

SOURCE:

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**Chapter 3
Historic Context**

Introduction

To the extent that it is relevant to archaeological and historical investigations at PMRF, the cultural and historical setting is reviewed as six topics: (1) traditional cultural geography; (2) traditional land use; (3) early historic land use; (4) commercial agriculture era; (5) early twentieth century prior to World War II, and (6) World War II and Cold War to 1990s.

WHAT FOLLOWS IS THE ORIGINAL “TRADITIONAL CULTURAL GEOGRAPHY” SUBSECTION:

PMRF (Barking Sands and Kamokala Cave Ordnance Magazine Area) lie in an area called Mānā in the *ahupuaʻa* (traditional land area) of Waimea within the *moku* or district of Kona (Tomonari-Tuggle and Yoklavich 2005:80). Kona, also referred to as the Waimea District, is the largest of five traditional *moku* of Kauaʻi, comprising the entire southwestern half of the island (**Figure 3.1**). It incorporates considerable physical landscape and cultural diversity (Carson 2007; Tomonari-Tuggle and Yoklavich 2005). The district of Kona contains 14 *ahupuaʻa* (Sweeney 1994:9). *Ahupuaʻa* literally means “pig altars” in reference to pigs or other tribute offered to chiefs controlling these land divisions. Mānā was extensively utilized by early Hawaiians as evidenced by over 98 percent of the geographical features within the area having documented names, including peaks, ridges, hilltops, valleys, gulches, and streams (Flores and Kaohi 1992:10).

