



# Appendix 5: Cultural Impact Assessment

Monica and Kevin Barry (landowners)  
TMK: (3) 1-5-059:059

*Ka Pa'akai* Analysis

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At the request of Monica and Kevin Barry (landowners), in support of a district boundary amendment application being submitted to the State of Hawai'i Land Use Commission (LUC), ASM Affiliates (ASM) conducted a *Ka Pa'akai O Ka 'Aina* analysis of a 0.51-acre parcel (TMK: (3) 1-5-059:059) located in Hawaiian Paradise Park (HPP), Kea'au Ahupua'a, Puna District, Island of Hawai'i (Figures 1, 2, and 3). The landowner is seeking to reclassify the subject parcel from Conservation land to Agricultural land (Figure 4).

Article XII, Section 7 of the Hawai'i Constitution obligates the State and its agencies, such as the LUC, "to protect the reasonable exercise of customarily and traditionally exercised rights of native Hawaiians to the extent feasible when granting a petition for reclassification of district boundaries." (*Ka Pa'akai O Ka 'Aina v Land Use Commission*, 94 Hawai'i 31, 7 P.3d 1068 [2000]). Under Article XII, Section 7, the State shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by *ahupua'a* tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights. In the context of land use permitting, these issues are commonly addressed when the LUC is asked to approve a petition for the reclassification of district boundaries, as such an action most often initiates activities that precede initial intensive development.

In the September 11, 2000 Hawai'i Supreme Court landmark decision (*Ka Pa'akai O Ka 'Aina v Land Use Commission*), an analytical framework for addressing the preservation and protection of customary and traditional native practices specific to Hawaiian communities was created. The court decision established a three-part process relative to evaluating such potential impacts: first, to identify whether any valued cultural, historical, or natural resources are present; and identify the extent to which any traditional and customary native Hawaiian rights are exercised; second, to identify the extent to which those resources and rights will be affected or impaired by the proposed action; and third, to specify the feasible action, if any, to be taken by the regulatory body to reasonably protect native Hawaiian rights if they are found to exist.

In an effort to identify whether any valued cultural, historical, or natural resources are present within the proposed project area, and identify the extent to which any traditional and customary native Hawaiian rights are, or have been, exercised (the first part of the analytical process); historical archival information was investigated, and prior cultural studies that included consultation and oral-historical interviews were reviewed. A summary of this analysis is presented below.

### **Culture-Historical Background for Kea'au**

The subject parcel is located within Kea'au Ahupua'a, a traditional land unit of the Puna District, which is one of six major districts on the island of Hawai'i. The *ahupua'a* of Kea'au is one of fifty traditional land divisions found in the *moku* (district) of Puna on the eastern shores of Hawai'i Island. The Hawaiian proverb "Puna, mai 'Oki'okiaho a Māwae" describes the extent of the district spanning from 'Oki'okiaho the southern boundary, to Māwae, the northern boundary. In the book, *Native Planters in Old Hawaii*, Handy and Handy (1991) described Puna as an agriculturally fertile land that has repeatedly been devastated by lava flows. Writing during the 1930s, they relate that:

The land division named Puna—one of the six chiefdoms of the island of Hawaii said to have been cut ('oki) by the son and successor of the island's first unifier, Umi-a-Liloa—lies between Hilo to the north and Ka'u to the south, and it projects sharply to the east as a great promontory into the Pacific. Kapoho is its most easterly point, at Cape Kumukahi. The uplands of Puna extend back toward the great central heights of Mauna Loa, and in the past its lands have been built, and devastated, and built again by that mountain's fires. In the long intervals, vegetation took hold, beginning with miniscule mosses and lichens, then ferns and hardier shrubs, until the uplands became green and forested and good earth and humus covered much of the lava-strewn terrain, making interior Puna a place of great beauty. . .

...One of the most interesting things about Puna is that Hawaiians believe, and their traditions imply that this was once Hawaii's richest agricultural region and that it is only in relatively recent time that volcanic eruption has destroyed much of its best land. Unquestionably lava flows in historic times have covered more good gardening land here than in any other district. But the present desolation was largely brought about by the gradual abandonment of their country by Hawaiians after sugar and ranching came in... (Handy and Handy 1991:539-542)

As suggested in the above passage, Puna was a region famed in legendary history for its associations with the goddess Pele and god Kāne (Maly 1998). Because of the relatively young geological history and persistent volcanic activity, the region's association with Pele has been a strong one. However, the association with Kāne is perhaps more ancient. Kāne, ancestor to both chiefs and commoners, is the god of sunlight, fresh water, verdant growth, and forests (Pukui 1983). It is said that before Pele migrated to Hawai'i from Kahiki, there was "no place in the islands . . . more beautiful than Puna" (Pukui 1983:11). Contributing to that beauty were the groves of fragrant *hala* and forests of 'ōhi'a lehua for which Puna was famous, and the inhabitants of Puna were likewise famous for their expertise and skill in *lauhala* weaving.

