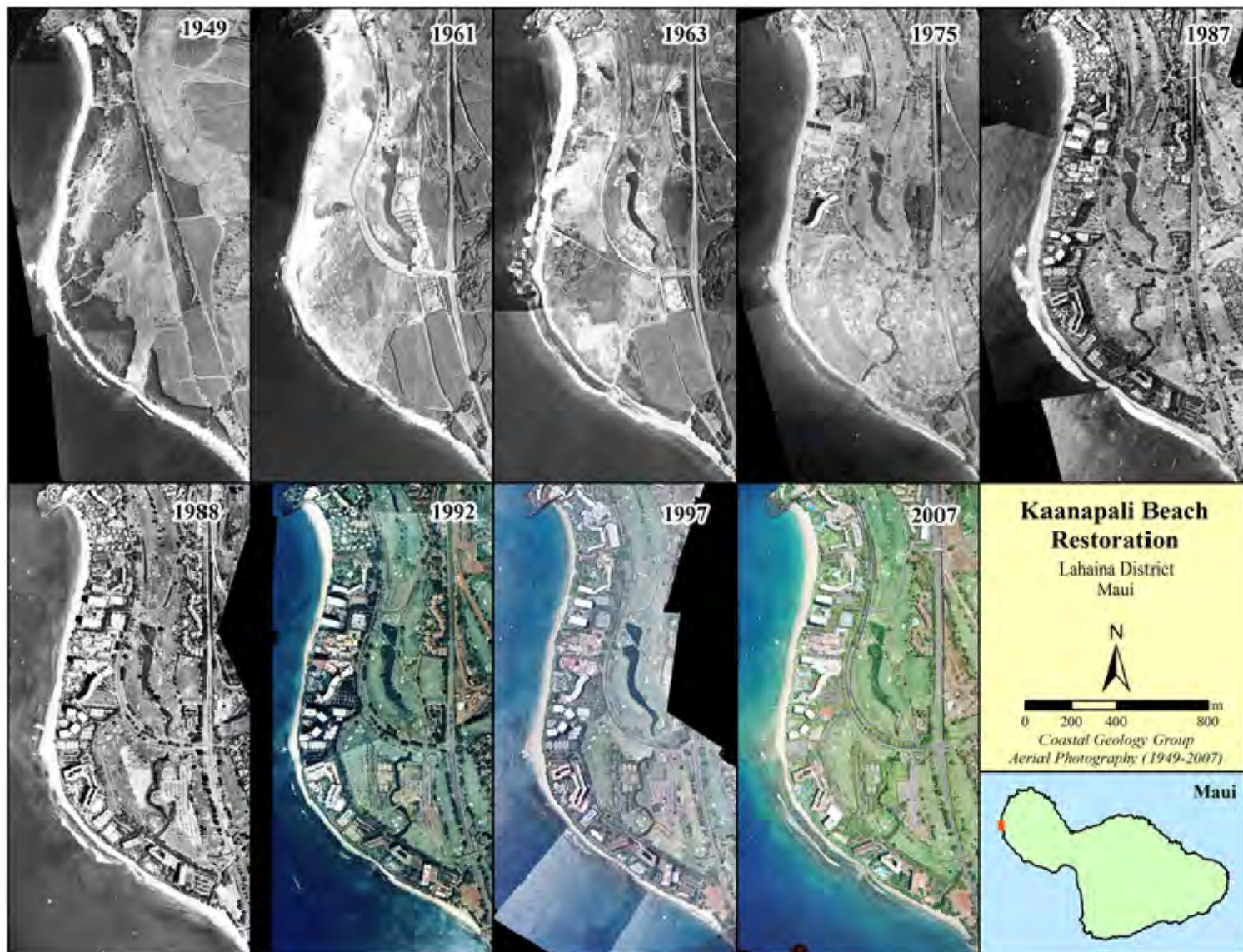


Figure 5. A collection of orthographic photographs of the Kā'anapali shoreline from 1949 to 2007.

PREHISTORY AND HISTORY

The monumental basalt cliff Pu‘u Keka‘a is the only location within the project area that is mentioned in Hawaiian tradition. Pu‘u Keka‘a—roughly translated as “hill of rumbling thunder” (Pukui et al. 1974), and known alternatively as Black Rock since the early post-Contact period—is a famous referent within traditional Hawaiian folklore. The demigod Maui, the protagonist of many Hawaiian legends, reputedly transformed an enemy named Moemoe into a black rock (later called the *Pohaku o Moemoe* [stone of Moemoe]) located near Pu‘u Keka‘a (Forbes 1880; Fornander 1919a; Westervelt 1910). The legendary figure Wahine o Manua (“abused woman” or “fighting woman”) is said to have rested beneath a stone (later called the *Pohaku o Wahine o Manua* [stone of Wahine o Manua]) near Pu‘u Keka‘a while being led away from her abusive husband by a *pūeo* (owl) god (Thrum 1905). The two legendary stones are now preserved on the grounds of the Maui Eldorado Kā‘anapali resort, located approximately 400 m (1,300 ft) northeast of the project area.

Kaka‘alaneo (also known as Ka‘alaneo), a legendary ruling chief of Maui, reputedly established his capital in Kā‘anapali, and lived in a compound on Pu‘u Keka‘a (Beckwith 1970:384; Fornander 1919b:540). During his reign (the precise date range is not known), Kā‘anapali grew heavily populated, and crops such as sweet potatoes, bananas, and sugarcane were intensively cultivated in surrounding areas (Fornander 1919a:540). The son of Kaka‘alaneo, Ka‘ulula‘au, was born on Pu‘u Keka‘a and would later gain legendary fame for clearing the ghosts from Lanai Island (Fornander 1919b:542).

Traditional Hawaiian religion sanctifies Pu‘u Keka‘a as a *leina a ka uhane*, or a leaping place for departed souls, where deceased spirits passed westward—in the direction of the setting sun—into the afterlife (Fornander 1919b); this function has been similarly attributed to westward-facing geographical features on other islands, such as Ka‘ena Point on O‘ahu. This association with death and the afterlife might have attracted the large number of burials and cemeteries on and around Pu‘u Keka‘a that have been noted in archaeological and historical records (Dobyns and Allen-Wheeler 1982; D. Fredericksen 1998; E. Fredericksen 2008; McGerty and Spear 2002a; Neller 1982; Perzinski and Dega 2009; Rotunno-Hazuka and Pantaleo 2003). During the late 19th century, thousands of skeletons were reportedly visible on and around Pu‘u Keka‘a, completely covering the sand (Fornander 1919b:542).

Two historical burials on Pu‘u Keka‘a have been specifically described. The *ali‘i* (chief) Kauhi‘aimokuakama was buried on the cliff following his defeat and death at the Battle of Koko O Nā Moku in 1738, which involved hundreds of warriors and ranged across a large stretch of the west Maui coast (Fornander 1880; Sterling 1998:45). The *hapa haole* (part-white) whaler Keokiko, who worked near Pu‘u Keka‘a extracting oil from whale blubber from about 1849 to 1859, was buried in a white tomb atop the cliff that became a well-known landmark during the late 19th and early 20th centuries (Fornander 1919b:542; United States of America Department of Commerce 1919).

Pu‘u Keka‘a consequently acquired a reputation as a haunted area, where local legends warned that visitors travelling alone would mysteriously die (Fornander 1919b:542). Kahekili—the last ruler of an independent Maui polity before Kamehameha I unified the islands—utilized the spiritual symbolism and fearful reputation of the cliff to powerfully demonstrate his own physical and political potency. By diving off the side of Pu‘u Keka‘a and climbing back to the top unharmed, he proved to the people that he was descended from the gods, and therefore a legitimate *ali‘i nui*, or high chief (Pukui and Elbert 1986). During the early 1800s, when nearby

Lāhainā served as a popular port for whalers, Pu‘u Keka‘a was named Black Rock by Westerners, but even among foreigners it retained its reputation as a haunted place (Ashdown 1963).

During the privatization of land in the Kingdom of Hawai‘i following the Māhele of 1848, only one unawarded *hoa‘āina* (native tenant) claim was made for a parcel in Hanaka‘ō‘ō Ahupua‘a (Helu 7559, near Hahakea Gulch east of the project area), possibly implying that by the mid-19th century the *ahupua‘a* (including land in the vicinity of the project area) was sparsely populated (Lee-Greig and Hammatt 2014). Migration away from Lāhainā and West Maui, spurred by the decline of the whaling industry from the 1860s onward, is noted in census records: the population in the Lāhainā District (which includes the project area) was 4,833 in 1853, but by 1896, it had declined to 2,398 (Schmitt 1977).

In 1863, the Pioneer Mill Company began development of a sugar plantation along the west coast of Maui, which would eventually extend from Olowalu in the south, through Lāhainā (where the sugar mill was located), to Māhinahina north of Kā‘anapali. The Kā‘anapali Landing, built north of Pu‘u Keka‘a (outside the project area), served as the plantation’s main port and storage facility (Photos 12 and 13) until the 1930s. A large workers’ camp was soon established in the Kā‘anapali area (Ashdown n.d.). From the late 19th century to around 1918, a horse racing track known as the Kā‘anapali Race Track (also possibly known as the Koko o Nā Moku Race Track, named after the famous battle) hosted holiday races for plantation employees (Photo 14); the track was likely located approximately 250 m (820 ft) east of the project area, in a location now occupied by the Kā‘anapali Golf Course Resort South (Fig. 6). The Hanaka‘ō‘ō Cemetery (or “Chinese cemetery” [Neller 1982]), a plantation-era burial ground, still exists in an area north of Hanaka‘ō‘ō Park, approximately 30 m (100 ft) northeast of the project area (Photo 15).

A 1918 map of the Pioneer Mill Company lands shows no plantation-related construction within the project area (see Fig. 6). However, an undated historical photograph (Fig. 7) shows a “Supervisor’s Beach House” (likely referring to a plantation supervisor) and an adjacent agricultural field or garden at the base of Pu‘u Keka‘a, where the Sheraton Maui Resort and Spa is located today. A second, undated photograph of Kā‘anapali Beach taken from the summit of Pu‘u Keka‘a (Fig. 8) shows a cleared area between the inland *kiawe* (*Prosopis pallida*) forest and the dynamic beach that contains approximately 40 small rectangular objects protruding from the ground surface; this area could be a “Japanese cemetery” that was removed before Sheraton Maui Resort and Spa was built in the early 1960s (D. Fredericksen 1998:5). A 1949 orthographic photograph of Kā‘anapali Beach (Photo 16) shows a cluster of plantation-related industrial structures—including circular storage tanks, railway tracks, warehouses, and a lumberyard—surrounding Pu‘u Keka‘a; this industrial area extends approximately 250 m (820 ft) south of the cliff into the static lands east of the current project area, where the Sheraton Maui Resort and Spa and the Kā‘anapali Beach Hotel now stand.

Following Hawai‘i statehood in 1959, unproductive plantation lands along the Kā‘anapali coast were cleared (Photo 17) and repurposed as a vacation destination, with the first major hotel on Kā‘anapali Beach—the Sheraton Maui Hotel (now the Sheraton Maui Resort & Spa)—opening in 1963 on Pu‘u Keka‘a. Over the next 20 years, at least 12 additional resorts and shopping complexes were constructed immediately inland of the project area (Photo 18).

South Beach is now largely dedicated to tourism-related recreational activities, including sunbathing, snorkeling, and beach volleyball (Photo 19). Some of the most popular water sports among visitors, such as surfing and paddleboarding, originated in Polynesian—and particularly Hawaiian—traditional culture. The local community continues to utilize Kā‘anapali Beach for

fishing and outrigger canoeing (Photos 20 and 21), cultural practices that are deeply rooted in the history of the area.



Photo 12. Kā'anapali Landing and Pu'u Keka'a (to the right), circa 1930 (Iaukea 2014:33). Sugarcane fields occupy most of the visible inland areas, with the exception of *kiawe* forests adjacent to the active beach; view to the southeast.



Photo 13. Kā'anapali Landing in 2015; view to the west.



Photo 14. A Hawaiian horse race, circa 1900. The location is likely the Kā'anapali Race Track. (Photograph retrieved from an information stand on the Kā'anapali Historic Trail.)



Figure 6. A portion of a 1918 field map of the Pioneer Mill Co. (Condé and Best 1973:255), depicting the plantation fields and facilities. No plantation fields or structures are mapped within the beach restoration project area, outlined in red. The large oval-shaped feature east of the project area may be the Kā'anapali Race Track.



Photo 15. A 2015 panoramic photograph of the Hanaka'ō'ō Cemetery; view to the northwest.



Figure 7. An undated photograph of a "Supervisor's Beach House" and a possible cultivated field or garden (right, circled in red) near Pu'u Keka'a (left) (courtesy of Maui Historical Society, Photo 8-1-16-4). The Sheraton Maui Resort and Spa occupies this area today; view to the east.

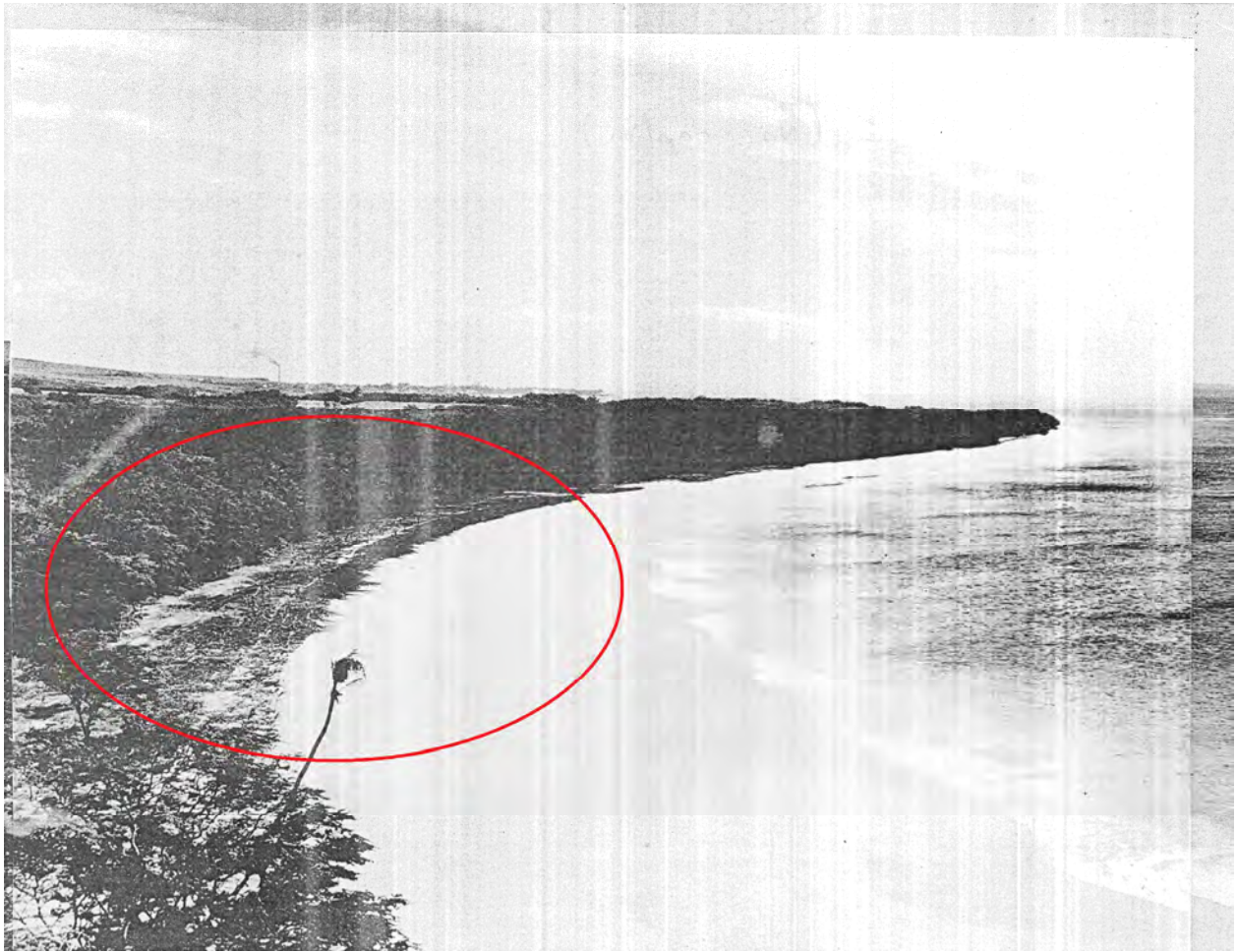


Figure 8. An undated photograph of Kā'anapali Beach, taken from the summit of Pu'u Keka'a (courtesy of Maui Historical Society, Photo 8-1-16-3). Hanaka'ō'ō Point is visible at the right center of the photo. A possible "Japanese cemetery" (circled in red), is located in an area adjacent to the modern Kā'anapali Beach Hotel; view to the south.



Photo 16. Portion of a 1949 orthographic photograph of Kā'anapali Beach. A cluster of Pioneer Mill Company industrial facilities, including the Kā'anapali Landing (top center), surrounds Pu'u Keka'a (top left) (Hawaii Coastal Erosion Website <ftp://soest.hawaii.edu/coastal/webftp/Maui/Mosaics/Kaanapali49mos.jpg>, retrieved December 11, 2015).



Photo 17. A 1960 photograph of Kā'anapali Beach, taken from the summit of Pu'u Keka'a (Iaukea 2014:34). Hanaka'ō'ō Point is visible at the top. Note that vegetation and other shoreline features have been removed to prepare for resort construction; view to the south.