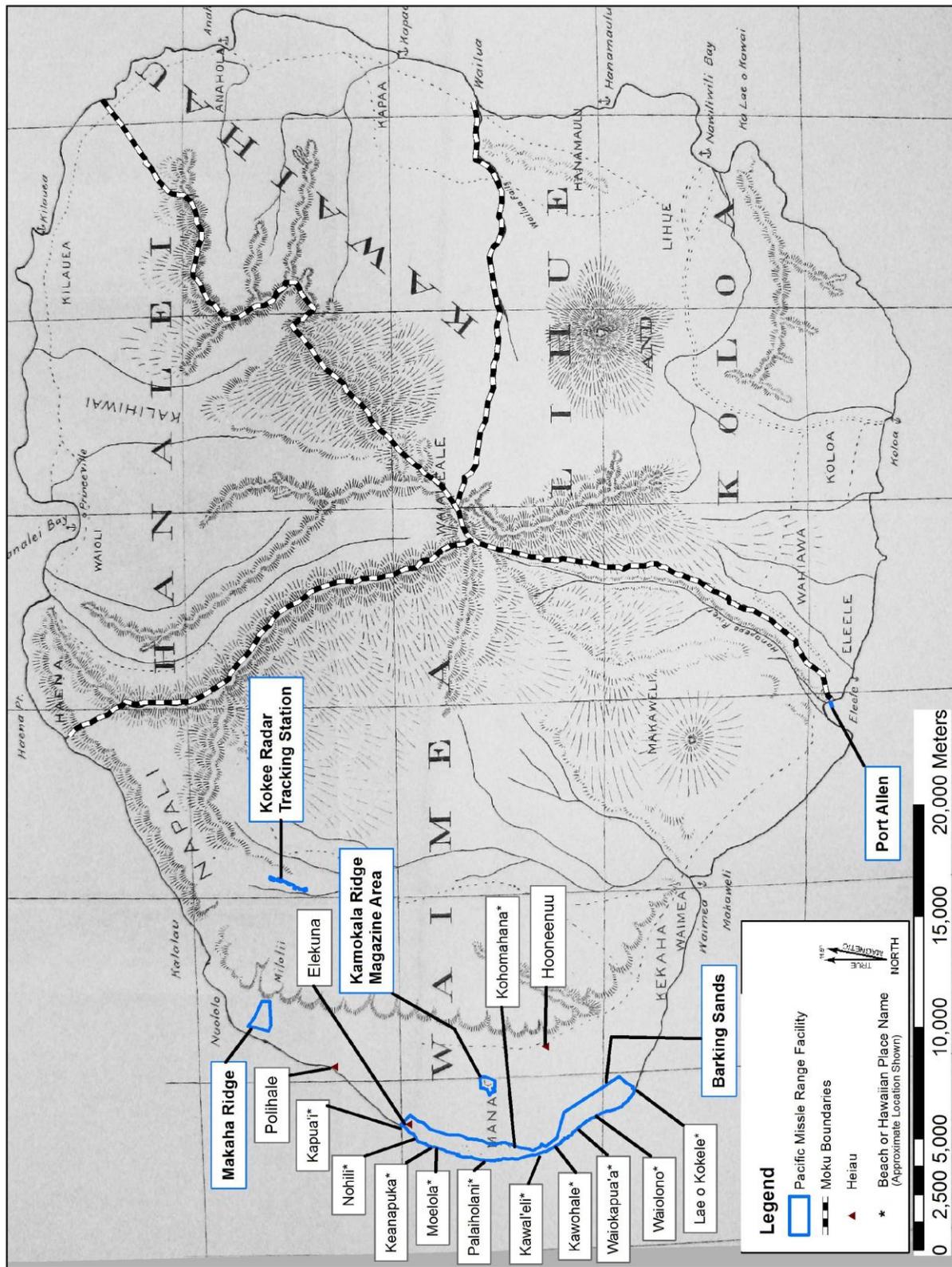


Figure 3.1. 1896–1897 map showing the five moku or districts of the island of Kaua'i (Kanakanui 1896–1897).

Traditional Cultural Geography

In traditional Hawaiian cultural geography, place names refer to landforms and the events that occurred there (**Figures 3.2–3.4**). They provide cultural context in both mythical and historical terms. They describe clouds, rains, winds, waters, plants, animals, and legendary and historical people, as well as cultural values of Hawaiians, their relationship to the environment, settlements, and cultural practices, including agriculture, fishing, and the gathering of nearshore marine and upland resources. Places that were celebrated, noted, or storied in oral traditions were referred to as *wahi pana*. Traditions comprise the living history of the islands and of specific areas, surviving in legends, chants and songs, stories, proverbs and oral histories, informant interviews, and historical accounts (see Flores and Kaohi 1992; Fornander 1917:282, 288, 306; Gonzalez and Peyton 1999; Maly and Wulzen 1997; Smith 1990; Tuggle and Tomonari-Tuggle 2004). They also include modern versions serialized in Hawaiian-language newspapers such as *Ka Hōkū o Hawai‘i* (Maly and Wulzen 1997) and in books (e.g., Wichman 1985, 1991, 1997, 1998, 2001).

Flores and Kaohi (1992:10) state that place names are often incorporated into Hawaiian proper names. Place names are often handed down to family descendants and provide holders a sense of identity and affiliation with particular cultural areas. In addition, they report that their informants often recalled place names of locations in which they or their families conducted certain cultural activities or events such as fishing, farming, hunting, or gathering resources. More than 90 place names have been compiled for the Mānā area (Flores and Kaohi 1992; Maly and Wulzen 1997; Tuggle and Tomonari-Tuggle 2004; Wulzen et al. 1997). Place names within the current boundaries of the Barking Sands section of PMRF from north to south include Nohili, Keanapuka, Moelaoa (Moelola), Palaiholani (Pelaeholani), Nanai, Kawaiele, Waiapuaa (Waiokapua, etc.), Waiolono, and Laeokokolele (Kokele Point) (Flores and Kaohi 1992; Gay 1874; Hawaii Territory Survey 1903; Hawaiian Government Survey n.d.; Imlay 1891).

Mānā literally means “arid,” which describes the climatic conditions of the Mānā Plain at the western end of Kaua‘i (Flores and Kaohi 1992:9, 19; Pukui and Elbert 1986:236). Mānā was where an older sister of volcano goddess Pele, Na-maka-o-Kaahai (the eyes of Kahai), introduced the *kauna‘oa dodder* (*Cuscuta sandwichiana*) (Pukui et al. 1974:144; see also Maly and Wulzen 1997); strands of *kauna‘oa* were fashioned into loose or tight braids for haku lei (braided garland, wreath, or necklaces of ferns and flowers) (Abbott 1992; Pukui and Elbert 1986:200). Mānā was also known for its singing dunes, mirages, and haunting ghosts, and as one of the many places throughout the Hawaiian Archipelago associated with volcano goddess Pele and her youngest sister Hī‘iaka (e.g., Emerson 1978; Handy and Handy 1991:411; Maly and Wulzen 1997:15-18; Wichman 1991, 2001).

