



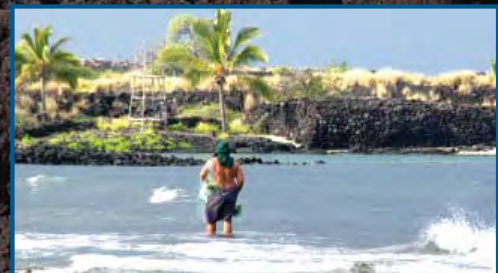
Ala Kahakai

National Historic Trail

Comprehensive Management Plan

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Ala Kahakai National Historic Trail Comprehensive Management Plan Hawai'i County, Hawai'i

May 2009

This Comprehensive Management Plan represents the overall management strategy for an approximate fifteen year period for the Ala Kahakai National Historic Trail. This document summarizes the selected alternative from the Abbreviated Final Comprehensive Management Plan/ Environmental Impact Statement (October 2008). The Record of Decision (ROD), signed on January 29, 2009, is included in this document as appendix C. The ROD also contains a summary of public and interagency involvement.

Photo Credits

Front cover: Trail to Luahinewai, Kīholo, North Kona, NPS photo; inset: A throw-net fisherman at Kaloko-Honokōhau National Historic Park, Barbara A. Schaefer photo

Back cover: top left: Hikers along the trail between Keawaiki and 'Anaeho'omalu Bay, Barbara A. Schaefer photo; top right: Navigators' Heiau, N. Kohala, NPS photo; bottom: Pu'ukoholā Heiau NHS, NPS photos.

This page: Manini'owali, N. Kona, NPS photo

Inside back cover: top left: Manini'owali, N. Kona; top center: Anchialine pond, Kaloko-Honokōhau NHP; top right: Jeep Trail, N. Kohala; below: 'Anaeho'omalu Petroglyph Preserve, NPS photos.



Dear Friends,

It is with great pleasure that the National Park Service presents this comprehensive management plan. It is based on specialized input and community consultation and will serve as the guide for the management of the Ala Kahakai National Historic Trail for the next fifteen years.

This document is more than just a 'plan'. It reflects the collective vision and dreams of the hundreds of individuals who took part in the consultations or who shared their personal feelings and thoughts about this amazing and culturally significant trail. Their thoughts and stories have provided meaningful insights that guided us to select the descendant-led, community-based alternative to trail management referred to in the plan as the Ahupua'a Trails System.

In many respects, it is a model plan and an example of collaboration since the now adopted Ahupua'a Trails System alternative was created in direct response to the concerns and issues identified through a rigorous public planning process. It is a model for Hawaii in that it will bring together county, state, federal agencies, private landowners and businesses, as well as community groups in partnership to manage shoreline trails and their associated cultural and natural resources.

Since the Ala Kahakai National Historic Trail was designated in 2000, the National Park Service has learned much about how different historic and cultural trails are in that they have been in continuous use since the arrival of the first Polynesians to the Hawaiian Islands. We understand how important trails are to Hawaiian people and to others whose ancestors arrived in historic times. Trails have always contributed to building and connecting communities and in the management of an abundant economy able to sustain thousands of islanders with no dependency on off-shore sources.

The hundreds of stories that we have heard during the planning process have been truly remarkable and inspirational, and I am certain that this document captures both the local and national significance of the trail. I am equally confident that the management strategy we have developed through this collaborative effort can achieve our long term goals to provide a means to integrate modern management sciences into traditional knowledge and practices and to provide a way for local communities to be engaged in the preservation and management of their ancient and historical trails and routes.

I am often asked, "How can we accomplish all of the things that are in the comprehensive management plan?" The simple answer is that we must all continue to remain engaged with each other and dedicate the time and effort it will take. Through groups such as the Ala Kahakai Trail Association and Ē Mau Na Ala Hele, the public and private sectors, and other partners, it is possible to accomplish together what is not possible alone. It is through the power of deep-rooted, personal commitments of individuals and families that we will continue the forward movement to fulfill their "kuleana"—their ancestral responsibility—to care for the trails and the places along the trail in a manner that is inclusive of all members of our island communities.

I want to sincerely thank each of you for sharing your time, your stories and for working with us and teaching us that, "the trails are the people and the people are the trails". I look forward to seeing you soon and implementing this important plan together. Please do not hesitate to contact me if you have any questions or comments.