Photo 18. A 2015 photograph of Kā'anapali Beach, taken from the Sheraton Maui Resort and Spa on the summit of Pu'u Keka'a. Hanaka'ō'ō Point is visible at the top center of the photo; view to the south.



Photo 19. Sunbathers and snorkelers near Pu‘u Keka‘a; view to the west.



Photo 20. Local fishers at Hanaka‘ō‘ō Park; view to the southwest.



Photo 21. Outrigger canoes at Hanaka‘ō‘ō Park; view to the northwest.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The Kā'anapali area has been extensively surveyed, primarily in connection with commercial development in the vicinity; Lee-Greig and Hammatt (2014) summarize previous archaeological investigations near the project area. Table 1 is based on this source, with additional reports appended to the original list. Figure 9 shows the locations of the previous studies. Figure 10 shows the general locations of in situ human burials identified by the studies; the locations of isolated human skeletal remains are not displayed. Figure 11 is a sketch map of Hahakea Beach Park—now Hanaka'ō'ō Park—from Neller (1982), showing the locations of archaeological surface features near the park shoreline where beach restoration activities are planned.

A single archaeological site—the Hanaka'ō'ō grinding stones (SIHP 50-50-03-1204)—has been identified within the project Beach Nourishment subarea (Photos 22 and 23). The site contains eight smooth, shallow, and roughly circular depressions distributed across the superior surfaces of two basalt boulders. These *hoana*, or grindstones, were used to shape and sharpen traditional Hawaiian adzes; the depressions were formed by the grinding action (facilitated by sand and water) of innumerable stone tools upon the boulder surfaces. The site is located among a cluster of basalt boulders on the Hanaka'ō'ō Park beach, approximately 10 m (33 ft) west of the park bathrooms.

The general dearth of archaeological features within the project area is plausible for several reasons: the Kā'anapali shoreline is seasonally overturned by wave and tidal action; the beach has been subject to severe erosional events related to Kona storms and hurricane waves for at least the last 60 years (Eversole 2002); it has also been highly trafficked by visitors since the adjacent vacation resorts were built on land to the east of the beach in the 1960s. Given these conditions, virtually all prehistoric or historic resources formerly located on the beach would almost certainly have been destroyed long ago. The offshore sand areas—ignoring the obvious logistical difficulty involved in surveying the underwater landscape—are highly unlikely to have ever contained in situ cultural resources, and would additionally be subject to the same volatile environmental forces as the beach itself.

Surface and subsurface archaeological resources have, however, been periodically identified within the static areas inland of the dynamic beach. Cultural deposits in these areas are typically found below the modern fills associated with resort construction, in buried Jaucas sand lenses that represent the truncated and buried prehistoric-historic landscape. In situ human burials and isolated human skeletal elements dating from the pre-Contact and early post-Contact eras are the predominant archaeological resource identified in previous investigations; grave goods, such as *lei niho palaoa* (ivory pendant), have been found associated with burials (Perzinski and Dega 2009) both in situ and displaced. Two factors contribute to the preponderance of burials along the Kā'anapali shoreline: sand dunes were commonly used as burial grounds during the pre-Contact and early post-Contact periods; and perhaps more crucially, the dominant landscape feature, Pu'u Keka'a, is regarded in traditional Hawaiian culture as a *leina a ka uhane*, or a leaping off place for souls, where the spirit of a deceased person follows the setting sun into the afterlife.

Table 1. Previous Archaeology in the Vicinity of the Project Area.

Author/Date	Level of Work	Results	Location
Hammatt 1978 (Ching 1979)	Archaeological assessment: one backhoe test trench; examination of an existing sewer line trench	Original surface morphology was deemed excessively altered. No cultural remains or deposits were identified.	Hyatt Regency Maui Resort & Spa (Marriott's Maui Ocean Club)
Keau 1981	Archaeological reconnaissance	No new pre-Contact cultural remains were found, but a possible post-Contact habitation site and associated artifacts were noted. Cultural items previously identified in the area are described, including the grinding stones site (SIHP -1204). Further subsurface testing is recommended.	Hanaka'ō'ō (Hahakea Beach) Park
Dobyns and Allen-Wheeler 1982	Archaeological monitoring	Two in situ burials, fragmentary skeletal elements, and basalt flakes were found during construction excavation.	Kā'anapali Alii Resort
Neller 1982	Archaeological reconnaissance	The Hanaka'ō'ō grinding stones (SIHP -1204), the Hanaka'ō'ō Cemetery (or Chinese cemetery), and the rock crusher ruins were the only cultural properties identified in the survey area. Monitoring of construction activities near the properties is recommended.	Hanaka'ō'ō (Hahakea Beach) Park
Rosendahl 1986	Archaeological reconnaissance	Most of the project area had been previously developed, except for portions of the barren coastal flats and the exposed faces of Pu'u Keka'a. No cultural remains or deposits were identified.	Sheraton Maui Resort & Spa
Graves 1993	Archaeological assessment: fifteen backhoe test trenches were excavated on the beach; no testing on Pu'u Keka'a	No cultural remains or deposits were identified.	Sheraton Maui Resort & Spa
D. Fredericksen 1998	Archaeological monitoring	Eight partial or complete in situ burials, nine random finds of human skeletal elements, and other cultural items were found during construction excavation. Most of the finds were associated with two historic cemeteries on Pu'u Keka'a, which were largely removed during construction of the original hotel in the 1960s.	Sheraton Maui Resort & Spa
McGerty and Spear 2002a	Archaeological assessment: four backhoe test trenches.	No cultural remains or deposits were identified. A recently reported burial (SIHP -4985) within the same project area is noted.	Marriott's Maui Ocean Club

Table 1. Previous Archaeology in the Vicinity of the Project Area (continued).

Author/Date	Level of Work	Results	Location
Rotunno-Hazuka and Pantaleo 2003	Archaeological monitoring	Human skeletal remains were inadvertently encountered during unmonitored construction activity. Additional skeletal elements from a single individual were later recovered from a disturbed context.	Marriott's Maui Ocean Club
Paraso and Dega 2006	Archaeological assessment: eleven backhoe test trenches	No cultural remains or deposits were identified within the project area. Several possible cultural strata were identified by color outside of the study area. A burial site (SIHP -4985) located at the Marriott's Maui Ocean Club is noted.	Hyatt Regency Maui Resort & Spa
Cordle and Dega 2007	Archaeological monitoring	No cultural remains or deposits were identified.	Marriott's Maui Ocean Club
E. Fredericksen 2008	Archaeological mitigation of a burial site (SIHP - 6576)	Human skeletal elements were inadvertently encountered during unmonitored construction activity. The remains were likely from an in situ burial displaced by construction excavation.	Hanaka 'ō'ō (Hahakea Beach) Park
Perzinski and Dega 2009	Archaeological monitoring	Seven in situ burials and over 2,700 isolated skeletal elements (SIHP -6279 and SIHP -6586) were found during construction excavation.	Marriott's Maui Ocean Club
Dagher and Dega 2014	Archaeological assessment	No cultural remains or deposits were identified.	Ka'anapali Beach Hotel
Lee-Greig and Hammatt 2014	Archaeological assessment: eighteen backhoe test trenches were excavated in locations likely to contain traditional Hawaiian cultural deposits, as determined by a Ground Penetrating Radar (GPR) survey	No cultural remains or deposits were identified.	The Westin Maui Resort & Spa, Ka'anapali

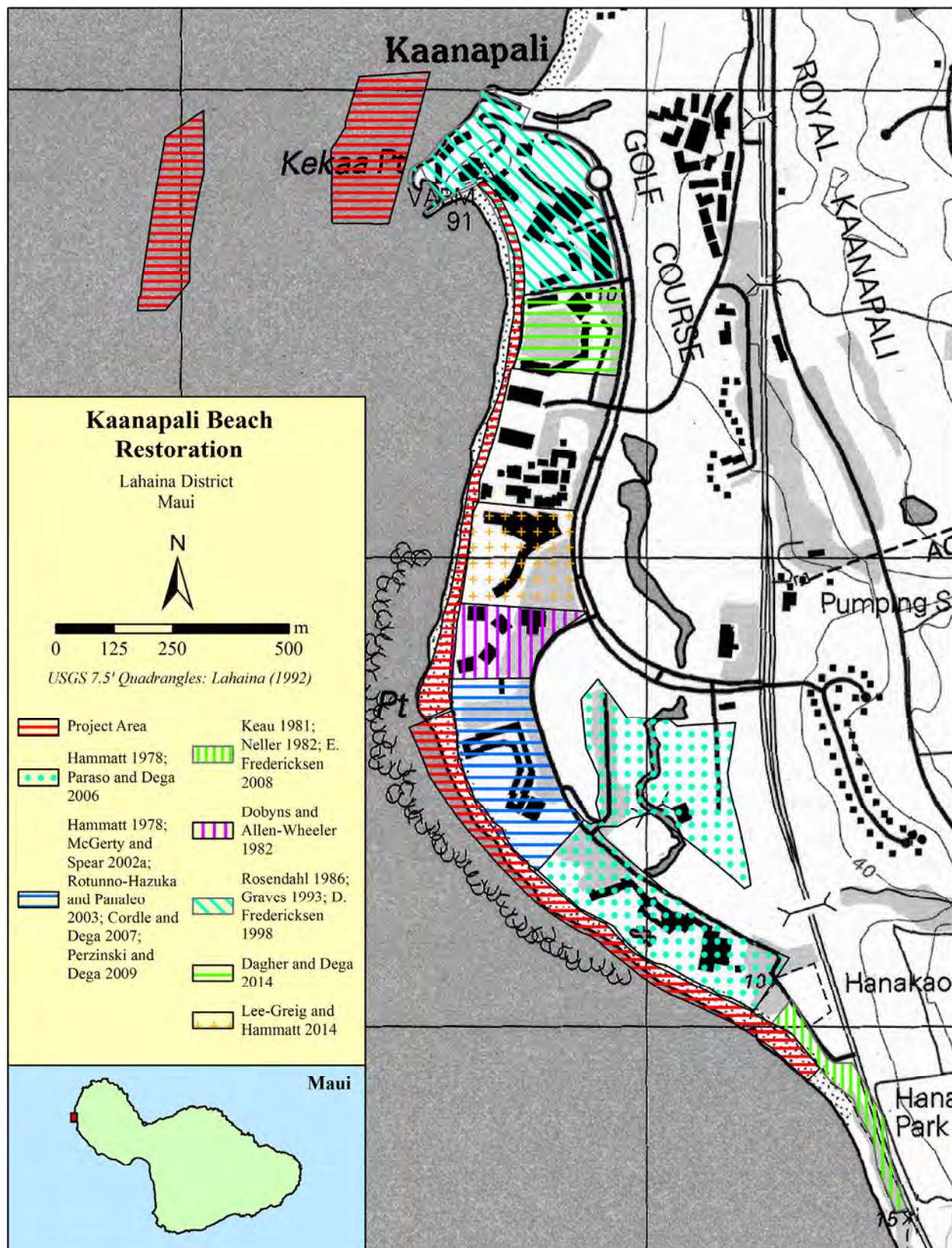


Figure 9. Locations of previous archaeological studies in the vicinity of the project area.

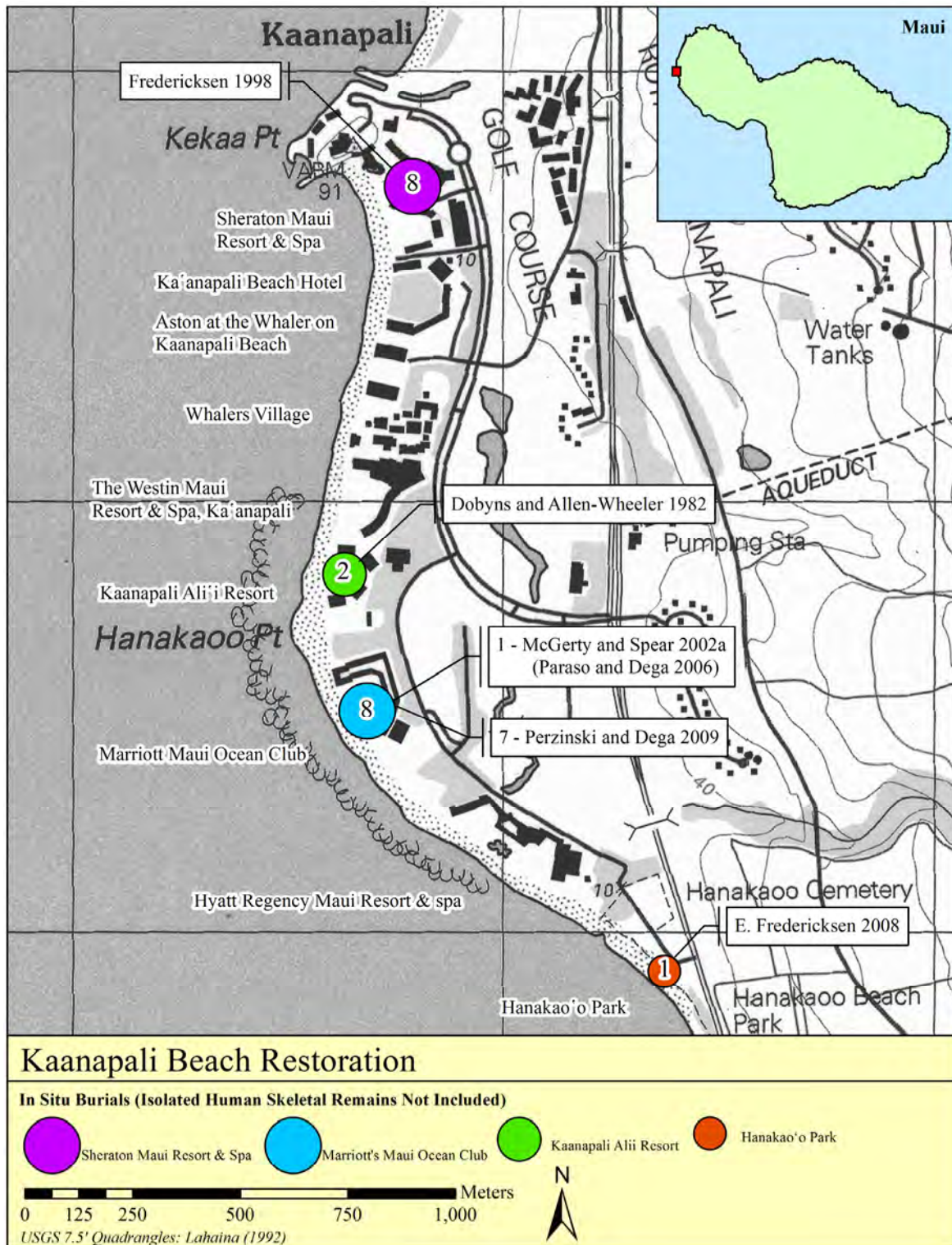
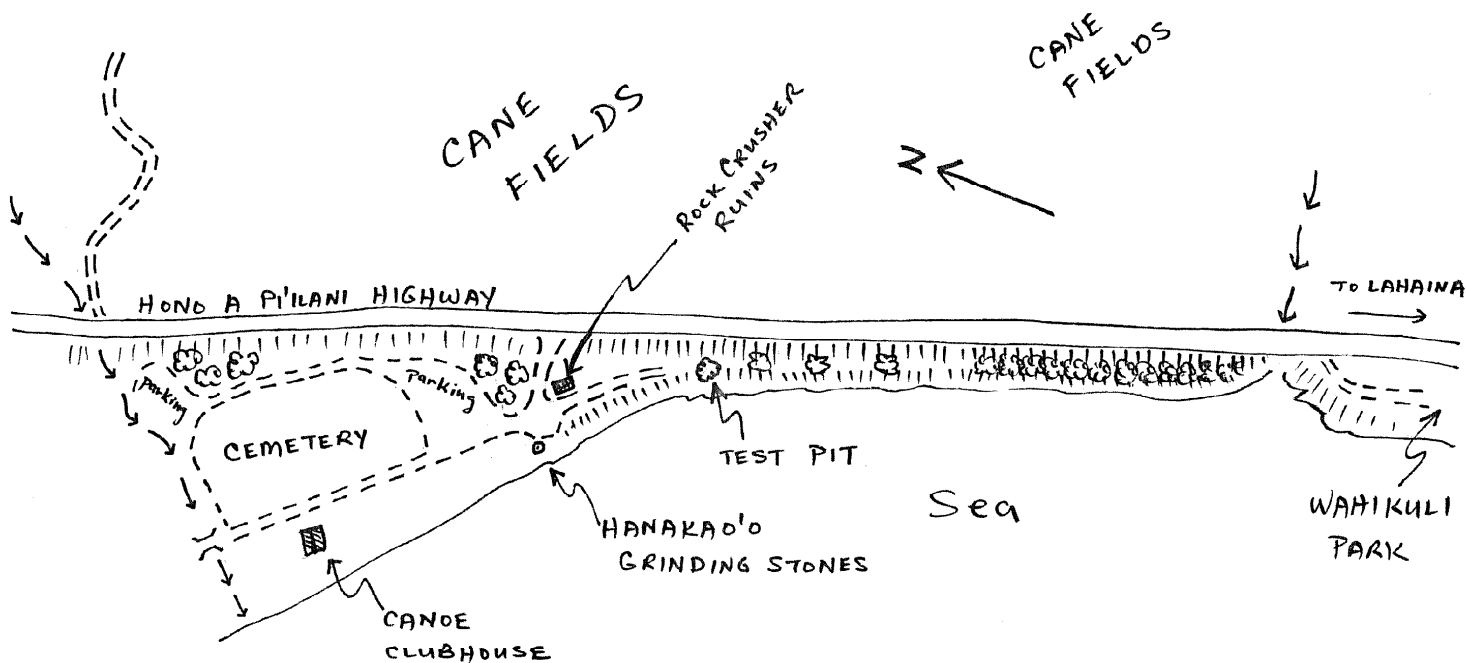


Figure 10. The general locations of in situ human burials identified near the project area, according to previous archaeological studies. Isolated human skeletal elements are not depicted in the figure. Each colored circle schematically represents the quantity of in situ burials found in an area; the exact total is indicated by the number superimposed on the circle.