In Precontact and early Historic times the people of Puna lived primarily in small settlements along the coast with access to fresh water, where they subsisted on marine resources and agricultural products. According to McEldowney (1979), six coastal villages were traditionally present between Hilo and Cape Kumukahi (Kea'au or Hā'ena, Maku'u, Waiakahiula, Honolulu, Kahuwai, and Kula or Koa'e). The current study area is located between Hā'ena and Maku'u Villages. As described by McEldowney, each of the villages:

...seems to have comprised the same complex of huts, gardens, windbreaking shrubs, and utilized groves, although the form and overall size of each appear to differ. The major differences between this portion of the coast and Hilo occurred in the type of agriculture practiced and structural forms reflecting the uneven nature of the young terrain. Platforms and walls were built to include and abut outcrops, crevices were filled and paved for burials, and the large numbers of loose surface stones were arranged into terraces. To supplement the limited and often spotty deposits of soil, mounds were built of gathered soil, mulch, sorted sizes of stones, and in many circumstances, from burnt brush and surrounding the gardens. Although all major cultigens appear to have been present in these gardens, sweet potatoes, ti (*Cordyline terminalis*), noni (*Morinda citrifolia*), and gourds (*Lagenaria siceraria*) seem to have been more conspicuous. Breadfruit, pandanus, and mountain apple (*Eugenia malaccensis*) were the more significant components of the groves that grew in more disjunct patterns than those in Hilo Bay. (McEldowney 1979:17)

*Ka Mo'olelo O Hi'iakaikapoliopole* (The story of Hi'iakaikapoliopole), initially published in the Hawaiian language newspaper *Ka Na'i Aupuni* between the years 1905-1906 (Ho'oulumāhiechie 2006), tells a story of Pele and her siblings that takes place at Hā'ena, located to the northwest of subject parcel. The story relates that after settling on Hawai'i Island, Pele and her siblings ventured down to Hā'ena in Kea'au to bathe in the sea. While there, Pele was overcome with the desire to sleep. She informed her youngest sister, Hi'iaka not to allow any of their siblings to awaken her. Hi'iaka consented to her sister's commands. In her dream state, Pele followed the sound of a *pahu* (drum), which carried her spirit to the island of Kaua'i, where she met a striking man named Lohi'au. The two fell madly in love, but since Pele was in her spirit form, she made it clear to Lohi'au that she must return to Hawai'i Island. Pele's long sleep was cause for concern and although tempted to awaken her sister, Hi'iaka held true to her sister's commands and let her sleep.

When she awoke, Pele called upon each of her sisters and made a proposition, asking which one of them would fetch her dream lover Lohi'au from Kaua'i. Knowing Pele's tempestuous temper, each feared possible repercussions and refused to go, except for her youngest sister, Hi'iaka. Pele demanded that Hi'iaka travel to Kaua'i to fetch Lohi'au, and sent her on her way with strict instructions; Hi'iaka was not to take him as her husband, she was not to touch him, and she was to take no longer than forty days on her journey. While Hi'iaka agreed to her sister's demands, she realized

that in her absence, Pele would become incensed with a burning and vehement fury and destroy whatever she desired. So Hi'iaka set forth two stipulations of her own; her beloved 'ōhi'a lehua grove in Puna was to be spared from destruction, and Pele was to protect her dear friend Hōpoe in her absence. In this version of the story, Hōpoe is described as a young girl from Kea'au who was skilled at riding the surf of Hā'ena, and who was the one that taught Hi'iaka the art of *hula*. Pele agreed to Hi'iaka's requests, and Hi'iaka departed on her journey to retrieve Pele's lover. In a sympathetic act, Pele bestowed supernatural powers upon Hi'iaka so that she would be protected against the dangers she would undoubtedly meet along the way.

Hi'iaka hadn't ventured very far on her journey when she realized that the volcano had begun to smoke thickly, trailing lava towards Hōpoe's home of Kea'au. It was not long before the smolder of smoke burst into a scorching fire. Despite being filled with a sense of dread, sensing that her sister had betrayed her promise, Hi'iaka continued her journey. At last, Hi'iaka found Lohi'au, unfortunately, all that remained of him was his lifeless corpse. Keenly aware that she could not return Lohi'au to her sister in such a state, Hi'iaka used her healing powers to return his wandering spirit back into his body.