Wichman (1991:12) in relating the story of Polihale portrays the Mānā area in pre-Contact times:

Polihale . . . was a konohiki [“land agent”] chief of Mānā, a land that stretched from the western cliffs of Nā Pali to the eastern boundary shared with Wai‘awa. Mānā is a land of long white beaches with the ocean on one side and a large swamp that teemed with birds on the other. Inland of the marsh was a fertile strip of land where sweet potatoes and gourds were grown. Above these fields cliffs rose stiff backed, broken by wide valleys down which constantly flowed fresh spring or rain water. The ridges, covered with sandalwood and *koa* (*Acacia koa*) trees, stretched into the mountains wreathed with cold and misty rain.

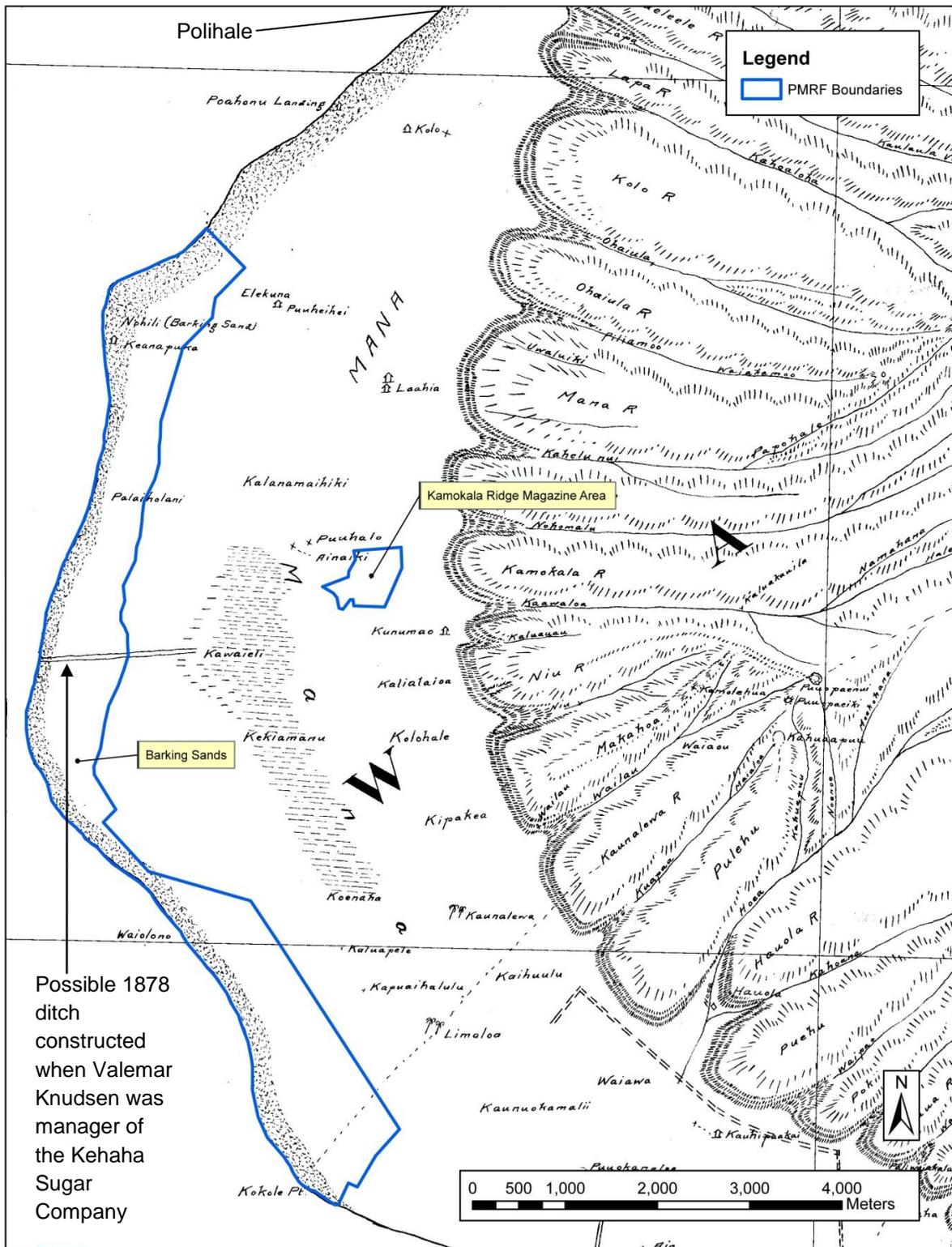


Figure 3.2. Section of 1891 map showing place names in Mānā area, extending north to south from Polihale to Kokole Point (Imlay 1891).