HAHAKEA BEACH PARK

SKETCH MAP (NOT TO SCALE)

22 MARCH 1982

E. NELLER

Figure 11. A sketch map of Hahakea Beach Park—now Hanaka‘ō‘ō Park—from Neller (1982), showing the locations of surface archaeological features near the park shoreline.



Photo 22. The Hanaka‘ō‘ō grinding stones site (SIHP 50-50-03-1204) in Hanaka‘ō‘ō Park; view to the southwest.



Photo 23. The grinding stones site (foreground), and a portion of the Beach Nourishment subarea (background); view to the northwest.

III. CONSULTATION

IA contacted individuals and organizations with strong cultural ties to the Kā'anapali community (Table 2), in order to consult with them regarding any potential impacts that planned construction activities would have on historic properties and cultural practices in the project area. On November 5, 2015, e-mails containing a letter and a map of the project area (formatted as a Portable Document Format [PDF] file) were sent to Mr. Wayne Hedani of KOA, Mr. Ekolu Lindsey of Maui Cultural Lands, Inc., and Ms. Patty Nishiyama of Na Kupuna O Maui. On December 17, 2015, a slightly revised letter and PDF map were e-mailed to Ms. Nishiyama and Mr. Foster Ampong. Table 2 summarizes the responses provided by the individuals and organizations consulted; all query letters and responses are reproduced in Appendix A.

Table 2. Responses Provided by Individuals and Organizations Consulted on the Kā'anapali Beach Restoration Project.

Individual or Organization	Comments
Wayne Hedani/Kā'anapali Operations Association	<ol style="list-style-type: none"> 1) Provided the names of other cultural consultants with knowledge of the project area. 2) Briefly mentioned potentially relevant books and photographs held at the KOA offices. 3) Noted that cultural practices in the project area include <i>nabeta</i> (<i>Iniistius pavo</i>) fishing, throw netting, and crabbing for Kona crab (<i>Ranina ranina</i>). Mr. Hedani suggested that any fish and crabs removed during dredging could be quickly returned to the sea using mitigation measures. 4) Mentioned that human ashes have been scattered offshore of Kā'anapali Beach during modern funeral ceremonies. 5) Recalled that a great Hawaiian battle took place in the Kā'anapali area (probably the Battle of Koko O Nā Moku), and that one army landed 600 canoes along the Kā'anapali shoreline. 6) In a personal communication on November 9, 2015, Mr. Hedani said that the cemetery on Pu'u Keka'a was removed before the Sheraton Maui Resort and Spa was built, and that all remains not returned to relatives were reinterred at a private location in Kā'anapali.
Ekolu Lindsey/Maui Cultural Lands, Inc.	Receipt of e-mail acknowledged; no further response.
Patty Nishiyama/Na Kupuna O Maui	Response pending.
Foster Ampong	Response pending.

The following paragraph is based on information from a 1998 archaeological monitoring report (D. Fredericksen 1998). Mr. Sam Kadotani, who was born in a small village near Kā'anapali Landing in the 1920s, oversaw the removal of a large Japanese cemetery in the "grotto area" south of Pu'u Keka'a (see Fig. 8) before construction of the Sheraton Maui Resort and Spa began in the early 1960s. According to Mr. Kadotani, each set of remains was cremated and returned to surviving relatives. Mr. Kadotani estimated that the cemetery was established sometime around the year 1900. Mr. Hanalei Peters, a

member of the original Sheraton Maui Resort construction crew, reported that many human bones were disturbed during grading across the top of Pu‘u Keka‘a, and that additional burials found in small caves in the south face of the cliff were also removed and reinterred. Mr. James Cockett, a manager of the Sheraton Maui Resort during the 1960s, said that the cemetery on Pu‘u Keka‘a was moved while the resort was being planned, and that the remains were temporarily stored at the Central Power station until relatives claimed them. Mr. Cockett also noted that the remains of a famous Lāhainā resident named William Shaw were reburied at the Waiola Church cemetery in Lāhainā.

The authors of a 2002 CIA for the Marriott’s Maui Ocean Club (McGerty and Spear 2002b) contacted the SHPD, the Office of Hawaiian Affairs, a member of the Maui Burial Council, the president of the Central Maui Hawaiian Civic Club, the Maui Historical Society, and cultural practitioners associated with the Kā‘anapali Beach resorts for any information about ongoing cultural activities near the resort. None of the consultants provided cultural information for the project area vicinity.

On November 9, 2015, a meeting was held at the KOA offices in Kā‘anapali to preliminarily discuss the need for archaeological monitoring during project construction activities. The meeting participants were Ms. Morgan Davis and Mr. Hinano Rodriguez of SHPD, Mr. Hedani of KOA, Mr. Chris Conger of Sea Engineering, Inc., Mr. Samuel Lemmo and Dr. Bradley Romine of the Office of Conservation and Coastal Lands, and Mr. Robert Pacheco of IA.

All meeting participants provisionally agreed upon the following mitigation actions:

1. An EIS for the project will be completed before the start of construction activity.
2. Public meetings will be held during EIS development to solicit community feedback concerning the potential impacts of construction activity.
3. In advance of construction, geotechnical investigation (such as soil borings) will be conducted in areas on the east edge of the Berm Enhancement subarea—along the *naupaka* hedge—where berm excavation may intrude into the static fills underlying the resort properties. This testing will ensure that any potential historic properties below the fills are not impacted by ground disturbing construction activities.
4. Project construction activity will be monitored by a qualified archaeologist. If a historic property is inadvertently encountered during construction, all work in the surrounding area will immediately cease, and the appropriate agencies (including the SHPD) will be promptly notified. The full extent of monitoring will be determined during development of an Archaeological Monitoring Plan, which will be reviewed and approved by the SHPD before project construction begins.

The final construction plans—detailing the specific dredging techniques to be used, and possibly expanding or repositioning the offshore sand areas—are still under development. Consequently, the mitigation actions listed above may be subject to revision at a later date.

During the meeting, Mr. Rodriguez emphasized that any construction work around Pu‘u Keka‘a could potentially offend members of the local Hawaiian community for several reasons:

- Pu‘u Keka‘a is considered a *leina a ka uhane*, with an intangible boundary that may extend far beyond the cliff itself. Any construction work within this boundary would violate the sanctity of the place.

- The presence of resort hotels and other tourism facilities on and around Pu‘u Keka‘a violates a sacred Hawaiian cultural place. Community members may react negatively to any construction project near Pu‘u Keka‘a that is perceived to serve the resorts’ interest.
- Hundreds, if not thousands, of *iwi kupuna* (ancestral remains) have been disturbed or displaced by resort construction on and around Pu‘u Keka‘a over the last 55 years. The general disrespect accorded to these burials during the modern era is considered an act of profound desecration by many members of the Hawaiian community. Mr. Rodriguez specifically cited an attempt made by a visitor to sell a human skull he recovered from Kā‘anapali Beach in the 1960s on the online auction website eBay. The prospect of disturbing additional burials during further ground disturbing construction activities may raise concerns among community members.

In order to address these concerns, Mr. Rodriguez strongly suggested that the local community be regularly consulted at all stages of project development, typically through public meetings. He also emphasized that archaeological monitoring during construction would be an invaluable method for addressing community concerns.

IV. CONCLUSION AND RECOMMENDATIONS

The Kā'anapali Beach Restoration project will restore a roughly 2,250 m (7,382 ft) segment of the dynamic beach (also known as South Beach) to a recent (1980s) historical position. In the Beach Nourishment subarea, extending from Hanaka'ō'ō Point (middle) to Hanaka'ō'ō Park (south end), sand dredged from an offshore area will be placed directly atop the existing beach face and berm. In the Berm Enhancement subarea, extending from Pu'u Keka'a (north end) to Hanaka'ō'ō Point (middle), the existing berm will be excavated 0.3–0.9 m (1–3 ft) below the present surface, and the recovered sand stockpiled; the trench will then be backfilled using offshore sand, and the stockpiled sand will be spread atop the fill, raising the elevation of the berm 0.3–0.6 m (1–2 ft) above its original grade. Berm excavation will stop at the west edge of the *naupaka* hedge that runs along the east edge of the Berm Enhancement subarea. The offshore sand will be dredged from locations west of Kā'anapali Beach.

Pu'u Keka'a (or Black Rock), the prominent basalt cliff at the north end of the project area, holds a sacred position within traditional Hawaiian culture. The hill features prominently in several ancient legends, served as an important burial ground from the pre-Contact era through the mid-20th century, and according to traditional Hawaiian religion, it is a *leina a ka uhane*, a place where deceased spirits pass into the afterlife. From 1863 to approximately 1960, the Pioneer Mill Company repurposed nearly all coastal lands in Kā'anapali for sugarcane cultivation, and new structures were subsequently constructed in areas adjacent to the project area, including houses, a ship landing, industrial buildings, cemeteries, and a horse racing track. During the 1960s, all lands surrounding the project area were cleared for resort construction, and most remaining archaeological surface features, including the cemeteries on and around Pu'u Keka'a, were largely relocated or removed at this time.

A single historic property—the Hanaka'ō'ō grinding stones site (SIHP 50-50-03-1204)—has been recorded in the beach west of Hanaka'ō'ō Park, which falls within the Beach Nourishment subarea. Erosional, tidal, and anthropogenic impacts during the modern era have almost certainly destroyed any other in situ properties formerly present within the dynamic beach. Construction excavations in the resort properties on the east side of the project area have periodically exposed prehistoric and historic in situ human burials, isolated human skeletal elements, and remnant cultural deposits (Paraso and Dega 2006) below the modern construction fills. Ground disturbing construction activities in the Berm Enhancement subarea could approach and inadvertently impact these fills.

Local aquaculture such as fishing and crabbing, and traditional water sports like surfing and canoe paddling, continue to be practiced within the project area. Access to portions of the beach will be limited during project construction activities, and may interfere with some shoreline activities. A full environmental assessment for the Kā'anapali Beach Restoration project, which will address the potential impacts of construction activities on the local marine ecosystem, is under preparation.

The SHPD provisionally recommends that an EIS be completed before project construction begins, that public meetings be held during the EIS process, that geotechnical investigations be conducted in areas where berm excavation may intrude into static fills, and that construction activities be monitored by a qualified archaeologist. Potential community concerns about construction near Pu'u Keka'a—which is an important Hawaiian cultural place—can be best addressed through public outreach and archaeological monitoring during project activities.

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**APPENDIX A:
CONSULTATION LETTERS AND RESPONSES**



Robert Pacheco <rpacheco@iarii.org>

Kā'anapali Beach Restoration project - request for cultural consultation

Robert Pacheco <rpacheco@iarii.org>

Thu, Nov 5, 2015 at 11:07 AM

Aloha, Mr. Hedani,

My name is Robert Pacheco, and I am an archaeologist based in Honolulu. My company, International Archaeology, LLC (IA), is preparing a Cultural Impact Assessment (CIA) for a project to replenish the sand along the "South Beach" portion of Kā'anapali Beach between Pu'u Keka'a and Hanaka'o'o Park. The project's lead contractor is Sea Engineering, Inc. IA's primary goal is to collect all available information about the history, historic places, and traditional cultural practices associated with South Beach, so that the project construction plans can be adjusted to avoid or minimize any impact to the traditional cultural properties and practices in the area. The CIA will be developed in consultation with the State Historic Preservation Division (SHPD).

As someone with a deep historical understanding of the Kā'anapali region, any cultural and historical information you would be willing to share with us about the project area (which I will describe in detail below) would be greatly appreciated. Although we are already conducting extensive library and archival research, we understand that the most profound knowledge about a place often arises from the learned members of the local community. It is our hope that you can offer some of the knowledge needed to fully appreciate the consequences of the planned construction work, and to propose alternatives that will mitigate the project's impact on Kā'anapali Beach as a cultural location.

To give you a sense of the project's scope, I will describe the project area and current construction plans, then briefly summarize the archaeological background information we have assembled for South Beach so far.

Proposed Project

As you read the following description of anticipated construction work, please refer to the map attached to this e-mail (Kaanapali_Beach_Restoration_project_area.pdf). In the Beach Nourishment area extending from Hanaka'o'o Point (middle) to Hanaka'o'o Park (south end), marked with horizontal red lines on the map, sand dredged from offshore will be placed directly on top of the existing beach face and berm. In the Berm Enhancement area between Pu'u Keka'a (north end) and Hanaka'o'o Point (middle), marked with slanted red lines on the map, the existing sand berm will be excavated 1–3 ft below the existing surface, and the recovered sand stockpiled; the trench will then be backfilled using offshore sand, and the stockpiled sand will be spread atop the fill, raising the elevation of the berm 1–2 ft above its original grade. The replenishment sand will be taken from two offshore areas (the Kekaa Point Sand Area and the Offshore Sand Area) labeled with green lines on the map. All ground-disturbing work will likely be confined to the active beach and offshore areas.

Background Research

No archaeological features have been recorded—and very likely no longer exist—within the project area, due mostly to the seasonal overturning of the Kā'anapali shoreline by waves and tides, and to periods of severe erosion caused by Kona storms and hurricane waves. However, several important historic properties are located in areas adjacent to the project area, and will be taken into account during construction planning. Pu'u Keka'a, for example, is mentioned often in Hawaiian legends, and according to Hawaiian traditions, is considered a *leina a ka uhane*, a leaping place where departed souls pass into the afterlife. Burial grounds and cemeteries dating from the pre-Contact and early post-Contact eras were once located on Pu'u Keka'a and in areas just inland of the shoreline, but were displaced and in many cases severely damaged by construction of the modern Kā'anapali resorts beginning in the 1960s. Human burials, human skeletal fragments, and grave goods are still sometimes exposed during construction excavations within the resort properties. Surface archaeological features, such as the Hanaka'o'o grinding stones, are present in Hanaka'o'o Park, but should not be affected by the project construction activities.

Request For Input

<https://mail.google.com/mail/u/0/?ui=2&ik=57bc69c3ce&view=pt&qr=request%20for%20cultural%20&qs=true&search=query&msq=150d97962f6aa8c8&siml=150d9...> 1/2

The CIA will discuss these cultural properties in greater detail, and include more historical information about this portion of Kā'anapali Beach, encompassing a timeline from the pre-Contact Hawaiian era to the Pioneer Mill Company plantation period. As a consultant, it is our hope that you can offer information that would be beneficial to include in the CIA, or suggest avenues of further research we can pursue. These are the most fundamental questions:

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- What are the ongoing cultural practices in this area (if you are comfortable sharing them)?
- Will the project construction activities (as currently planned) impact any historical properties and/or cultural practices that you know of?

Please share as much (or as little) as you would like. An e-mail reply would be ideal; you can send any comments or questions to rpacheco@iarii.org. If you would like to speak in person, I will be on Maui early next week, and may be able to arrange a face-to-face meeting on November 10 or 11.

Mahalo for your assistance,

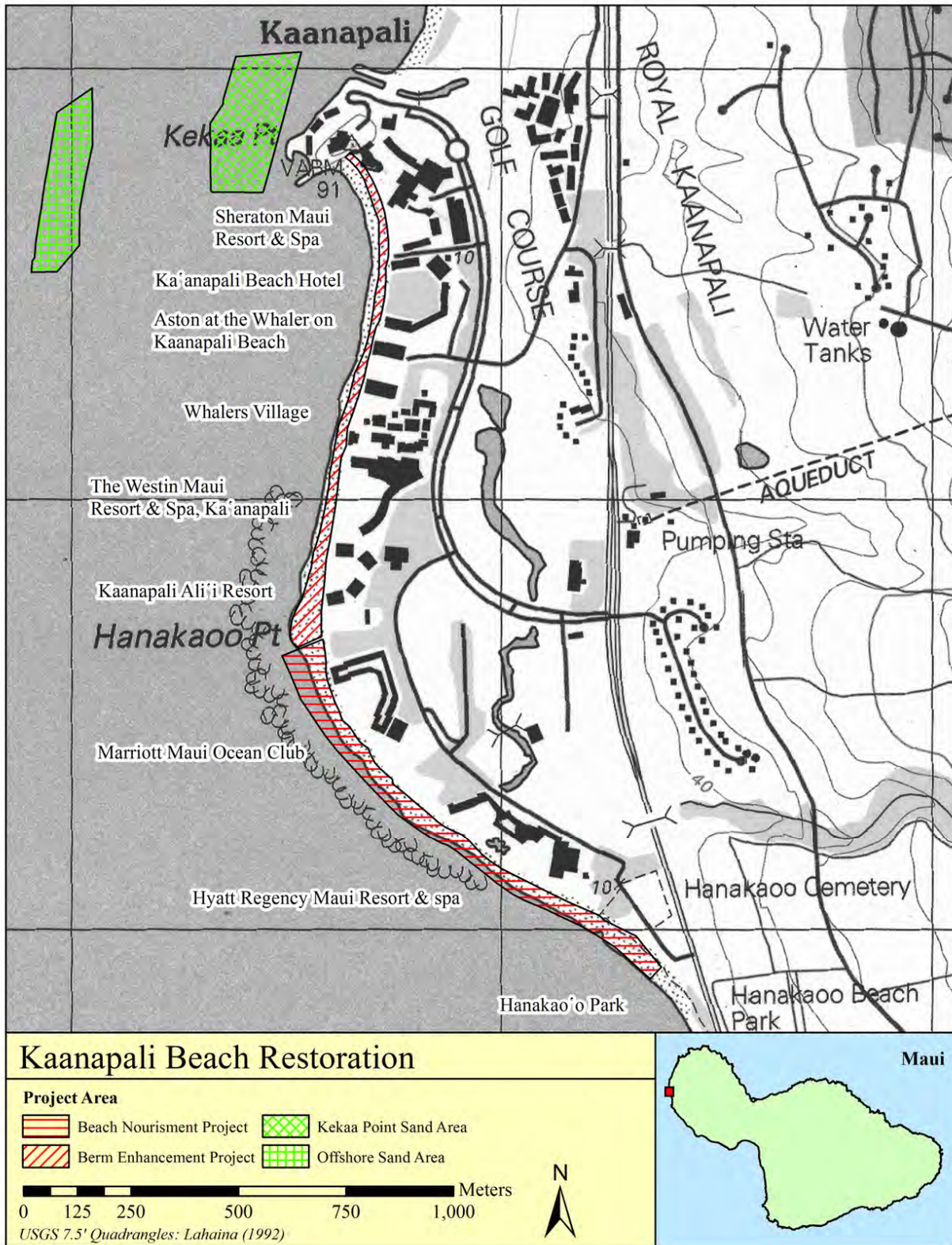
Robert

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Robert Pacheco, M.A.
Field Supervisor
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Kaanapali_Beach_Restoration_project_area.pdf
235K





Robert Pacheco <rpacheco@iarii.org>

Re: Ka'anapali Beach Restoration project - request for cultural consultation

Fri, Nov 6, 2015 at 11:20 AM

To: rpacheco@iarii.org

Cc: [REDACTED]

Robert:

Your assessment of the history of the project area appears to be accurate.