By this time, because of the amount of time taken by Hi'iaka, Pele was furious. She shook the earth with great ferocity and heaved her lava in a torrent of devastation, annihilating Hi'iaka's 'ōhi'a lehua forest, obliterating all of Puna, and finally consuming Hōpoe as she lingered by the sea. In her death, Hōpoe was transformed into a stone at the coast of Kea'au; a stone, carefully balanced alongside the sea, that would dance gracefully when touched by the surf. Hi'iaka, her heart bitter with her sister's betrayal, brought Lohi'au back to Puna as she swore she would. There, enraged by her sister's spiteful acts, Hi'iaka fought a brutal battle with Pele. Fearing that the two sisters would destroy the entire island, the elder gods finally intervened and ended the battle.

A map prepared in 1930, and filed with Land Court Application 1053 (Figures 5), labels the coastal lands on the eastern side of Kaloli Point as "Hopoe," suggesting that the events of *Ka Mo'olelo O Hi'iakaikapoliopole* (Ho'oulu māhiehie 2006) may have occurred in the general vicinity of the subject parcel. Maly (1999:138) indicated that "Hōpoe embodied the *lehua* forest of Kea'au that extended across the flats that make up what is now called Kaloli Point." The stone believed to be Hi'iaka's companion, Hōpoe, was moved by a *tsunami* in 1946 (Maly 1999:134; Pukui et al. 1974:52), and no longer dances along the shore of Kea'au Ahupua'a.

In 1823, British missionary William Ellis and members of the American Board of Commissioners for Foreign Missions (ABCFM) toured the island of Hawai'i seeking out communities in which to establish church centers for the growing Calvinist mission. Ellis recorded observations made during this tour in a journal (Ellis 2004). Walking southwest to northeast along the southeastern shore of the District of Puna with his missionary companions Asa Thurston and Artemas Bishop, Ellis' writings present descriptions of residences and practices in the district, and provide the first written description of Kea'au (or Hā'ena) Village and its environs:

...The country was populous, but the houses stood singly, or in small clusters, generally on the plantations, which were scattered over the whole country. Grass and herbage were abundant, vegetation in many places luxuriant, and the soil, though shallow, was light and fertile.

Soon after 5 P.M., we reached Kaau [Kea'au], the last village in the division of Puna. It was extensive and populous, abounding well with cultivated plantations of taro, sweet potatoes, and sugar-cane, and probably owes its fertility to a fine rapid stream, which, descending from the mountains, runs through it into the sea. (Ellis 2004:296)

When Ellis visited Puna, less than fifty years after the arrival of the first Europeans, the population of Hawai'i was already beginning to decline (Maly 1998). By the mid-nineteenth century, the ever-growing population of Westerners in the Hawaiian Islands forced socioeconomic and demographic changes that promoted the establishment of a Euro-American style of land ownership, and the *Māhele 'Āina* (Land Division) of 1848 became the vehicle for determining the ownership of native lands within the island kingdom. During the *Māhele*, native tenants could also claim, and acquire title to, *kuleana* parcels that they actively lived on or farmed. As a result of the *Māhele*, Kea'au Ahupua'a was awarded to William C. Lunalilo (the future, and first elected, monarch of the Hawaiian Islands) as *āpana* (parcel) 16 of Land Commission Award 8559B. Kea'au was one of sixty-five *ahupua'a* maintained by Lunalilo following the *Māhele*. In Puna, very few claims for *kuleana* were submitted. Maly (1998:37) notes that, with the exception of the islands of Kaho'olawe and Ni'ihau, no other land division of comparable size, had fewer claims for *kuleana* from native tenants than the district of Puna. Only two *kuleana* (LCAw. 2327 to Barenaba and LCAw. 8081 to Hewahewa) were awarded within Kea'au Ahupua'a, neither of which is in close proximity to the current study area (Maly 1999).

Although exposed to missionary presence since the 1820s, early pre-*Māhele* narratives portray Puna as a district still heavily rooted in tradition, being only marginally impacted by foreign influence. While earlier narratives describe the region as densely populated with settlement locales present at both coastal and inland settings, subsequent accounts reveal a sharp decline in the native population throughout the nineteenth century, with Hawaiians maintaining

marginalized communities outside of the central population centers. During the middle part of the nineteenth century, Puna's population declined by more than half from 4,800 in 1835 to 2,158 in 1860 (Anderson 1865), and continued decreasing to a mere 1,043 by 1878, reaching an unsurpassed low of 944 by 1884 (Thrum 1885 and 1886). Lifeways for the Hawaiian population still residing in Puna underwent drastic changes during the second half of the nineteenth century, as the traditional villages and subsistence activities were mostly abandoned.