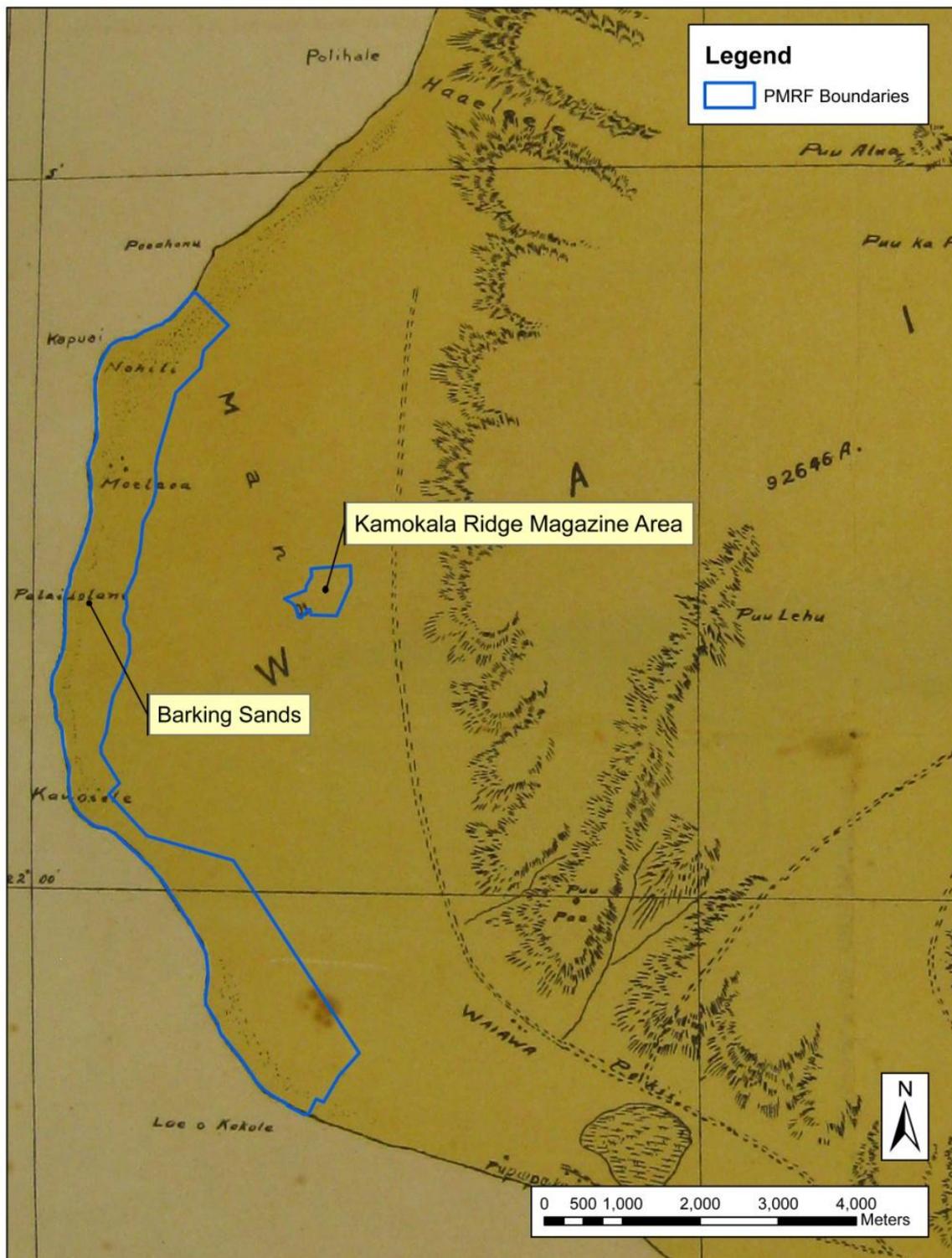


Figure 3.3. Section of 1901 map showing place names along Mānā shoreline, extending north to south from Polihale to Lae o Kokole (Territory of Hawaii 1901).