You may want to contact Shelley Kekuna of KBRA as they did a historical tour of Kaanapali, the information may or may not be relevant to the project area but provides information on the area in general. Other individuals who may be able to shed additional light on the history of the area include Sam Kaai and Patty Nishiyama, and Ekolu Lindsey for general information. Sam is a cultural practitioner and Patty is a member of a kupuna's group. Ekolu is doing a cultural restoration project deep in Honokowai Valley.

We have a book on Kaanapali here in our office which sheds some light on the history of the area.

I have some old aerial photographs of the area dated to 1949 which you can review.

Cultural practices in the area include fishing, throw netting, crabbing for Kona Crab, and fishing for Nabeta. Kona crab is likely in the sand fields as may be nabeta which is a prized fish species. Mitigation efforts during sand excavation could include return any crabs and or fish into the sea if extracted with the sand and if necessary reseeding the area with crab and fish if the project is detrimental to these populations.

Also a consideration is that people have been buried at sea through the scattering of ashes offshore. I have witnessed one such event in my lifetime offshore of Hanakao Beach Park.

It is unlikely that the project will affect any of these cultural practices in my opinion. The crab will continue to thrive in the sand once the project is complete as will the fish, perhaps several inches below the current sand depths. We may want to get input from Aquatic Resources Division on the spawning periods for crab and nabeta to avoid impacting the species during those times.

Historically, Kaanapali was the scene of one of the greatest battles in Hawaiian History I am told. Kamehameha brought 600 canoes around the channel and landed on the coast along Kaanapali and engaged with Kahekili's forces from Maui in a battle that moved along the coast. Bodies of the fallen were buried where they fell it was said. I doubt that any skeletal remains currently exist in the beach zone however due to the action of the waves as you have discussed over time. This may be something you may not want to share with the public.

That is about all I can offer at this point. KOA is a 50% partner in this sand restoration project financially for your information.

Let me know if we are still on for our meeting at 1pm on Monday (I was coming in to meet with you from my scheduled vacation).

Aloha,
Wayne N. Hedani
President
Kaanapali Operations Association, Inc.



Robert Pacheco <rpacheco@iarii.org>

Kā'anapali Beach Restoration project - request for cultural consultation

Robert Pacheco <rpacheco@iarii.org>

Thu, Nov 5, 2015 at 11:06 AM

To: [REDACTED]

Aloha, Mr. Lindsey,

My name is Robert Pacheco, and I am an archaeologist based in Honolulu. My company, International Archaeology, LLC (IA), is preparing a Cultural Impact Assessment (CIA) for a project to replenish the sand along the "South Beach" portion of Kā'anapali Beach between Pu'u Keka'a and Hanaka'ō'ō Park. The project's lead contractor is Sea Engineering, Inc. IA's primary goal is to collect all available information about the history, historic places, and traditional cultural practices associated with South Beach, so that the project construction plans can be adjusted to avoid or minimize any impact to the traditional cultural properties and practices in the area. The CIA will be developed in consultation with the State Historic Preservation Division (SHPD).

As someone with a deep historical understanding of the Kā'anapali region, any cultural and historical information you would be willing to share with us about the project area (which I will describe in detail below) would be greatly appreciated. Although we are already conducting extensive library and archival research, we understand that the most profound knowledge about a place often arises from the learned members of the local community. It is our hope that you can offer some of the knowledge needed to fully appreciate the consequences of the planned construction work, and to propose alternatives that will mitigate the project's impact on Kā'anapali Beach as a cultural location.

To give you a sense of the project's scope, I will describe the project area and current construction plans, then briefly summarize the archaeological background information we have assembled for South Beach so far.

Proposed Project

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Background Research

No archaeological features have been recorded—and very likely no longer exist—within the project area, due mostly to the seasonal overturning of the Kā'anapali shoreline by waves and tides, and to periods of severe erosion caused by Kona storms and hurricane waves. However, several important historic properties are located in areas adjacent to the project area, and will be taken into account during construction planning. Pu'u Keka'a, for example, is mentioned often in Hawaiian legends, and according to Hawaiian traditions, is considered a *leina a ka uhane*, a leaping place where departed souls pass into the afterlife. Burial grounds and cemeteries dating from the pre-Contact and early post-Contact eras were once located on Pu'u Keka'a and in areas just inland of the shoreline, but were displaced and in many cases severely damaged by construction of the modern Kā'anapali resorts beginning in the 1960s. Human burials, human skeletal fragments, and grave goods are still sometimes exposed during construction excavations within the resort properties. Surface archaeological features, such as the Hanaka'ō'ō grinding stones, are present in Hanaka'ō'ō Park, but should not be affected by the project construction activities.

Request For Input

<https://mail.google.com/mail/u/0/?ui=2&ik=57bc69c3ce&view=pt&as=request%20for%20cultural%20ai&as=true&search=query&msq=150d978947e5771a&siml=150d...> 1/2

The CIA will discuss these cultural properties in greater detail, and include more historical information about this portion of Kā'anapali Beach, encompassing a timeline from the pre-Contact Hawaiian era to the Pioneer Mill Company plantation period. As a consultant, it is our hope that you can offer information that would be beneficial to include in the CIA, or suggest avenues of further research we can pursue. These are the most fundamental questions:

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Mahalo for your assistance,

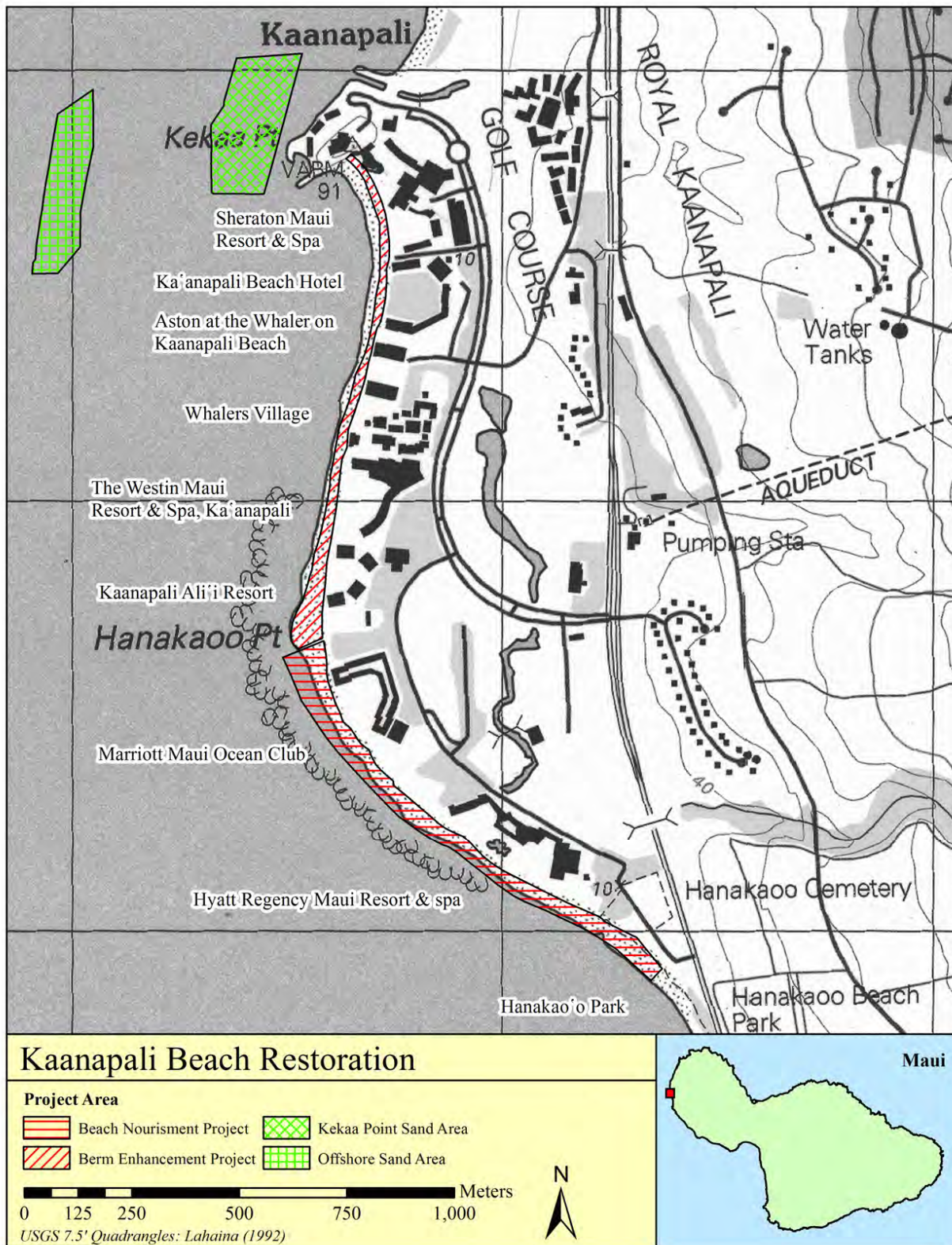
Robert

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Robert Pacheco, M.A.
Field Supervisor
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2081 Young Street
Honolulu, HI 96826-2231
TEL: (808) 946-2548, ext. 118
FAX: (808) 943-0716
E-MAIL: RPacheco@iarii.org



Kaanapali_Beach_Restoration_project_area.pdf
235K





Robert Pacheco <rpacheco@iarii.org>

**Kā'anapali Beach Restoration project - request for cultural consultation
#N00020616**

OluKai-Customer Service <info@olukai.com>

Thu, Nov 5, 2015 at 11:07 AM

Reply-To: info@olukai.com

To: rpacheco@iarii.org

Cc: [REDACTED]

Aloha,

Mahalo for reaching out to us at OluKai. Your email is very important to us and our goal is to help you as soon as possible. During our normal business hours (Monday-Friday, 8am - 5pm PST), you can expect to hear back from us within 1 business day. It may take a bit longer on evenings, weekends and holidays.

Thank you for your patience and understanding. We look forward to assisting you.

Mahalo!

OluKai Customer Service

office (866) 467-9694

fax (949) 315-3420

www.olukai.com

Ticket details:

Aloha, Mr. Lindsey,

My name is Robert Pacheco, and I am an archaeologist based in Honolulu. My company, International Archaeology, LLC (IA), is preparing a Cultural Impact Assessment (CIA) for a project to replenish the sand along the "South Beach" portion of Kā'anapali Beach between Pu'u Keka'a and Hanaka'o'o Park. The project's lead contractor is Sea Engineering, Inc. IA's primary goal is to collect all available information about the history, historic places, and traditional cultural practices associated with South Beach, so that the project construction plans can be adjusted to avoid or minimize any impact to the traditional cultural properties and practices in the area. The CIA will be developed in consultation with the State Historic Preservation Division (SHPD).

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To give you a sense of the project's scope, I will describe the project area and current construction plans, then briefly summarize the archaeological background information we have assembled for South Beach so far.

Proposed Project

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Background Research

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Request For Input

The CIA will discuss these cultural properties in greater detail, and include more historical information about this portion of Kā'anapali Beach, encompassing a timeline from the pre-Contact Hawaiian era to the Pioneer Mill Company plantation period. As a consultant, it is our hope that you can offer information that would be beneficial to include in the CIA, or suggest avenues of further research we can pursue. These are the most fundamental questions:

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Please share as much (or as little) as you would like. An e-mail reply would be ideal; you can send any comments or questions to rpacheco@iarii.org. If you would like to speak in person, I will be on Maui early next week, and may be able to arrange a face-to-face meeting on November 10 or 11.

Mahalo for your assistance,

Robert

—

Robert Pacheco, M.A.
Field Supervisor

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2081 Young Street
Honolulu, HI 96826-2231
TEL: (808) 946-2548, ext. 118
FAX: (808) 943-0716
E-MAIL: RPacheco@iani.org

 **Kaanapali_Beach_Restoration_project_area.pdf**
235K



Robert Pacheco <rpacheco@iarii.org>

Kā'anapali Beach Restoration project - request for cultural consultation

Robert Pacheco <rpacheco@iarii.org>

Thu, Nov 5, 2015 at 11:06 AM

To: [REDACTED]

Aloha, Ms. Nishiyama,

My name is Robert Pacheco, and I am an archaeologist based in Honolulu. My company, International Archaeology, LLC (IA), is preparing a Cultural Impact Assessment (CIA) for a project to replenish the sand along the "South Beach" portion of Kā'anapali Beach between Pu'u Keka'a and Hanaka'ō'ō Park. The project's lead contractor is Sea Engineering, Inc. IA's primary goal is to collect all available information about the history, historic places, and traditional cultural practices associated with South Beach, so that the project construction plans can be adjusted to avoid or minimize any impact to the traditional cultural properties and practices in the area. The CIA will be developed in consultation with the State Historic Preservation Division (SHPD).

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To give you a sense of the project's scope, I will describe the project area and current construction plans, then briefly summarize the archaeological background information we have assembled for South Beach so far.

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Request For Input

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The CIA will discuss these cultural properties in greater detail, and include more historical information about this portion of Kā'anapali Beach, encompassing a timeline from the pre-Contact Hawaiian era to the Pioneer Mill Company plantation period. As a consultant, it is our hope that you can offer information that would be beneficial to include in the CIA, or suggest avenues of further research we can pursue. These are the most fundamental questions:

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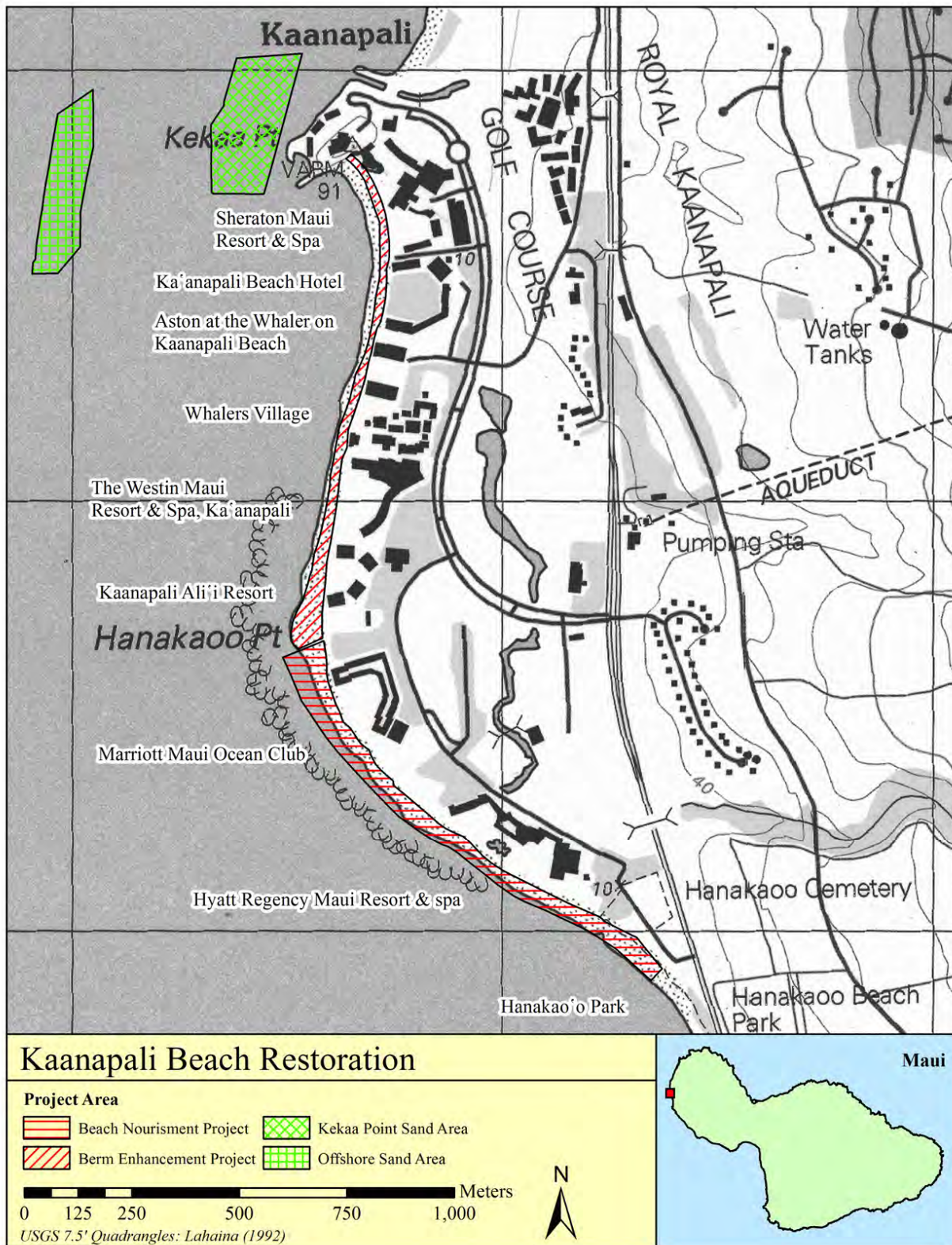
Robert

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235K





Robert Pacheco <rpacheco@iarii.org>

Ka'anapali Beach Restoration project - request for cultural consultation

Robert Pacheco <rpacheco@iarii.org>

Thu, Dec 17, 2015 at 4:53 PM

To: [REDACTED]

Aloha, Ms. Nishiyama,

Thank you for returning my call this afternoon. My name is Robert Pacheco, and my company, International Archaeology, LLC (IA), is preparing a Cultural Impact Assessment (CIA) for a project to replenish the sand along the "South Beach" portion of Kā'anapali Beach between Pu'u Kēka'a and Hanaka'ō'ō Park. The project's lead contractor is Sea Engineering, Inc. IA's primary goal is to collect all available information about the history, historic places, and traditional cultural practices associated with South Beach, so that the project construction plans can be adjusted to avoid or minimize any impact to the traditional cultural properties and practices in the area. The CIA will be developed in consultation with the State Historic Preservation Division (SHPD).