By the beginning of the twentieth century, Puna was on the verge of major economic growth, spurred by the booming sugar and lumber industries. Increasing urbanization of Puna, and particularly Kea'au, were initially propelled by the sale of the *ahupua'a* to William Herbert (W.H.) Shipman, J. Eldarts, and Samuel Damon by the King Lunalilo Estate in 1882. Campbell and Ogburn (1992) relate that with land leased from Shipman, a small group of investors (B.F. Dillingham, Lorrin A. Thurston, Alfred W. Carter, Samuel M. Damon) created and developed the 'Öla'a Sugar Company, which operated on lands *mauka* of the current study area between 1899 and 1984. The current study area was too rocky for the cultivation of sugarcane, and was used by the Shipman family as ranch/grazing land until the late 1950s, when it subdivided into the Hawaiian Paradise Park subdivision and sold in many small pieces to individual owners.

### Identification of Cultural, Historical or Natural Resources

Records on file at DLNR-SHPD indicate that twenty-two parcels within the Hawaiian Paradise Park subdivision (totaling 22 acres) have been previously surveyed for archaeological sites. Twenty-one parcels were surveyed by Haun and Henry (2013a, 2013b, 2013c) and the twenty-second parcel was surveyed by Higelmire and Lash (2017). Each of these studies, conducted at locations inland of the current study area, reported negative findings with regards to the presence of archaeological sites and features.

A survey of coastal lands within Kea'au Ahupua'a, conducted by Lass (1997) along the route of the Old Government Road to the northwest of HPP, identified fifteen archaeological sites including the Old Government Road/Puna Trail (Site 50-10-36-21273), which once passed inland of the current study area (Figure 10), along with numerous rock walls, enclosures, rock piles, modified bedrock features, and several concrete structures (Sites 50-10-36-21259 to 21273) (Figure 6). These sites were interpreted as having been used for Precontact to early Historic Period habitation, burial, and agricultural purposes, Historic ranching purposes, and World War II-era coastal defense purposes. Although not previously recorded, it is likely that similar sites were once common along the coast of HPP as well, prior to the development of the subdivision's roads and lots.

A field inspection of the subject parcel was conducted on June 6, 2018 by Matthew R. Clark, M.A. of ASM Affiliates. The field inspection revealed that no archaeological features are present on the surface of the parcel, and determined that the likelihood of encountering subsurface resources are extremely remote given the exposed bedrock ground surface (Clark 2018). Although no cultural or historical sites were identified during the archaeological survey, the current subject parcel is situated along the Kaloli Point coastline, which is still accessed for subsistence marine resource collection including but not limited to fishing and the collection of *'opihi* (*Cellana sp.*). An unpaved road located at the north end of Paradise Ala Kai Street provides pedestrian access to the coast where fishermen can walk south along the coastline. A portion of this unpaved road is accessible using a four-wheel drive vehicle.

### Previous Ethnographic Studies

Kepā Maly in 1999 completed archival-historical research, consultation, and a limited site preservation plan for the Kea'au section of the Puna Trail-Old Government Road for *Nā Ala Hele*, the Hawai'i Statewide Trail and Access System. Maly's study identified traditions and practices associated with Kea'au Ahupua'a including travel along the Puna Trail and he identified significant features along the coastal landscape. The oral history component focused on recording the accounts of four individuals who utilized the trail and were knowledgeable about the coastal portion of Kea'au. Maly (1999) indicated that the Puna Trail evolved from the trail system known as the *ala loa*, which passed through the Puna District, and connected to the various districts on the island.

In 1998, Maly conducted an interview with John Ka'iewe Jr. who identified other old villages in the coastal section of Kea'au that were not noted by McDowd (1979), namely Pākī and Keauhou, which are located between Kaloli Point and Hā'ena. Mr. Ka'iewe described the cultivating grounds for these villages being between the shore and the Old Government Road as well as on the *mauka* side of the road. Mr. Ka'iewe also described gathering marine resources in this area including *'opihi*, *wana*, and *limu*. Following World War II, Mr. Ka'iewe specified that access had become restricted on the Old Government Road and that "the section of the road from Kaloli to Hā'ena was opened up for military vehicles" (ibid.:133). The presence of burials along the coast between Kea'au to Maku'u were also noted by Mr. Ka'iewe.

Roy Shipman Blackshear, a descendant of William H. and Mary Shipman was also interviewed by Maly (1999). Mr. Blackshear described traveling along the Old Government Road and coastal lands of Kea'au. With respect to coastal sites, Mr. Blackshear described the fishpond and *kū'ula* (fishing shrines) stones at Kea'au Bay, a possible burial site on the *mauka* side of the Puna Trail near the Hōpoe vicinity, and old house sites and walls located along the portion of the trail extending from Hā'ena to Pākī and Keauhō. Mr. Blackshear also noted an old *heiau* and burial sites crossed by the Puna Trail in Waikahekahe Nui.