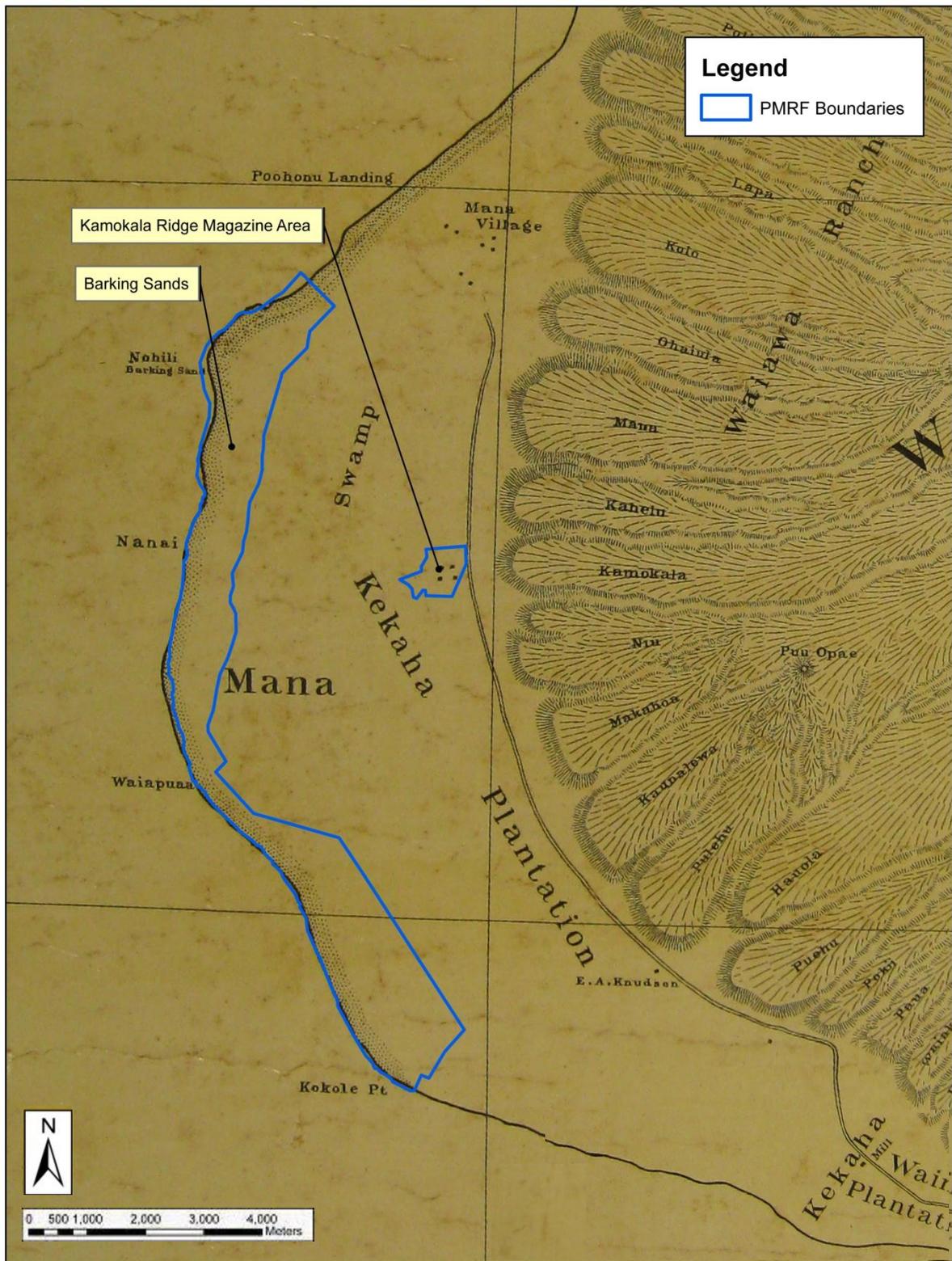


Figure 3.4. Section of 1903 map showing place names on the Mānā landscape (Hawaii Territory Survey 1903).