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To give you a sense of the project's scope, I will describe the project area and current construction plans, then briefly summarize the archaeological background information we have assembled for South Beach so far.

Proposed Project

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Background Research

A single archaeological feature—the Hanaka'ō'ō grinding stones site—has been recorded near the Beach Nourishment subarea, but it should not be affected by project construction activities. No other historic features are likely to exist within the project area, due primarily to the seasonal overturning of the Kā'anapali shoreline by waves and tides, and to periods of severe erosion caused by Kona storms and hurricane waves. However, several important historic properties are located in areas adjacent to the project area, and will be taken into account during construction planning. Pu'u Kēka'a, for example, is mentioned often in Hawaiian legends, and according to Hawaiian tradition, is considered a *leina a ka uhane*, a leaping place where departed souls pass into the afterlife. Burial grounds and cemeteries dating from the pre-Contact and early post-Contact eras were once located on Pu'u Kēka'a and in areas just inland of the shoreline, but were displaced and in many cases severely damaged by construction of the modern Kā'anapali resorts beginning in the 1960s. Human burials, human skeletal fragments, and grave goods are still sometimes exposed during construction excavations within the resort properties.

Request For Input

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Please share as much (or as little) as you would like. You can reach me at rpacheco@iarii.org, or by mail at International Archaeology, LLC, ATTN: Robert Pacheco, 2081 Young Street, Honolulu, HI, 96826-2231.

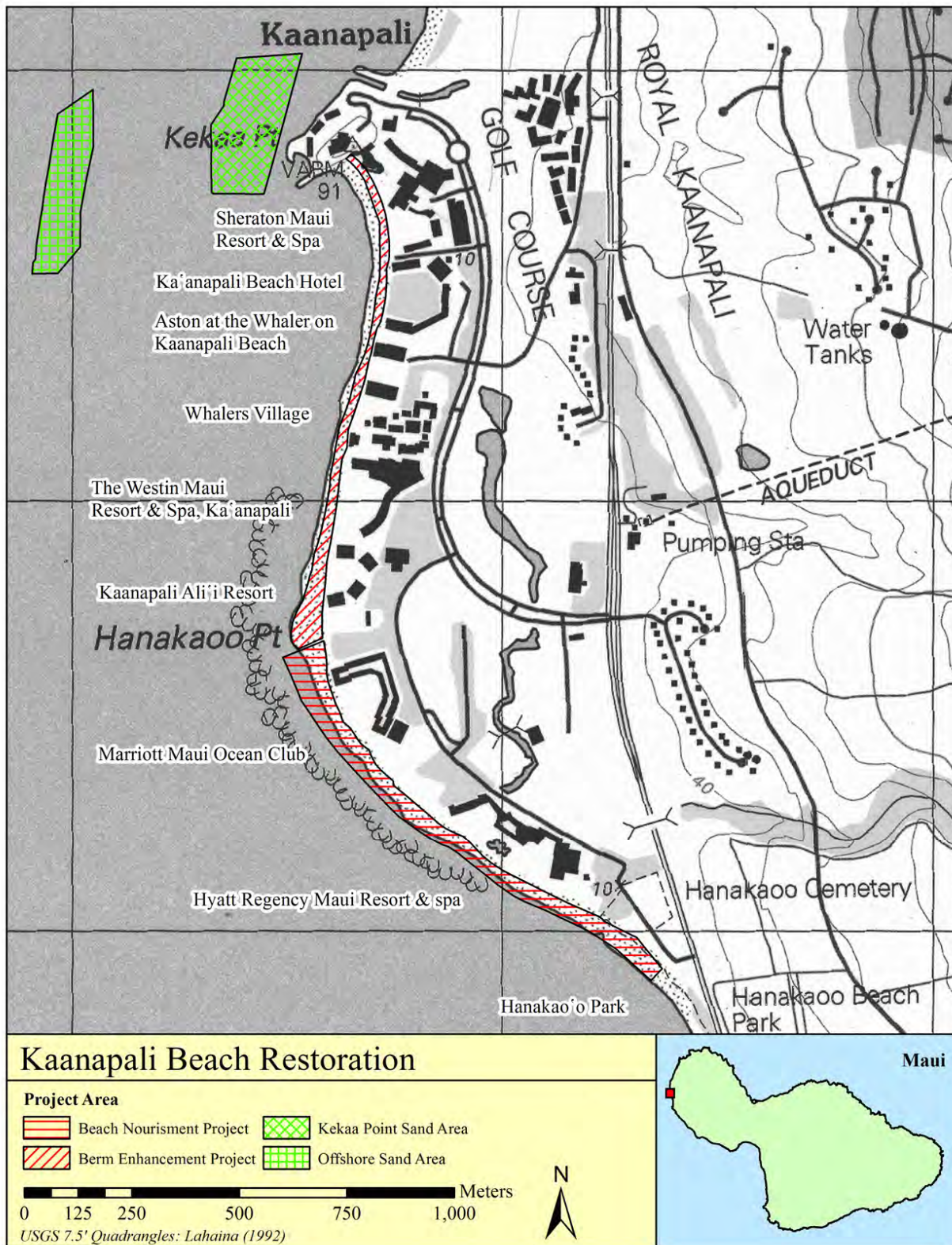
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Robert Pacheco <rpacheco@iarii.org>

CIA for Shoreline Restoration at Kekaa-Hanakao'o

Thu, Dec 17, 2015 at 2:49 PM

To: "rpacheco@iarii.org" <rpacheco@iarii.org>

Aloha Robert,

Mahalo for calling. Here are my contact info.

Foster Ampong

Email:

Phone

As discussed...you mentioned some stones at Hanakao'o registered/listed as arc features. Please forward whatever info you have of this feature (source, claim, mo'olelo, etc.).

Mahalo

Foster



Robert Pacheco <rpacheco@iarii.org>

CIA for Shoreline Restoration at Kekaa-Hanakao'o

Robert Pacheco <rpacheco@iarii.org>

Thu, Dec 17, 2015 at 3:26 PM

To: [REDACTED]

Aloha, Mr. Ampōng. The earliest reports I have for the Hanaka'ō'ō grinding stones site (SIHP 50-50-03-1204) are by Charles Keau (1981) and Earl Neller (1982), who conducted reconnaissance surveys in the area for the State Historic Preservation Office. Mr. Keau noted that the grinding stones were also described in a State Historic Survey, County of Maui 1973-74 report, but I have not seen this yet. The attached photos of the grinding stones are from a visit I made on November 9, 2015. The site is located just downslope of the Hanaka'ō'ō Park bathrooms.

As we discussed by phone earlier, my company, International Archaeology, LLC (IA), is preparing a Cultural Impact Assessment (CIA) for a project to replenish the sand along the "South Beach" portion of Kā'anapali Beach between Pu'u Keka'a and Hanaka'ō'ō Park. The project's lead contractor is Sea Engineering, Inc. IA's primary goal is to collect all available information about the history, historic places, and traditional cultural practices associated with South Beach, so that the project construction plans can be adjusted to avoid or minimize any impact to the traditional cultural properties and practices in the area. The CIA will be developed in consultation with the State Historic Preservation Division (SHPD).

As someone with a deep historical understanding of the Kā'anapali region, any cultural and historical information you would be willing to share with us about the project area (which I will describe in detail below) would be greatly appreciated. Although we are already conducting extensive library and archival research, we understand that the most profound knowledge about a place often arises from the learned members of the local community. It is our hope that you can offer some of the knowledge needed to fully appreciate the consequences of the planned construction work, and to propose alternatives that will mitigate the project's impact on Kā'anapali Beach as a cultural location. With your consent, any written statement you provide will be reproduced in full in the CIA appendix.

To give you a sense of the project's scope, I will describe the project area and current construction plans, then briefly summarize the archaeological background information we have assembled for South Beach so far.

Proposed Project

As you read the following description of anticipated construction work, please refer to the map attached to this e-mail (Kaanapali_Beach_Restoration_project_area.pdf). In the Beach Nourishment subarea extending from Hanaka'ō'ō Point (middle) to Hanaka'ō'ō Park (south end), marked with horizontal red lines on the map, sand dredged from offshore will be placed directly on top of the existing beach face and berm. In the Berm Enhancement subarea between Pu'u Keka'a (north end) and Hanaka'ō'ō Point (middle), marked with slanted red lines on the map, the existing sand berm will be excavated 1–3 ft below the existing surface, and the recovered sand stockpiled; the trench will then be backfilled using offshore sand, and the stockpiled sand will be spread atop the fill, raising the elevation of the berm 1–2 ft above its original grade. The replenishment sand will be taken from two offshore areas (the Kekaa Point Sand Area and the Offshore Sand Area) labeled with green lines on the map. All ground-disturbing work will likely be confined to the active beach and offshore areas.

Background Research

A single archaeological feature—the Hanaka'ō'ō grinding stones site—has been recorded near the Beach Nourishment subarea. No other historic features are likely to exist within the project area itself, due primarily to the seasonal overturning of the Kā'anapali shoreline by waves and tides, and to periods of severe erosion caused by Kona storms and hurricane waves. However, several important historic properties are located in areas adjacent to the project area, and will be taken into account during construction planning. Pu'u Keka'a, for example, is mentioned often in Hawaiian legends, and according to Hawaiian tradition, is considered a *leina a ka uhane*, a leaping place where departed souls pass into the afterlife. Burial grounds and cemeteries dating from the pre-Contact and early post-Contact eras were once located on Pu'u Keka'a and in areas just inland of the shoreline,

but were displaced and in many cases severely damaged by construction of the modern Kā'anapali resorts beginning in the 1960s. Human burials, human skeletal fragments, and grave goods are still sometimes exposed during construction excavations within the resort properties.

Request For Input

The CIA will discuss these cultural properties in greater detail, and include more historical information about this portion of Kā'anapali Beach, encompassing a timeline from the pre-Contact Hawaiian era to the Pioneer Mill Company plantation period. As a consultant, it is our hope that you can offer information that would be beneficial to include in the CIA, or suggest avenues of further research we can pursue. These are the most fundamental questions:

- What can we add to the present information? Is there anything that should not be included in a public document?
- Who else should we contact about the history of this area?
- Are there certain books about the area that we should read?
- What are the ongoing cultural practices in this area (if you are comfortable sharing them)?
- Will the project construction activities (as currently planned) impact any historical properties and/or cultural practices that you know of?

Please share as much (or as little) as you would like. Please send your reply to rpacheco@iarii.org, or to International Archaeology, LLC, ATTN: Robert Pacheco, 2081 Young Street, Honolulu, HI, 96826-2231.

Mahalo for your assistance,

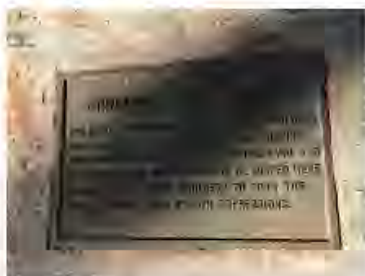
Robert

[Quoted text hidden]

—

Robert Pacheco, M.A.
Field Supervisor
International Archaeology, LLC (IA)
2081 Young Street
Honolulu, HI 96826-2231
TEL: (808) 946-2548, ext. 118
FAX: (808) 943-0716
E-MAIL: RPacheco@iarii.org