As part of this same study, Maly (1999) conducted an interview with a father and son, Albert Haa Sr. and Albert Haa Jr, who shared their experiences in traveling along the entire Kea'au shoreline for fishing. Mr. Haa described traveling along the shoreline trail from Hā'ena to Pākī instead of using the old Government Road. Mr. Haa also noted the presence of a large coastal cave, however, he did not specify its location.

### **Findings and Conclusions**

In summary, the cultural-historical, archaeological, and ethnographic studies reviewed for this analysis revealed that the current subject parcel is located in the vicinity of Hōpoe; a place described in the epic account of *Pele and Hi'iaka*. From this account, we learn that Hōpoe was the name of Hi'iaka's companion and also the name of her beloved 'ōhi'a grove, both of which were destroyed by her sister Pele. On a mythic level, this Hawaiian legendary account explains the major transformation of the Puna landscape through the interaction of gods and goddesses associated with the islands' volcanic and geological forces. Pukui and Elbert (1986:82) defined *hōpoe* as "fully developed, as a lehua flower." These description appear to describe the existence of a famed 'ōhi'a grove that once thrived in this general area but was eventually consumed by Pele. It is interesting to note that the lava flow in the study area dates between 200 and 700 years old (Sherrod et al. 2007).

With respect to previously identified archaeological features, transportation related sites such as trails and historic roads are located to the west (*mauka*) of the current subject parcel. The oral histories also revealed that there was a less formal shoreline trail used when gathering marine resources. Located along these routes are several traditional settlements and village sites described by McElDowney (1979) and Maly (1999), including Keauhō, Pākī, and Hā'ena, which are located to the north of the subject parcel with additional village sites located to the south of the subject parcel. These coastal villages were established in areas with more favorable conditions for marine resources collection and also contained an environment to support traditional horticultural activities. As noted in the oral history interviews, these traditional agricultural sites are situated between the coast and Old Government Road. Burials were also noted by the several of the interviewees and being located near the villages and along the trails.

Although a variety of marine resources may be procured from the coast in the general vicinity of the subject parcel, the absence of cultivatable soil made this area a less favorable location for permanent settlement and traditional habitation. While the subject parcel location has not been identified as a traditional settlement or village site, other historic sites are known to exist in the general vicinity, one of which is the Puna Trail- Old Government Road, which is a marked trail currently managed by *Nā Ala Hele*.

It is our analysis, given the documented distance between the subject parcel and the previously identified natural, cultural, and historical resources, that the current proposed rezoning action will not adversely affect any of these valued resources. From a review of the oral traditions collected by Maly (1999), and through more recent observations, it is clear that the shoreline has been and continues to be accessed by local fishermen to procure a variety of marine resources. The collection of marine resources for subsistence purposes is a traditional and customary practice; and while such activity may be taking place in the vicinity of the current study parcel, it is our contention that the proposed rezoning action will not adversely affect this practice, nor will it impair access to the coast.