The Mānā Plain is a large geological landform covering much of the coastal terrain of west Kauaʻi. Traditions pertaining to Mānā-Kekaha refer to this region as being important for habitation, agriculture, and ceremonial activities, including use of the dunes as burial grounds. The Mānā area was especially known historically for its offshore fishing grounds, wet taro cultivation in the marshes inland of the dunes, and the *ʻiliahi* (*Santalum* spp.) or sandalwood forests in the uplands (Handy and Handy 1991:411; Maly and Wulzen 1997:23). The coastal dune and back beach areas were the setting for temporary fishing camps that were linked to permanent communities at the foothills. In late pre-Contact times (1700s), the seaward beach ridge in the northern Mānā Plain was likely a typical lowland grassland and shrubland in a dry leeward zone (Carson 2004:7). From the inland edge of the plain, the people of Mānā had ready access to wetland and upland forest resources (Tomonari-Tuggle and Yoklavich 2005:80-83).

Mānā was equally famed as one of the *leina a ka ʻuhane*, leaping or departing places of souls, based on the extensive burials in the coastal sand dunes (Flores and Kaohi 1992; Maly and Wulzen 1997:23; OʻHare and Rosendahl 1993:4; Wulzen and Jensen 1995:4). Gonzalez and Peyton (1999:20) state that archaeologists and elders have indicated that a *leina a kaʻuhane* is located on the cliffs above the Kamokala Caves section of PMRF. Kahelu *heiau* was erected one ridge north of Kamakala Ridge at a point where ancestral deities and entities would come through openings in the heavens from the *ʻaumakua* (family or personal god or deity) realm (Flores and Kaohi 1992:106, 217; Gonzalez and Peyton 1999:11; Pukui and Elbert 1986:32).

Permanent settlements likely stretched along the inland edge of the Mānā Plain. Small seasonal fishing communities were scattered along the coast, concentrating near optimum localities such as breaks in the reef where canoes could be launched or where reefs provided rich habitat for nearshore marine resources. Some of these temporary camps occurred on the protected, lee sides of the high dunes from Nohili Point to Polihale. The dunes provided them protection from storm waves, floodwaters, and strong onshore winds while giving them easy access to ocean resources. Taro was cultivated in portions of Kolo Swamp adjacent and *mauka* (toward the mountains) of these house sites. Freshwater was obtained from springs, intermittent streams, and percolating water near the ocean. Houses and religious structures (e.g., *heiau*) were built on the ridges, along the cliffs, and in the valleys and foothills overlooking Mānā Plain and its wetlands, with the exception of ʻElekuna *heiau* (Bennett 1931:102-103; Flores and Kaohi 1992:33, 44; Tomonari-Tuggle and Yoklavich 2005:80-83); Elekuna [ʻElekuna] is shown on an 1891 map near Puuheihei [Puʻuheihei] (see **Figure 3.2**). During his 1928–1929 island survey, Bennett (1931:102) observed house sites marked “by single rows of stones . . . or by low walls” along the inland side of the dunes at the northern edge of the marshlands in the northern portion of Barking Sands.

Two primary land routes extended from the east onto the Mānā Plain. One stretched along the base of the cliffs and ridges and the other along the shoreline. Other trails ran inland from the coastal plain to the mountains (see **Figure 3.4**). People also traveled by launching canoes from beaches with unobstructed reefs and passageways such as at Palaiholani, Keanapuka, Poʻoahonu, Keawanaiʻa, and Polihale (Tuggle and Tomonari-Tuggle 2004:149-150). After heavy flooding from Kona storms, it was possible to traverse the swamps and marshlands of the Mānā Plain by canoe from Mānā to as far south as Waimea (Bennett 1931:6) or from Waimea as far inland as Kolo or Kaunalewa (Faye 1981; Flores and Kaohi 1992:33, 77, 125; Knudsen 1991:99; McGerty and Spear 1997c:9-10; Tuggle and Tomonari-Tuggle 2004:150). Kennedy (1991a:10) reports that “Hawaiians bringing taro by canoe from the Na Pali Coast area would come ashore at Polihale, transport both canoes and cargo across the sand spit, and continue their journey to Kekaha and Waimea on the lagoon.”