4 attachments



Hanakao'o Park grinding stones 1.JPG
1222K


Hanakao'o Park grinding stones 2.JPG

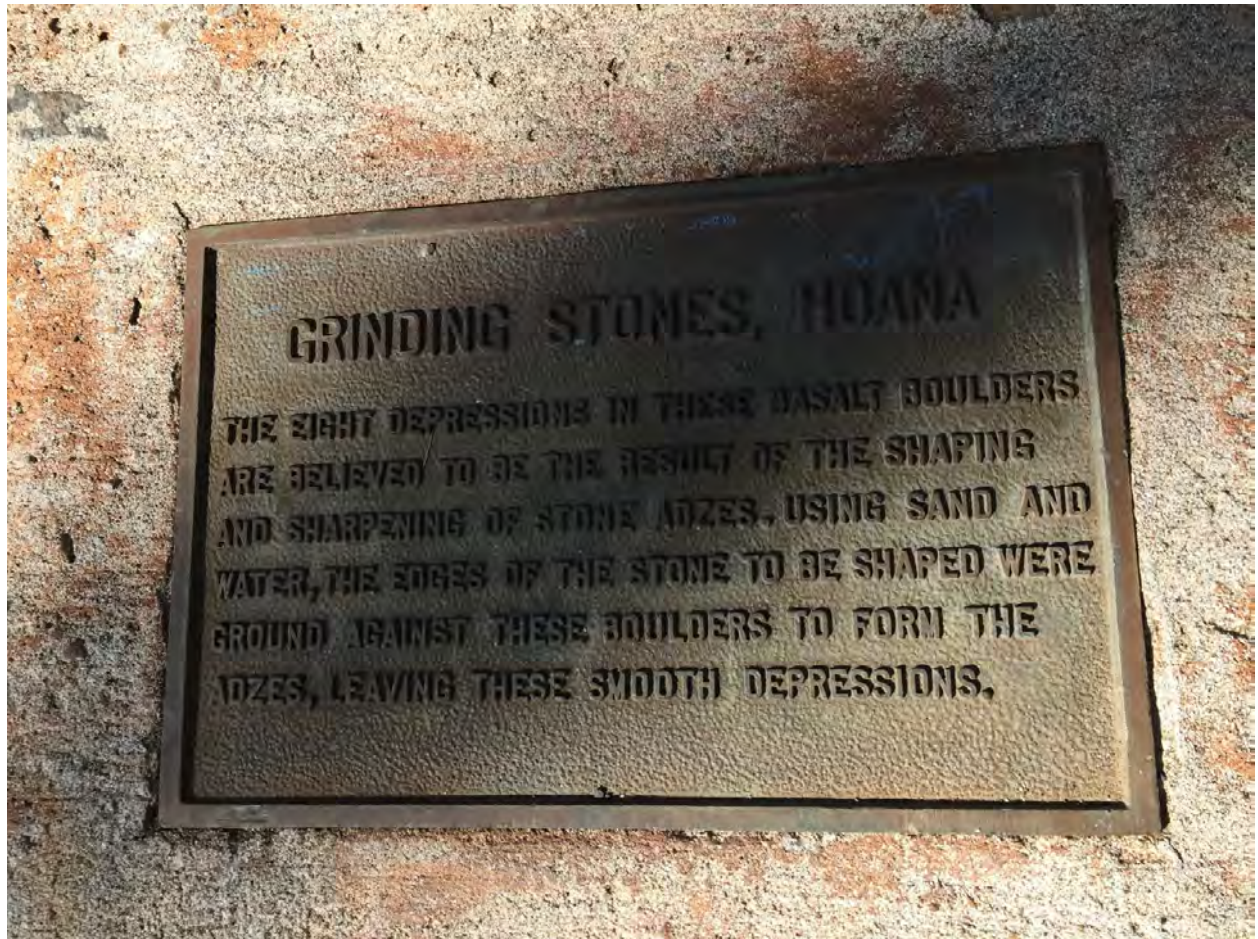


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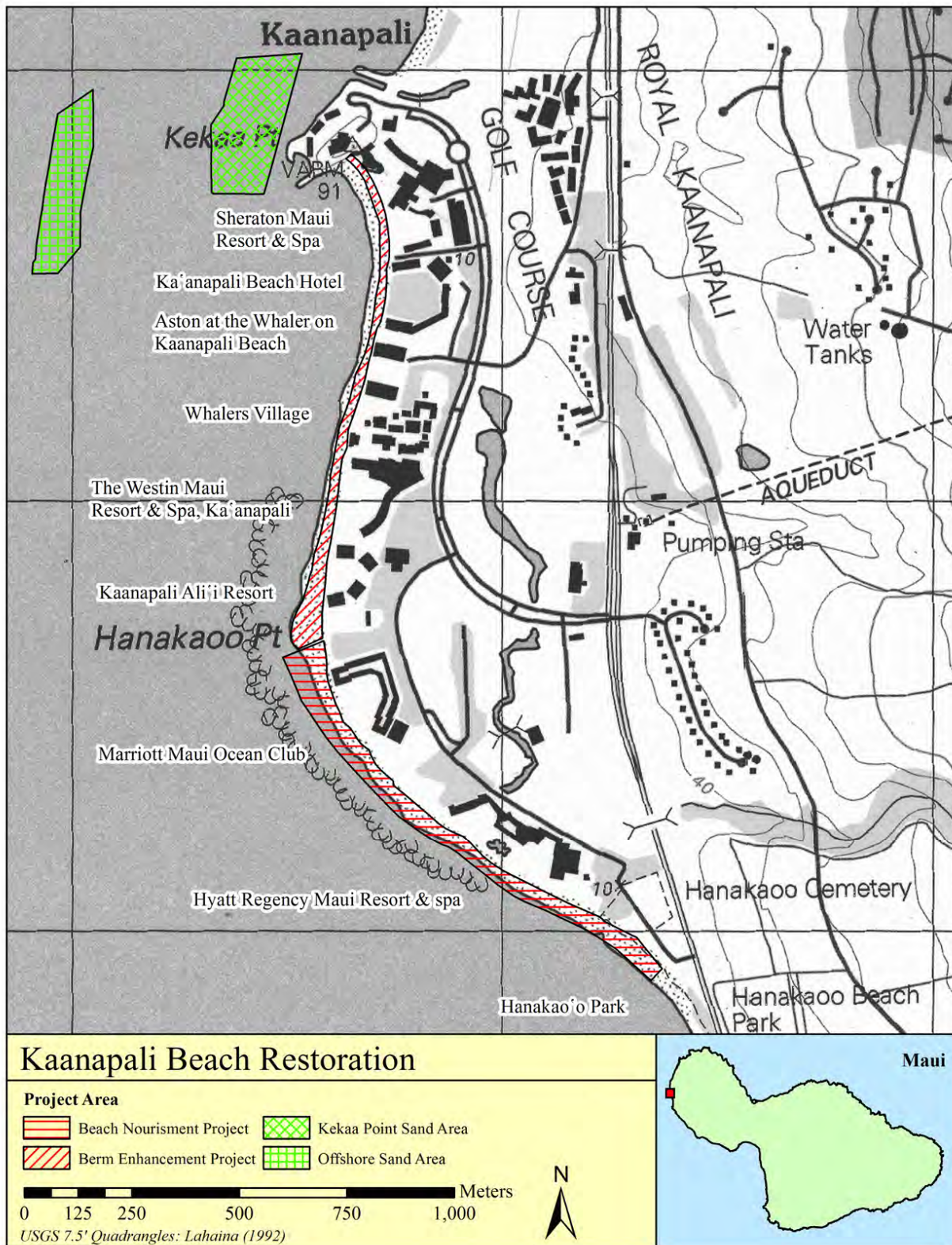
Hanakao'o Park grinding stones 3.JPG
885K

 Kaanapali_Beach_Restoration_project_area.pdf
235K









– *Final* –

An Archaeological Literature Review for the Proposed Kā‘anapali Beach Restoration Project, Hanaka‘ō‘ō Ahupua‘a, Lāhainā District, Island of Maui, Hawai‘i

TMK (2) 4-4-008:001, 002, 003, 004, 005, 019, 022; 4-4-013:001, 002,
006, 007, 008

Prepared by:

Robert Pacheco

Prepared for:

Sea Engineering, Inc.
41-305 Kalanianaʻole Hwy.
Makai Research Pier
Waimanalo, Hawai‘i 96795

INTERNATIONAL ARCHAEOLOGY, LLC.

OCTOBER 2015

– *FINAL* –

**AN ARCHAEOLOGICAL LITERATURE REVIEW FOR THE PROPOSED
KĀ‘ANAPALI BEACH RESTORATION PROJECT, HANAKA‘Ō‘Ō AHUPUA‘A,
LĀHAINĀ DISTRICT, ISLAND OF MAUI**

TMK (2) 4-4-008:001, 002, 003, 004, 005, 019, 022; 4-4-013:001, 002, 006, 007, 008

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October 2015

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I. INTRODUCTION

At the request of Sea Engineering, Inc., International Archaeology, LLC (IA) has completed an archaeological literature review for a portion of Kā'anapali Beach, Hanaka'ō'ō Ahupua'a, Lāhainā District, Island of Maui, TMK (2) 4-4-008:001, 002, 003, 004, 005, 019, 022, and TMK (2) 4-4-013:001, 002, 006, 007, 008. The literature review will be incorporated into a Cultural Impact Assessment (CIA) in support of an Environmental Impact Statement (EIS) for a project to restore a roughly 2,250 meter (m; 7,382 foot [ft]) segment of the dynamic beach to a recent (1980s) historical position.

The scope-of-work for this literature review includes [1] an assessment of archaeological and historical reports and maps—retrieved from the IA library and other O'ahu archives—for the portion of Kā'anapali Beach to be affected by the project, and [2] a preliminary assessment of potential adverse effects to archaeological resources within or adjacent to the project area. The review will include relevant maps and figures.

PROJECT AREA LOCATION

The project area encompasses an approximately 2,250 m (7,382 ft) segment of the Kā'anapali Beach dynamic shoreline between the prominent geographical feature Pu'u Keka'a (also known as Keka'a Point or Black Rock) to the north, and Hanaka'ō'ō Park to the south; this shoreline segment is known to the local community as “South Beach” (as opposed to “North Beach” north of Pu'u Keka'a). The project area also includes two discrete offshore sand areas near the beach (Fig. 1).

The shoreline portion of the project area is bounded on the west by the Pacific Ocean, and on the east by several large resort/commercial properties. For construction purposes, the project area is further divided into two smaller shoreline areas—with Hanaka'ō'ō Point roughly marking the separation between the two areas—where beach restoration activities will differ slightly (see Fig. 1). In the Beach Nourishment subarea, extending from Hanaka'ō'ō Point (middle) to Hanaka'ō'ō Park (south end), offshore sand will be placed directly atop the existing beach face and berm. In the Berm Enhancement subarea, from Pu'u Keka'a (north end) to Hanaka'ō'ō Point (middle), the existing berm will be excavated 0.3–0.9 m (1–3 ft) below the present surface, and the recovered sand stockpiled; the trench will then be backfilled using offshore sand, and the stockpiled sand will be spread atop the fill, raising the elevation of the berm 0.3–0.6 m (1–2 ft) above its original grade.

The project area includes two offshore areas where sand will be dredged from the ocean floor for placement onto the beach (see Fig. 1). The 4.77 hectare (ha; 11.77 acre) Keka'a Point Sand Area is located roughly 20–170 m (65–558 ft) west of Pu'u Keka'a, and the 3.62 ha (8.94 acre) Offshore Sand Area is located approximately 190–280 m (623–919 ft) west of Pu'u Keka'a.

The most appropriate methods for dredging, transporting, stockpiling, and placing the recovered sand, as well as staging the construction equipment and vehicles, will be determined during EIS development. All construction activity associated with the project will ideally be limited to the dynamic, seasonally overturned beach and offshore areas.

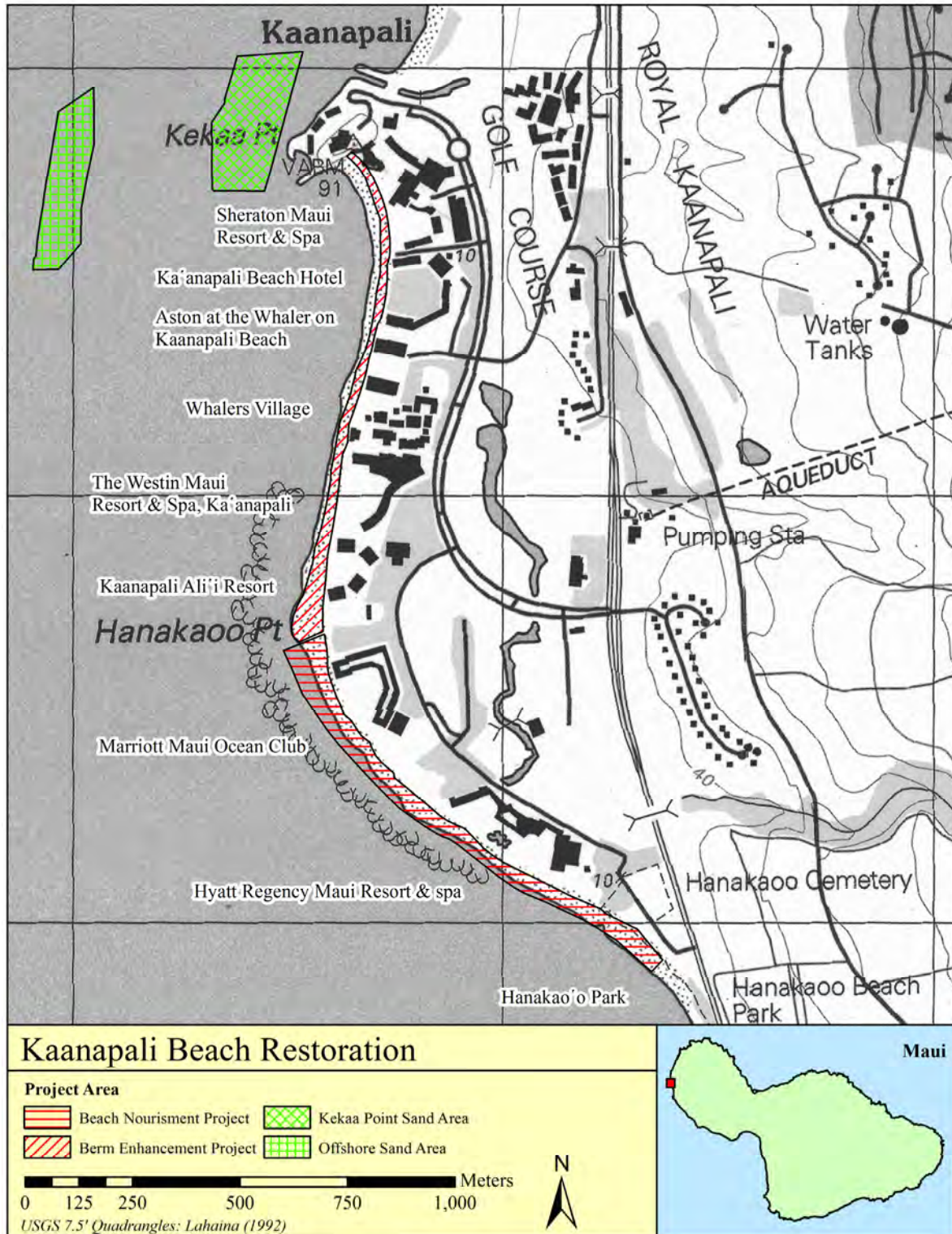


Figure 1. Project area location (TMKs 2-4-4-008 and 2-4-4-013; base map is 1992 USGS Lahaina, HI topographic quadrangle). The Berm Enhancement Project area (top) will extend to the edge of the current shoreline, which is not accurately reflected on the USGS map.

II. BACKGROUND

This section summarizes environmental, historical, and archaeological data previously recorded for the project area and its surrounding environs. This information has been culled from books and reports retrieved from the IA library, the State Historic Preservation Division (SHPD) library on O‘ahu, and the State of Hawai‘i, Department of Health, Office of Environmental Quality Control web site (<http://health.hawaii.gov/oeqc/>, retrieved October 13, 2015).

PHYSICAL ENVIRONMENT

The project area is a long, low, S-curving shoreline sand berm marked by the prominent basalt outcrop Pu‘u Keka‘a (or Keka‘a Point) at the north end. Hanaka‘ō‘ō Point is in the middle of the project area, and to the south the shoreline curves southeast, ending at Hanaka‘ō‘ō Park.

The project area is located on the leeward coastline of the West Maui Mountains, which were formed by the severe erosion of the shield volcano (West Maui Volcano) that dominates the northwestern quarter of Maui Island (MacDonald et al. 1983). Average rainfall ranges between 420 millimeters (mm) and 450 mm per year (Giambelluca et al. 2013). The project area falls within an alluvial fan created by outflow from Hahakea Stream, Wahikuli Stream, and other smaller drainages descending from the mountains to the east (Lee-Greig and Hammatt 2014). The Hahakea and Wahikuli streams converge and drain into the ocean at a location between the Hyatt Regency Maui Resort & Spa and Hanaka‘ō‘ō Park, in the south portion of the project area.

Foote et al. (1972) describe the shoreline portion of the project area as a Beach (symbol “BS”), consisting mainly of light-colored sands derived from coral and seashells that are regularly washed and reworked by ocean waves. The inland areas immediately east of the project area are designated Jaucas Sand with 0 to 15 percent slopes (symbol “JaC”), and are described as excessively drained, calcareous soils that occur as narrow strips on coastal plains adjacent to the ocean.

Pu‘u Keka‘a is a 26 m (85 ft) high cinder-and-spatter cone of picrite-basalt that formed during the Lahaina Volcanic Series, a relatively late period of volcanic activity in West Maui (MacDonald et al. 1983). The formation likely postdates the +7.6 m (25 ft) Waimanalo high seastand of the last Pleistocene interglacial period, as indicated by the absence of a wave-cut bench at its base (Stearns and MacDonald 1942). Foote et al. (1972) designate Pu‘u Keka‘a as Rock Land (symbol “rRK”), a basalt and andesite outcrop with very shallow soils.

Although the Kā‘anapali Beach shoreline is typically stable, and subject to mild erosion and moderate accretion that slowly and naturally replenish the beach over time, severe erosional events related to Kona storms and hurricane waves (Hurricane Iniki in 1992 is a notable example) have permanently altered the morphology of the shoreline (Eversole 2002). The portion of Kā‘anapali Beach within the project area (South Beach) is estimated to have lost 42,999±730 cubic meters of sediment between 1949 and 1997 due to periodic severe storms (Eversole 2002), and orthographic photographs of the shoreline from 1949 to 2007 (Figs. 2–5) show that the morphology of Kā‘anapali Beach is highly dynamic, but has generally receded over time. Given the extent of changes recorded over only the last 60-70 years, estimates of the historical shoreline position during the pre-Contact and early post-Contact eras would be highly speculative.

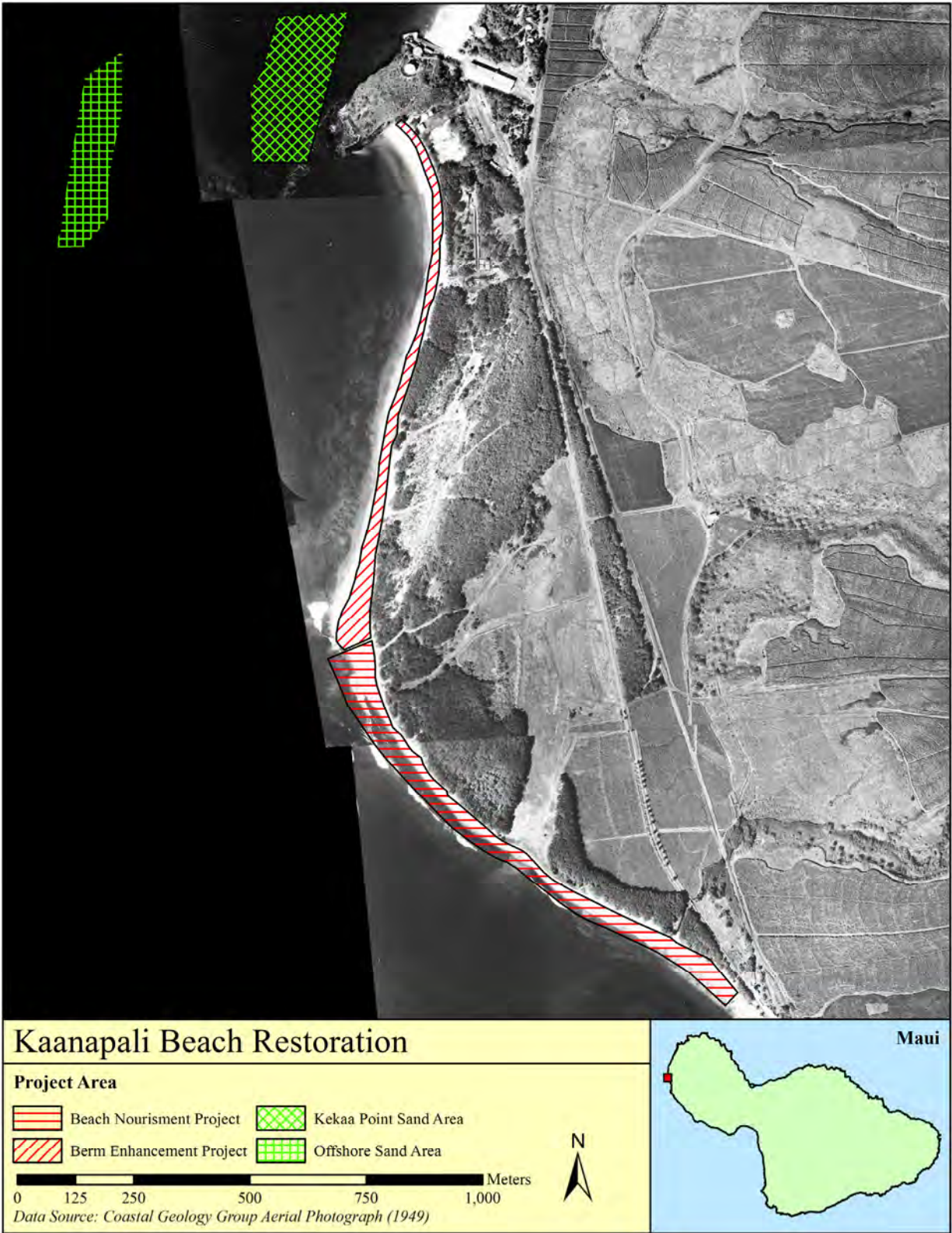


Figure 2. The project area projected onto a 1949 orthographic photograph of the Kā'anapali shoreline.