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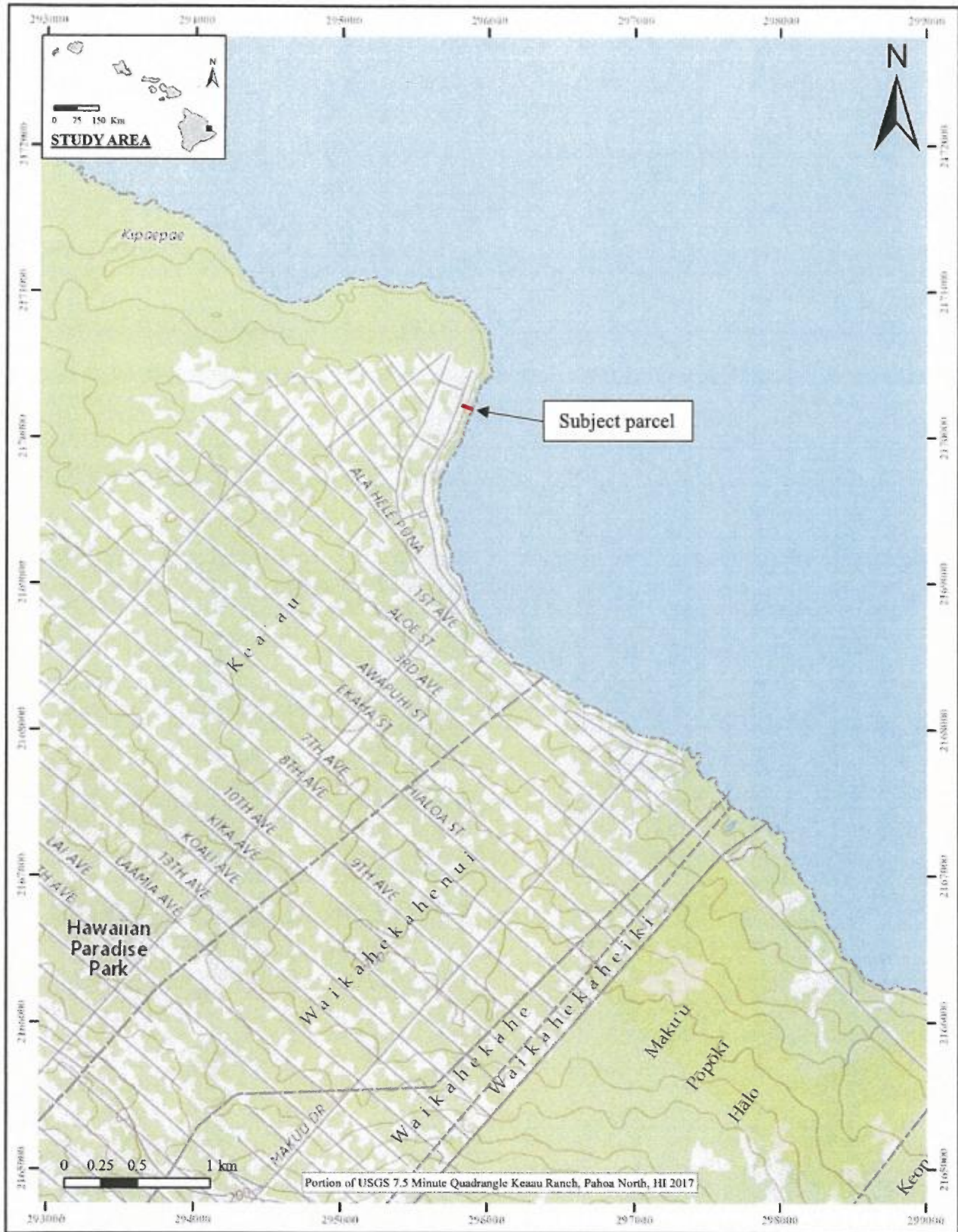


Figure 1. Subject parcel location.