The people of Mānā were noted primarily as fishermen. They took advantage of the rich ocean channel between Kaua'i and Ni'ihau known as Kaulakahi (Flores and Kaohi 1992:13, 114; Tuggle and Tomonari-Tuggle 2004:149). Fishing also occurred in the swamps and ponds on the coastal plain between Polihale and Waimea. The swamp areas of Limaloa, Kawaiele, Nohili, and Kolo were used as brackish-water *loko pu'uone* fishponds (Flores and Kaohi 1992:26, 31; Kikuchi 1987:5, 9; Kilauano 1991). They were fed by freshwater runoff from mountain streams, artesian springs, and water that percolated from adjacent aquifers (Flores and Kaohi 1992:31). Some of these natural ponds were altered by digging ditches through the dunes that allowed seawater to flow into the ponds during high tide (Gonzalez et al. 1990a:27; Kikuchi 1987:9; Tuggle and Tomonari-Tuggle 2004:149). Among the fish raised in these ponds were *'anae* (mullet), *awa* (milkfish), *āholehole/āhole* (flagtail), *pāpio/ulua* (jackfish), *'ō'io* (bonefish), *nehu* (anchovy), *awa 'aua* (tarpon), *'o'opu* (goby), *kākū* (barracuda), *moi* (threadfish), *weke* (surmullet), and others (Flores and Kaohi 1992:31). The Mānā wetlands also provided an important habitat and nesting area for Hawaiian water birds, including *koloa maoli* (duck), *'auku'u* (night heron), *āe'o* (stilt), *'alae 'ula* (gallinule), and *'alae kea* (coot) (Tuggle and Tomonari-Tuggle 2004:147).

The plain's aridity limited the amount of farming that could be done, particularly irrigated agriculture (Tuggle and Tomonari-Tuggle 2004:149). Pukui (1983:271) states that in ancient days, the people of Mānā did little *poi* making except at places like Kolo, where taro was grown. In addition, because taro cooking and *poi* making was done elsewhere, the people of Mānā were said to live on "smokeless food." Handy (1940:61) indicates they grew wet taro at the northern end of the Mānā swamp, near Barking Sands. The wet taro was grown in soil piled on rafts that were floated on the marshes, were partially submerged, or possibly rested on the soft bottoms (Flores and Kaohi 1992; Handy and Handy 1991:411, 419; Pukui 1983:232). The people of Mānā also traded with the people on the nearby island of Ni'ihau (Tuggle and Tomonari-Tuggle 2004:149) and exchanged fish and dryland products (such as gourds) with taro producers living in the uplands (Flores and Kaohi 1992:77).

The mountain regions provided places of refuge, caves for burials, and materials for house construction, including timber, *pili* (*Heteropogon contortus*) grass, and volcanic stones (Bennett 1931; Flores and Kaohi 1992:33). The upper slope trails extended to the Nā Pali coast. *Koa* (*Acacia koa*), *'iliahi* (*Santalum* spp.), and *kauila* (*Alphitonia ponderosa*) were harvested (McGerty and Spear 1997:12). Some were felled for canoes, others for household items, implements, medicines, and religious purposes. Bird catchers and canoe and paddle makers were among those who dwelled and worked for long periods in mountain areas (Flores and Kaohi 1992:33, 44). Melons, taro, sweet potatoes, bananas, and other food crops were grown in wet areas on the plain and at the mouths of narrow gulches and valleys that fed onto the plain (Flores and Kaohi 1992:33, 114; Gonzalez and Peyton 1999:10; Sweeney 1994:33). Resources gathered from the coastal plain included seaweed, salt, *'a'ali'i* (*Dodonaea* spp.) shrubs for firewood, *hi'aloa* (var. of *'uhaloa*, a weed; *Waltheria indica* var. *Americana*) and other plants for medicine, and *makaloa* (*Cyperus laevigatus*, a perennial sedge) and *neki* (bulrush) for weaving. The *neki* and *makaloa* were used in plaiting mats and other articles (Pukui and Elbert 1986: 227, 363; Tuggle and Tomonari-Tuggle 2004:150).

Beginning in pre-Contact times, the coastal dunes also were used as burial grounds. Human remains have been found in the sands of PMRF Barking Sands, from the north end of the installation to Waiokapua Bay (Tomonari-Tuggle and Yoklavich 2005:80-83). Waiokapua Bay is depicted on **Figure 3.8** below. Dye and Dye (2009a:4) suggest that the concentration of burials and *heiau* in the northern dunes probably reflects a large settlement inland and north of PMRF, rather than dense settlement along the coast. Drolet and Powell (1998:16) say that the coastal dunes served both as a cemetery area and as a seasonal procurement zone for harvesting marine resources. References to burials in the Nohili area

appear in oral traditions and literature (e.g., Fornander 1917). Reportedly, Pō (abode of the dead) “lies under the ocean just outside Polihale” (e.g., Knudsen 1991; see McGerty and Spear 1997c:11).