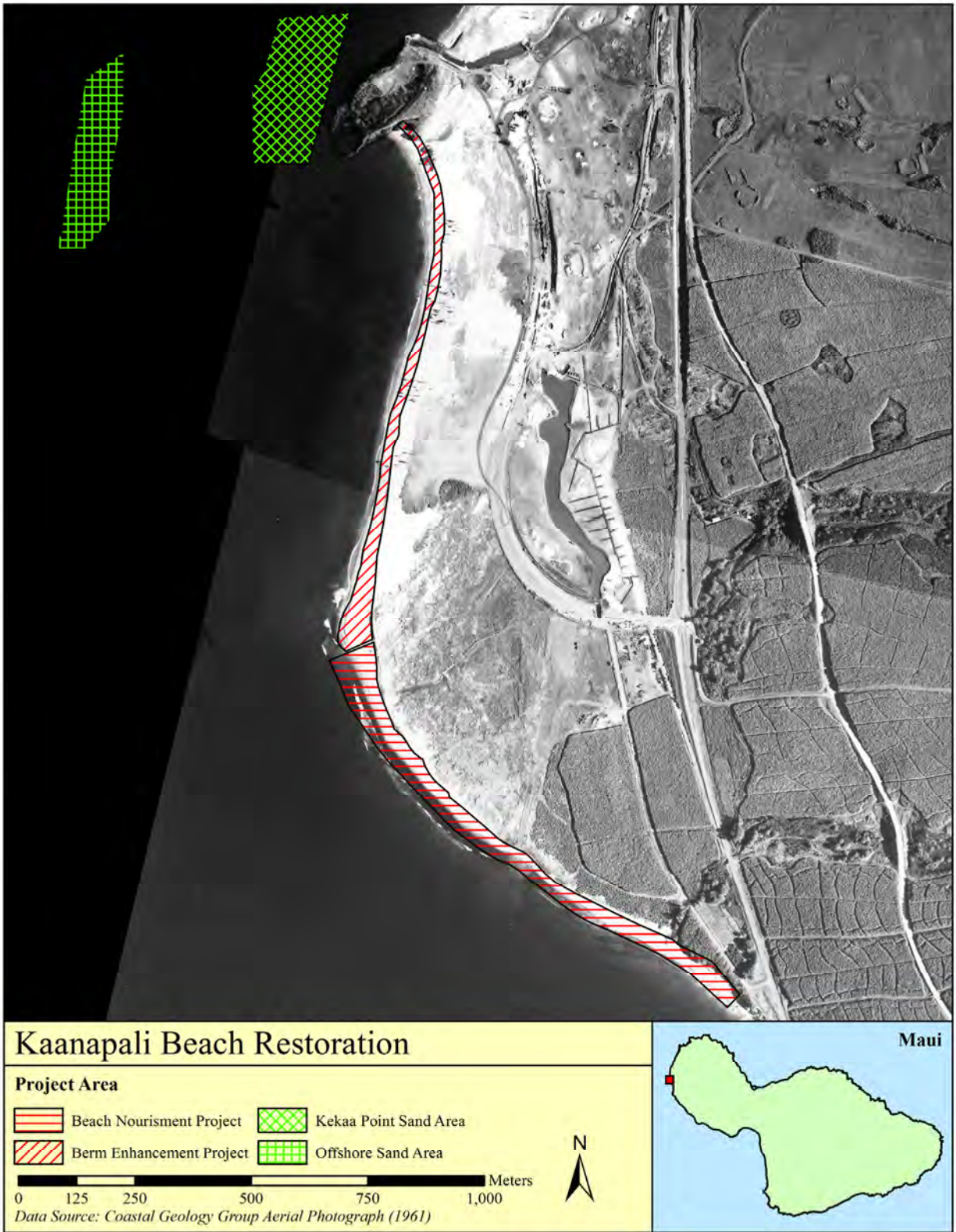


Figure 3. The project area projected onto a 1961 orthographic photograph of the Kā'anapali shoreline. Note that the land adjacent to the dynamic beach was being cleared for resort construction at this time.

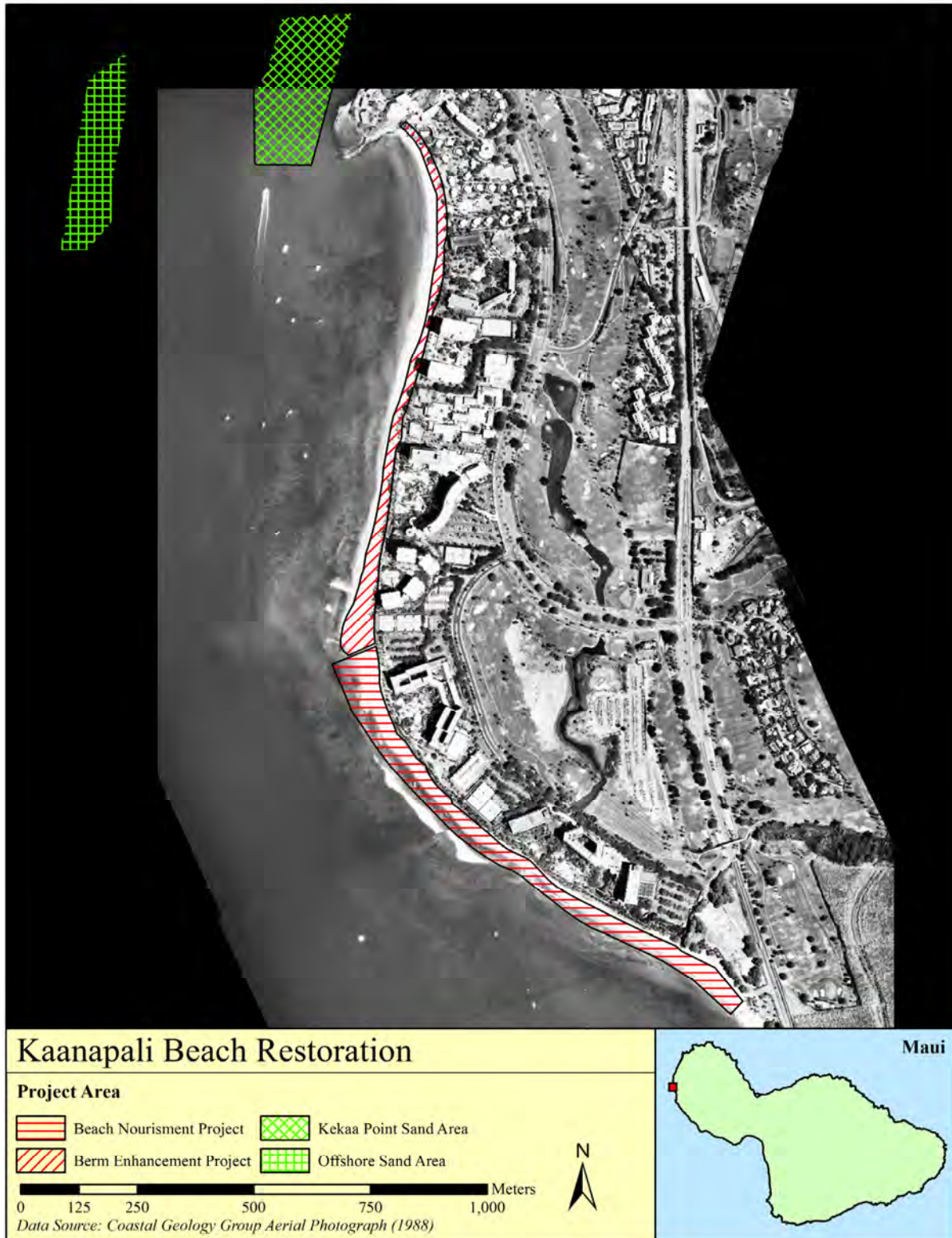
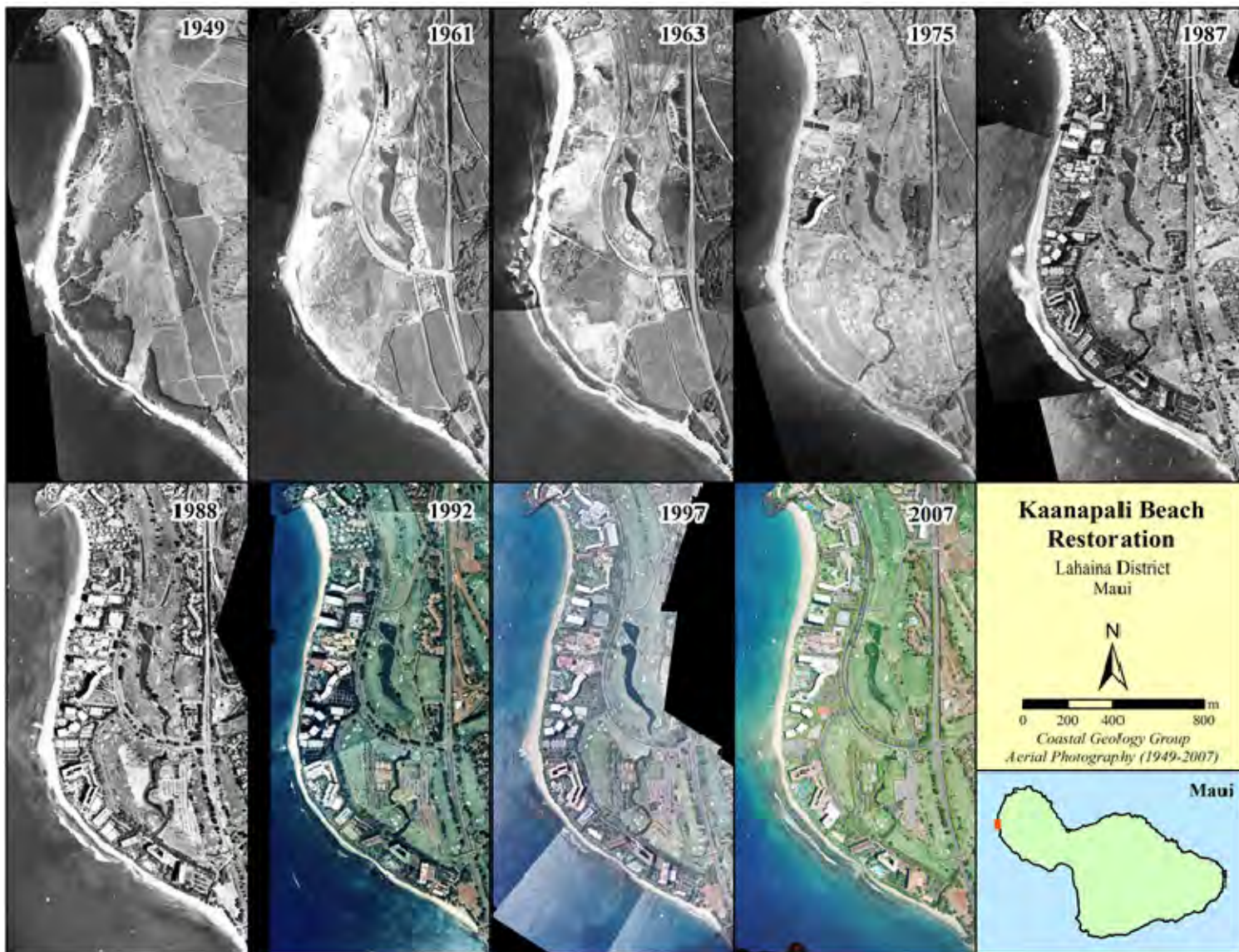


Figure 4. The project area projected onto a 1988 orthographic photograph of the Kā'anapali shoreline. The proposed beach restoration project will restore the dynamic beach to roughly the position visible in the photo.



PREHISTORY AND HISTORY

The monumental basalt cliff Pu‘u Keka‘a is the only location within the project area that is mentioned in Hawaiian tradition. Pu‘u Keka‘a—roughly translated as “hill of rumbling thunder” (Pukui et al. 1974), and known alternatively as Black Rock since the early post-Contact period—is a notable referent within traditional Hawaiian folklore. The demigod Maui, the protagonist of many Hawaiian legends, reputedly transformed one of his enemies into a black rock somewhere in the Kā‘anapali area, often interpreted to be Pu‘u Keka‘a (Westervelt 1910; Fornander 1919a). The legendary figure Wahine-o-Manua (“abused woman” or “fighting woman”) is said to have rested near Pu‘u Keka‘a while being led away from her abusive husband by a *pūeo* (owl) god (Thrum 1905).

Traditional Hawaiian religion sanctifies Pu‘u Keka‘a as a *leina a ka uhane*, or a leaping place for departed souls, where deceased spirits passed westward—in the direction of the setting sun—into the afterlife (Fornander 1919b); this function has been similarly attributed to westward-facing geographical features on other islands, such as Ka‘ena Point on O‘ahu. This association with death and the afterlife might have attracted the large number of burials and cemeteries on and around Pu‘u Keka‘a that have been noted in archaeological and historical records (Dobyns and Allen-Wheeler 1982; Fredericksen 1998; Fredericksen 2008; McGerty and Spear 2002; Neller 1982; Perzinski and Dega 2009; Rotunno-Hazuka and Pantaleo 2003). Two historical burials on Pu‘u Keka‘a have been specifically described: the *ali‘i* (chief) Kauhi‘aimokuakama was buried on the cliff after his defeat and death at the Battle of Koko O Nā Moku (which occurred around 1738 across a large stretch of the west Maui coast [Fornander 1880]); and the *hapa haole* (part-white) whaler Keokiko was buried in a white tomb atop the cliff that became a well-known landmark during the late 19th and early 20th centuries (Fornander 1919b; United States of America Department of Commerce 1919). Pu‘u Keka‘a consequently acquired a reputation as a haunted place, where local legends warned that visitors travelling alone to the area would mysteriously die (Fornander 1919b). Kahekili—the last ruler of an independent Maui polity before Kamehameha I unified the islands—utilized the spiritual symbolism of the cliff to powerfully demonstrate his own physical and political potency; by diving off the side of Pu‘u Keka‘a and climbing back to the top unharmed, he proved to the people that he was descended from the gods, and was therefore a legitimate *ali‘i nui*, or high chief (Pukui and Elbert 1986).

During the early 1800s, when nearby Lāhainā served as a popular port for whalers, Pu‘u Keka‘a was named Black Rock by Westerners, but even among foreigners it retained its reputation as a haunted area (Ashdown 1963). During the privatization of land in the Kingdom of Hawai‘i following the Māhele of 1848, only one unawarded *hoa‘āina* (native tenant) claim was made for a parcel in Hanaka‘ō‘ō Ahupua‘a (Helu 7559, near Hahakea Gulch east of the project area), perhaps implying that by the mid-19th century the *ahupua‘a* (including land in the vicinity of the project area) was sparsely populated (Lee-Greig and Hammatt 2014). Migration away from Lāhainā and West Maui, spurred by the decline of the whaling industry from the 1860’s onward, is noted in census records: the population in the Lāhainā District (which includes the project area) was 4,833 in 1853, but by 1896, it had declined to 2,398 (Schmitt 1977).

In 1863, the Pioneer Mill Company began development of a sugar cane plantation along the western coast of Maui, which would eventually extend from Olowalu in the south, through Lāhainā (where the sugar mill was located), to Māhinahina north of Kā‘anapali. The Kā‘anapali Landing, built to the north of Pu‘u Keka‘a (outside the project area), served as the plantation’s main port and storage facility. A 1918 map of the Pioneer Mill Company lands does not indicate plantation-related construction within the project area (Fig. 6).

fields
project

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The Kā'anapali area has been extensively surveyed, primarily in connection with commercial development in the vicinity; Lee-Greig and Hammatt (2014) summarize previous archaeological investigations near the project area. Table 1 is based on this source, with additional reports appended to the original list. Figure 7 shows the locations of the previous studies. Figure 8 shows the general locations of in situ human burials identified by the studies; the locations of isolated human skeletal remains are not displayed. Figure 9 is a sketch map of Hahakea Beach Park—now Hanaka'ō'ō Park—from Neller (1982), showing the locations of archaeological surface features near the park shoreline where beach restoration activities are planned.