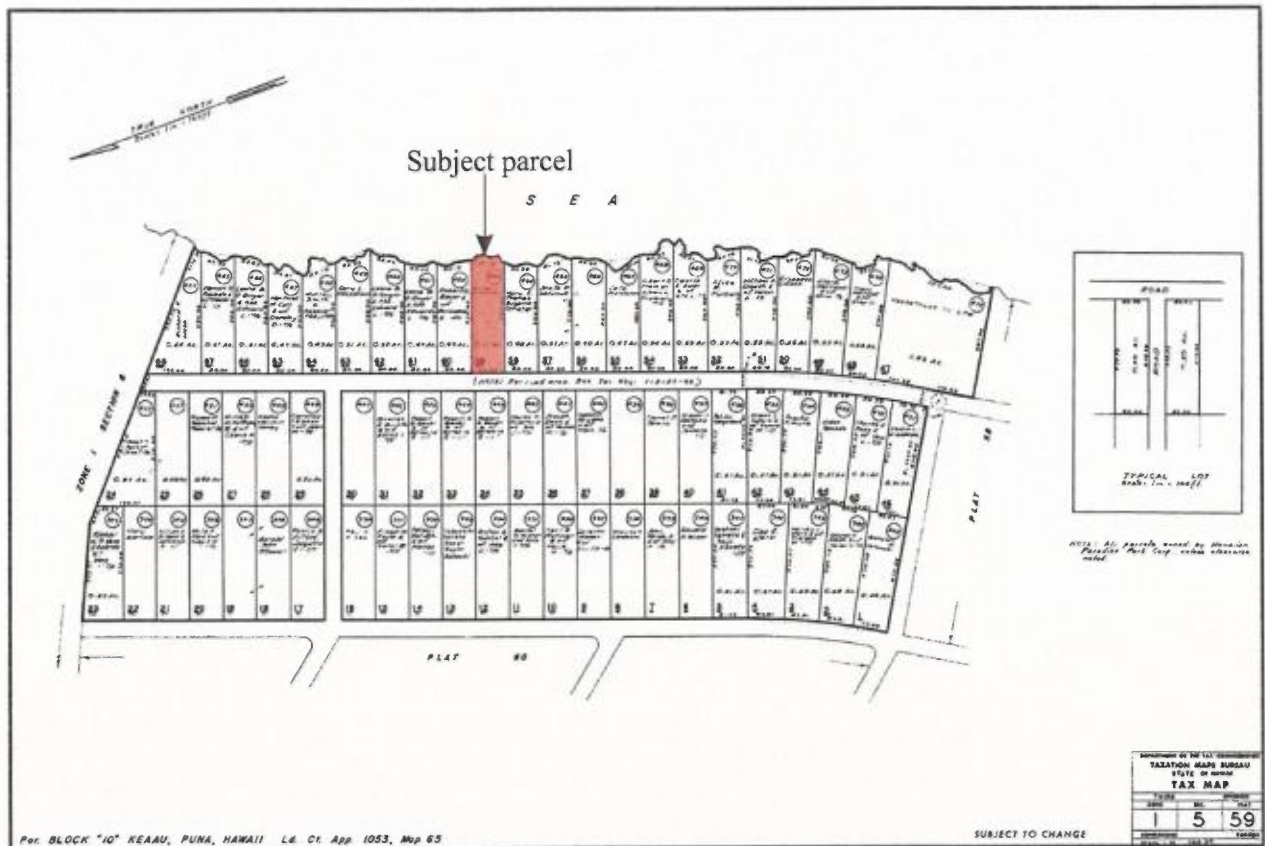


Figure 2. Tax Map Key (3) 1-5-059 with the subject parcel (059) indicated in red.



Figure 3. Aerial image showing the subject parcel (outlined in red).



Figure 4. Conservation-zoned lands in the vicinity of the subject parcel.

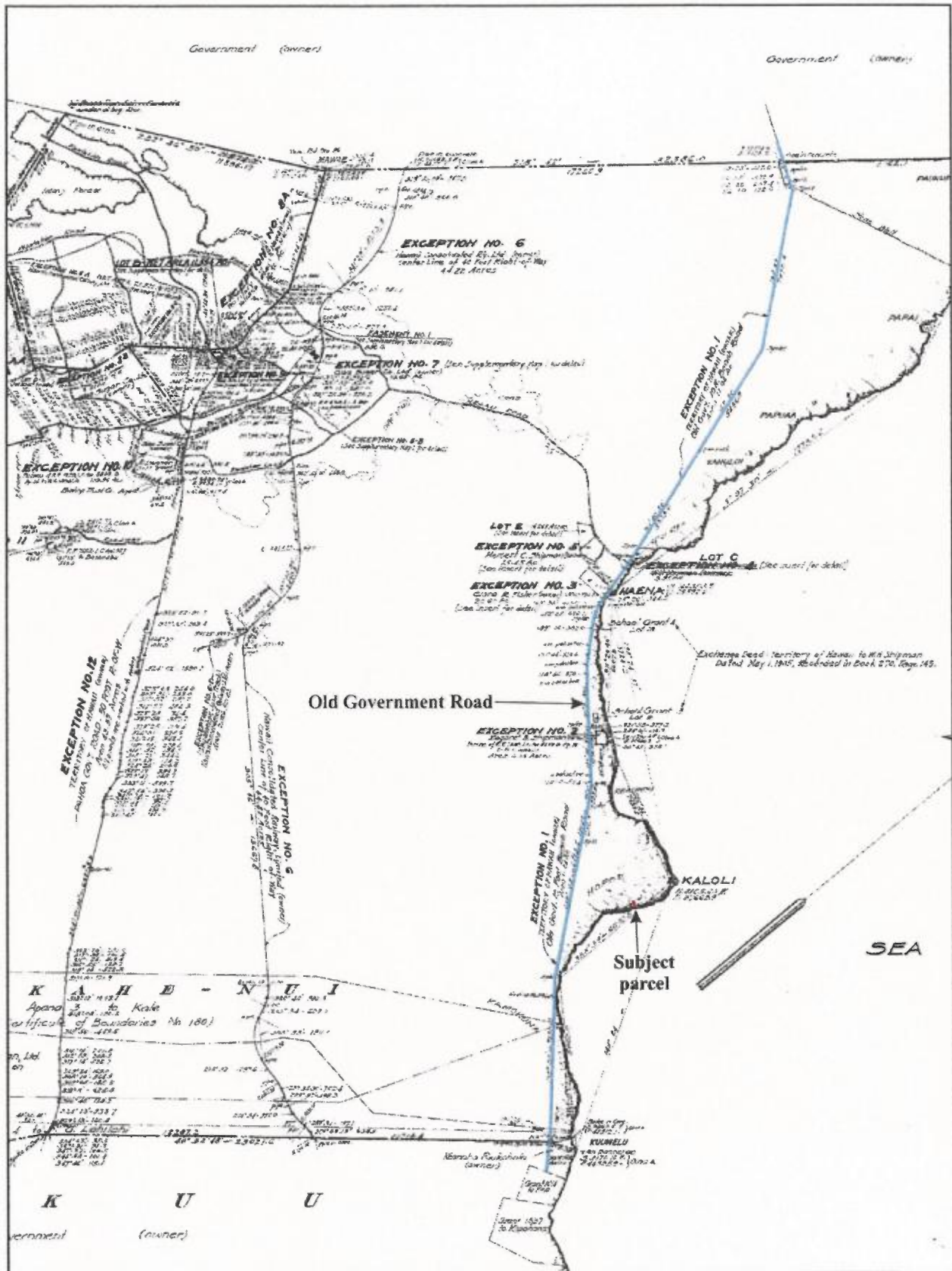


Figure 5. Portion of Land Court Application 1053 Map 1 (prepared July 31, 1930 showing the coastal portion of Kea'au Ahupua'a with the locations of the Old Government Road and the subject parcel indicated.

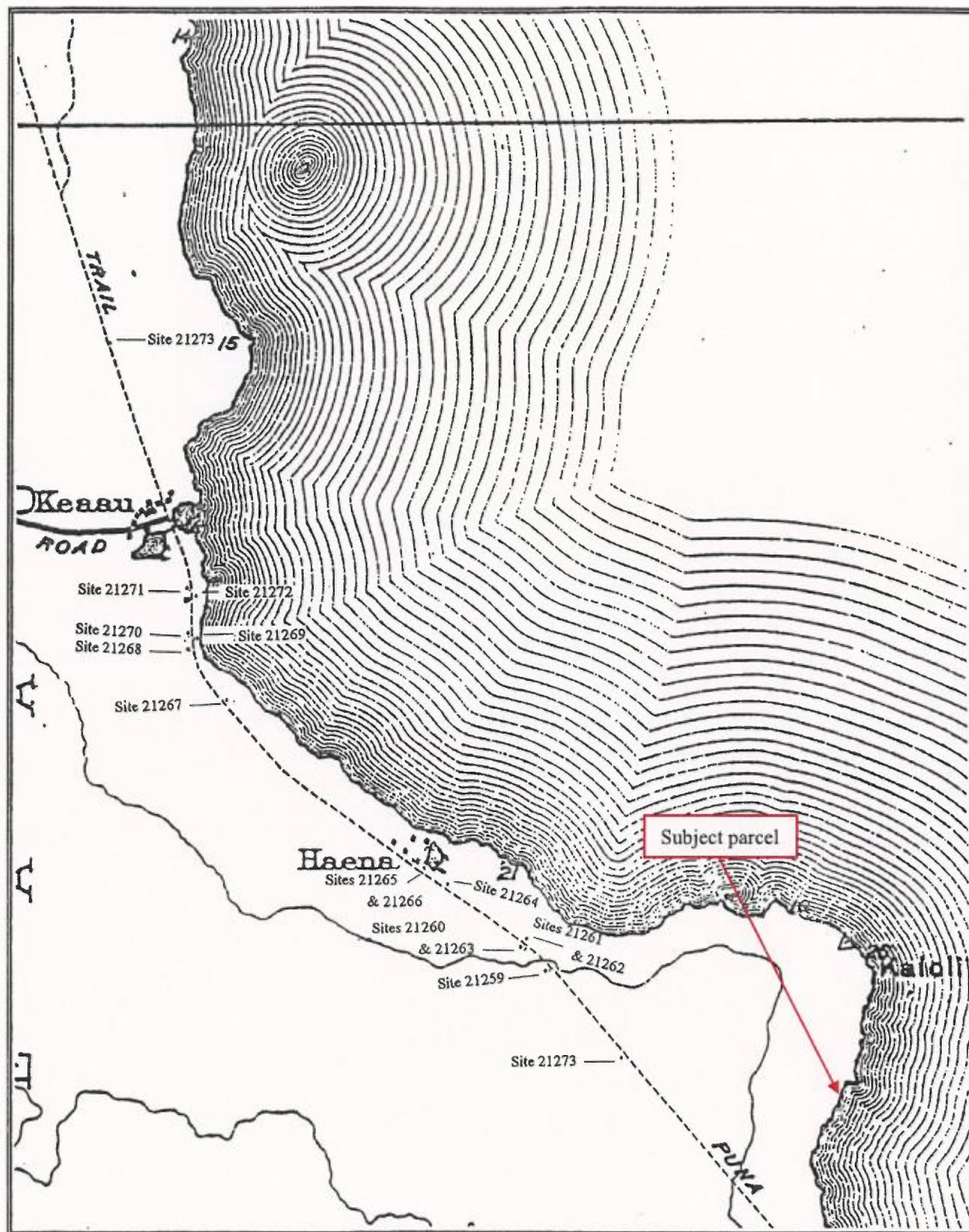


Figure 6. Location of archaeological sites previously recorded in Kae'au Ahupua'a along the route of the Old Government Road to the northwest of HPP (Lass 1997:Figure 2).