No archaeological sites have been identified within the project area itself. This is plausible for several reasons: the Kā'anapali shoreline is seasonally overturned by wave and tidal action; the beach has been subject to severe erosional events related to Kona storms and hurricane waves for at least the last 60 years (Eversole 2002); it has also been highly trafficked by visitors since the adjacent vacation resorts were built on land to the east of the beach in the 1960s. Given these conditions, any prehistoric or historic resources formerly located on the beach would almost certainly have been destroyed long ago. The offshore sand areas—ignoring the obvious logistical difficulty involved in surveying the underwater landscape—are highly unlikely to have ever contained in situ cultural resources, and would additionally be subject to the same volatile environmental forces as the beach itself.

Surface and subsurface archaeological resources have, however, been periodically identified within the static areas inland of the dynamic beach. Cultural deposits in these areas are typically found below the modern fills associated with resort construction, in buried Jaucas sand lenses that represent the truncated and buried prehistoric-historic landscape. In situ human burials dating from the pre-Contact and early post-Contact eras are the predominant archaeological resource identified in previous investigations, along with isolated human skeletal elements and grave goods associated with burials (such as *lei niho palaoa* [Perzinski and Dega 2009]) both in situ and displaced. Two factors contribute to the preponderance of burials along the Kā'anapali shoreline: sand dunes were commonly used as burial grounds during the pre-Contact and early post-Contact periods; and perhaps more crucially, the dominant landscape feature, Pu'u Keka'a, is regarded in traditional Hawaiian culture as a *leina a ka uhane*, or a leaping off place for souls, where the spirit of a deceased person follows the setting sun into the afterlife.

Table 1. Previous Archaeology in the Vicinity of the Project Area.

Author/Date	Level of Work	Results	Location
Hammatt 1978 (Ching 1979)	Archaeological assessment: one backhoe test trench; examination of an existing sewer line trench	Original surface morphology was deemed excessively altered. No cultural remains or deposits were identified.	Hyatt Regency Maui Resort & Spa (Marriott's Maui Ocean Club)
Keau 1981	Archaeological reconnaissance	No new pre-Contact cultural remains were found, but a possible post-Contact habitation site and associated artifacts were noted. Cultural items previously identified in the area are described, including the Grinding Stone artifacts (SIHP -1204). Further subsurface testing is recommended.	Hanaka'ō'ō (Hahakea Beach) Park
Dobyns and Allen-Wheeler 1982	Archaeological monitoring	Two in situ burials, fragmentary skeletal elements, and basalt flakes were found during construction excavation.	Kaanapali Alii Resort
Neller 1982	Archaeological reconnaissance	The Hanaka'ō'ō grinding stones (SIHP -1204), the Chinese cemetery, and the rock crusher ruins were the only cultural properties identified in the survey area. Monitoring of construction activities near the properties is recommended.	Hanaka'ō'ō (Hahakea Beach) Park
Rosendahl 1986	Archaeological reconnaissance	Most of the project area had been previously developed, except for portions of the barren coastal flats and the exposed faces of Pu'u Keka'a. No cultural remains or deposits were identified.	Sheraton Maui Resort & Spa
Graves 1993	Archaeological assessment: fifteen backhoe test trenches were excavated on the beach; no testing on Pu'u Keka'a	No cultural remains or deposits were identified.	Sheraton Maui Resort & Spa
D. L. Fredericksen 1998	Archaeological monitoring	Eight partial or complete in situ burials, nine random finds of human skeletal elements, and other cultural items were found during construction excavation. Most of the finds were associated with two historic cemeteries on Pu'u Keka'a, which were largely removed during construction of the original hotel in the 1960s.	Sheraton Maui Resort & Spa
McGerty and Spear 2002	Archaeological assessment: four backhoe test trenches.	No cultural remains or deposits were identified. A recently reported burial (SIHP -4985) within the same project area is noted.	Marriott's Maui Ocean Club

Table 1. Previous Archaeology in the Vicinity of the Project Area (continued).

Author/Date	Level of Work	Results	Location
Rotunno-Hazuka and Pantaleo 2003	Archaeological monitoring	Human skeletal remains were inadvertently encountered during unmonitored construction activity. Additional skeletal elements from a single individual were later recovered from a disturbed context.	Marriott's Maui Ocean Club
Paraso and Dega 2006	Archaeological assessment: eleven backhoe test trenches	No cultural remains or deposits were identified within the project area. Several possible cultural strata were identified by color outside of the study area. A burial site (SIHP -4985) located at the Marriott's Maui Ocean Club is noted.	Hyatt Regency Maui Resort & Spa
Cordle and Dega 2007	Archaeological monitoring	No cultural remains or deposits were identified.	Marriott's Maui Ocean Club
Fredericksen 2008	Archaeological mitigation of a burial site (SIHP - 6576)	Human skeletal elements were inadvertently encountered during unmonitored construction activity. The remains were likely from an in situ burial displaced by construction excavation.	Hanaka 'ō'ō (Hahakea Beach) Park
Perzinski and Dega 2009	Archaeological monitoring	Seven in situ burials and over 2,700 isolated skeletal elements (SIHP -6279 and SIHP -6586) were found during construction excavation.	Marriott's Maui Ocean Club
Dagher and Dega 2014	Archaeological assessment	No cultural remains or deposits were identified.	Ka'anapali Beach Hotel
Lee-Greig and Hammatt 2014	Archaeological assessment: eighteen backhoe test trenches were excavated in locations likely to contain traditional Hawaiian cultural deposits, as determined by a Ground Penetrating Radar (GPR) survey	No cultural remains or deposits were identified.	The Westin Maui Resort & Spa, Ka'anapali

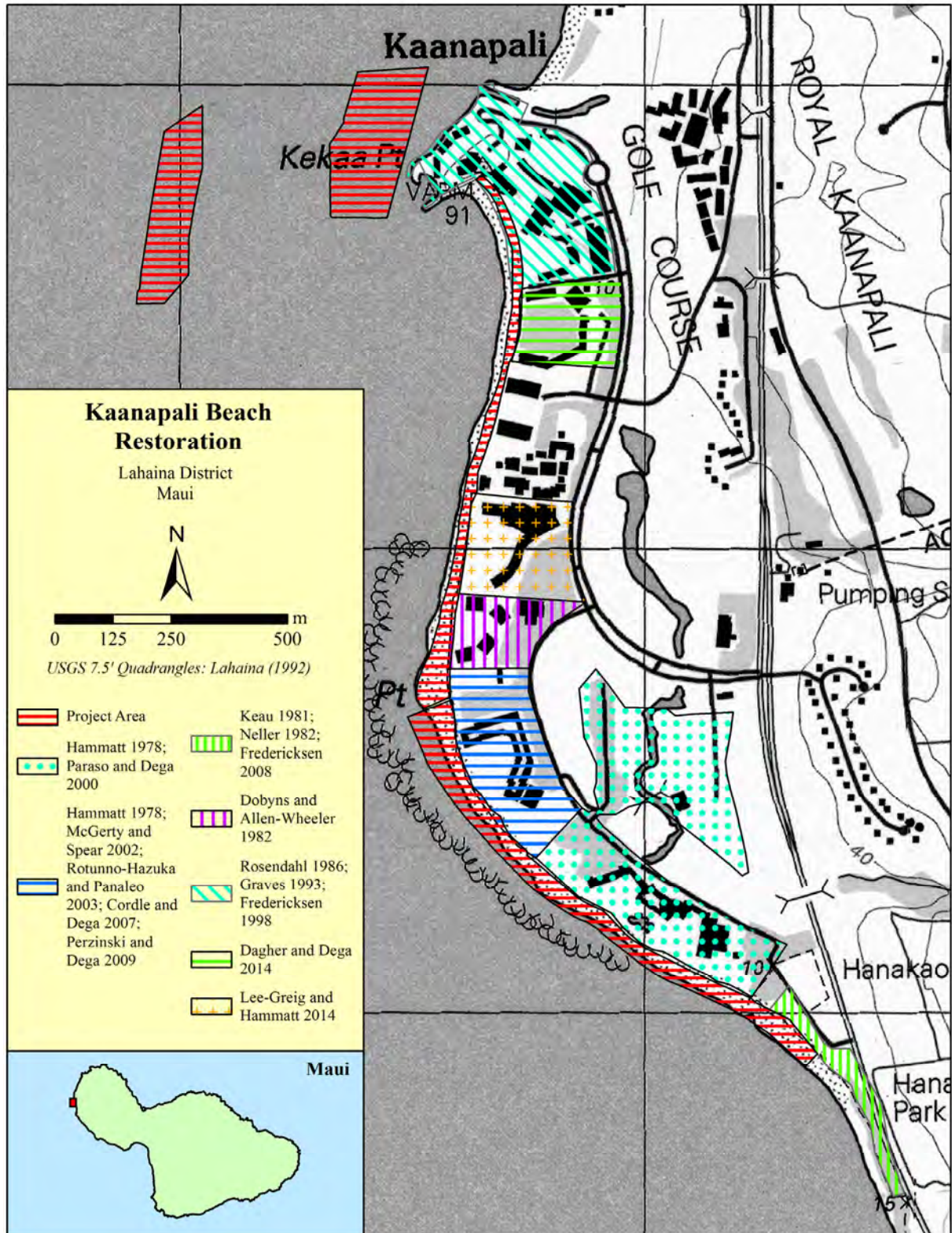


Figure 7. Locations of previous archaeological studies in the vicinity of the project area.

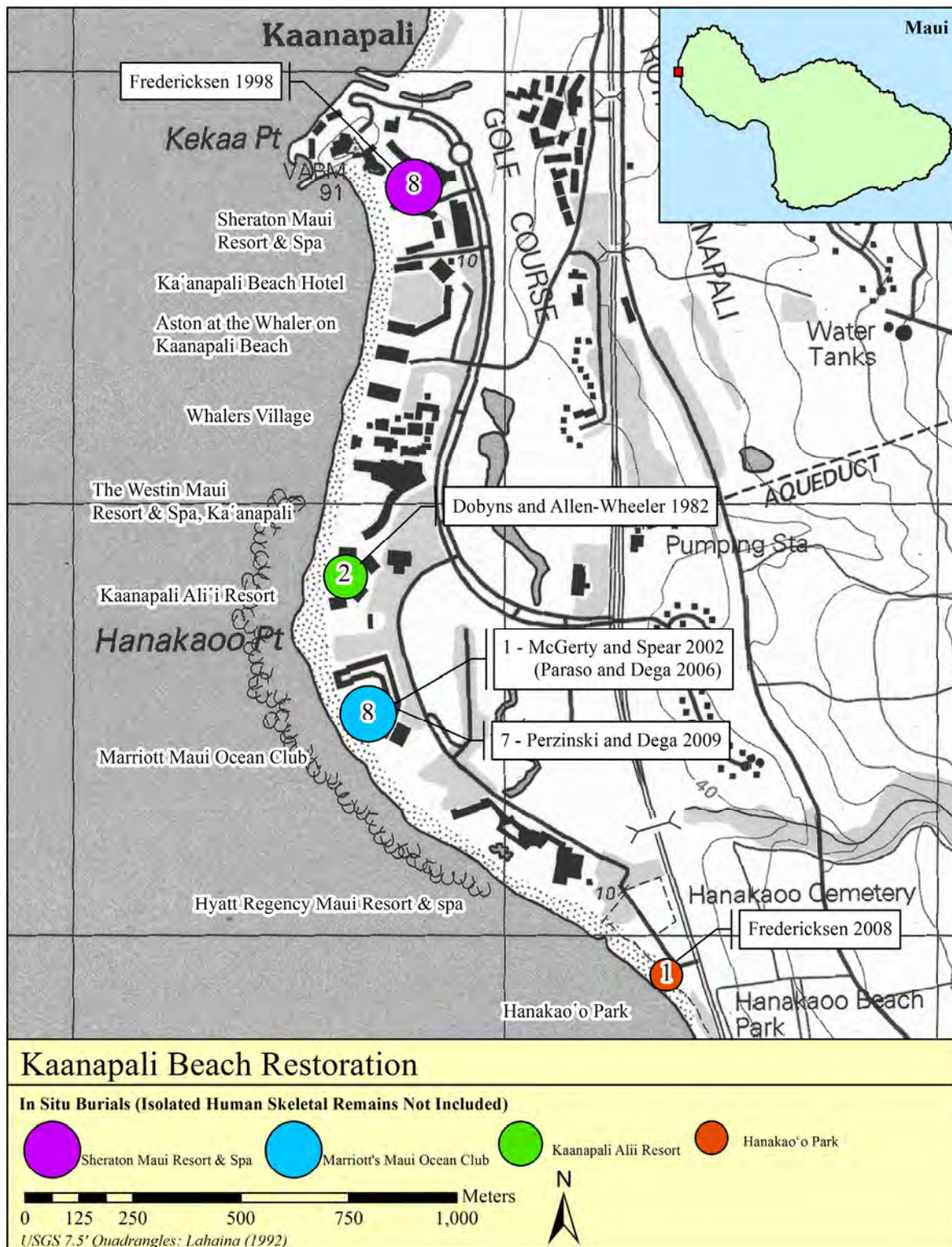
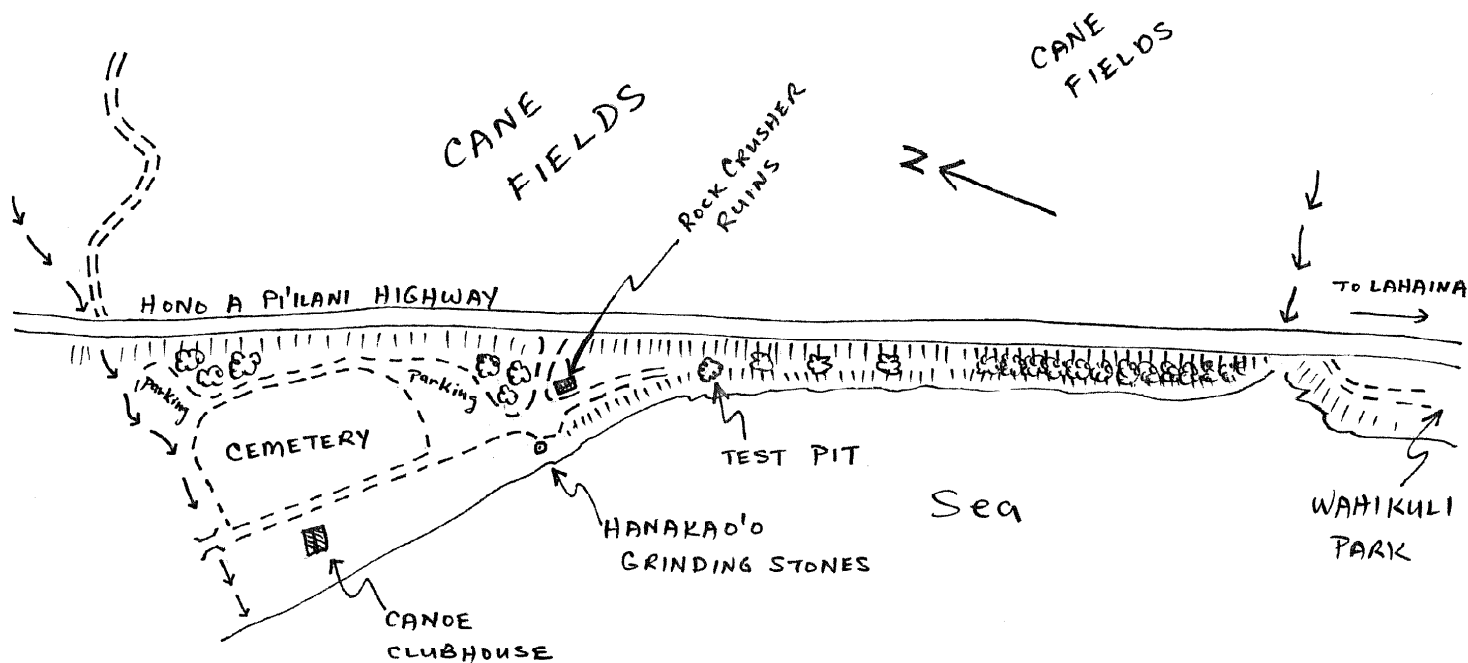


Figure 8. The general locations of in situ human burials identified near the project area, according to previous archaeological studies. Isolated human skeletal elements are not depicted in the figure. Each colored circle schematically represents the quantity of in situ burials found in an area; the exact total is indicated by the number superimposed on the circle.



HAHAKEA BEACH PARK

SKETCH MAP (NOT TO SCALE)

22 MARCH 1982

E. NELLER

Figure 9. A sketch map of Hahakea Beach Park—now Hanaka'ō'ō Park—from Neller (1982), showing the locations of surface archaeological features near the park shoreline.

III. CONCLUSION AND RECOMMENDATIONS

No historic properties have been previously documented within the Kā'anapali Beach Restoration project area as it is currently delineated (see Fig. 1). No cultural places and practices have yet been recorded within the project area, although this preliminary finding may change as research for the CIA progresses.

If project construction activities are confined to the dynamic Kā'anapali Beach shoreline and offshore sand areas, archaeological resources are unlikely to be impacted during ground-disturbing work, as erosional, tidal, and anthropogenic impacts during the modern era have very likely destroyed any in situ properties once present within the active beach. If project construction activities extend into the static areas inland of the dynamic beach, historic properties are more likely to be encountered and/or impacted. Surface archaeological features have been documented and preserved within Hanaka'ō'ō Park (adjacent to the project area), and construction excavations within the resort properties along the eastern edge of the project have periodically exposed prehistoric and historic in situ human burials, isolated human skeletal elements, and remnant cultural deposits (Paraso and Dega 2006) below the modern construction fills.

Recommendations to mitigate the impact of construction activities on any historic properties within the project area will be developed through consultation with the SHPD.

REFERENCES

Ashdown, Inez

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