Aloha pumehana,



Aric Arakaki
Superintendent
Ala Kahakai National Historic Trail





Mamalahoa trail, NPS photo

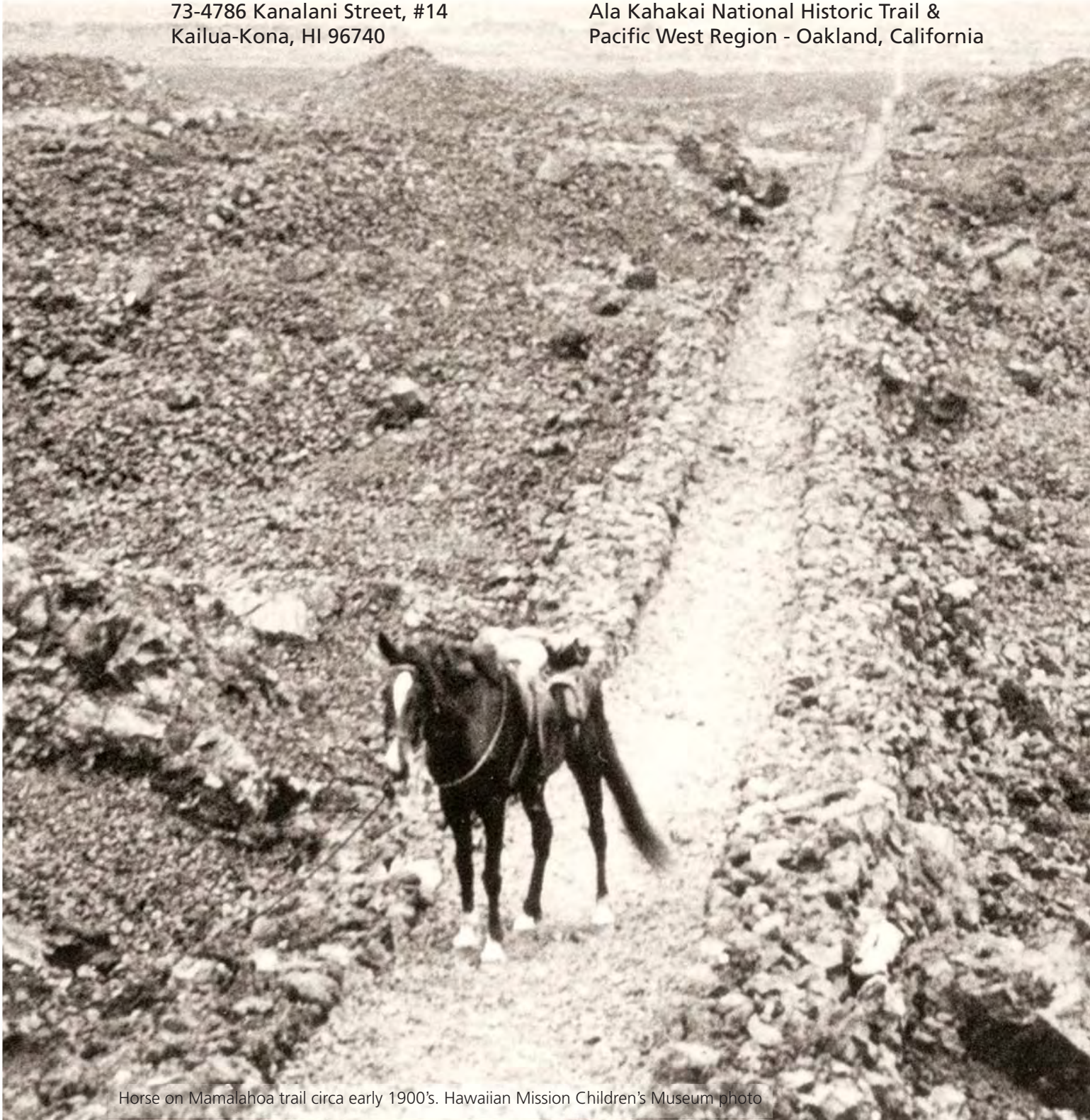
Ala Kahakai National Historic Trail Comprehensive Management Plan

Contact:

Superintendent
Ala Kahakai National Historic Trail
73-4786 Kanalani Street, #14
Kailua-Kona, HI 96740

Prepared by:

U.S. Department of the Interior
National Park Service
Ala Kahakai National Historic Trail &
Pacific West Region - Oakland, California



Horse on Mamalahoa trail circa early 1900's. Hawaiian Mission Children's Museum photo



Trail near Punalu'u, Barbara A. Schaefer photo

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Hawaiian Words Used in the Text

‘a‘ā – Solidified lava with a rough, clinkery surface.

ahu – A heap of stones erected as a marker; a cairn; the altar upon which tribute offerings were placed.

ahupua‘a – A major land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (*ahu*) of stones surmounted by an image of a pig (*pua‘a*) or because a pig or some other tribute was laid on the altar as a tax to the chief.

‘āina – The living earth.

ala – Anciently a footpath, trail, way; now also road or highway.

‘alā – Waterworn stones used as steppingstones or to mark a footpath; also called *pa‘alā*.

ala aupuni – Government trail, or government road, developed from a program begun in 1847 and continuing until 1892.

ala loa – Coastal trail around an island; long trail.

Ala Kahakai – “Trail by the Sea,” name given to a state trail from ‘Upolu Point to Kailua and ultimately to the 175-mile national historic trail.

alanui aupuni – Street, road, or highway.

ali‘i – Hawaiian sacred chiefs and chiefesses; the nobility.

aloha – Sacred breath of life, love, compassion.

aloha ‘āina – Love of the land, reverence for all living things.

heiau – Hawaiian temple platform. There were numerous temples for many different purposes such as agricultural prosperity, fishing, surfing, the *hula*, etc. Only the highest ranking one, the *luakini*, was used for human sacrifice.

hōlua – An inclined dry-laid masonry ramp on which sledding contests were held.

ho‘okipa – Hospitality

ho‘okupu – Tribute as a sign of honor and respect, gift exchange.

‘ili – A subdivision within an *ahupua‘a* administered by the chief controlling the *ahupua‘a*.

‘ike – Knowledge.

‘ili‘ili – Pebbles.

hula – Traditional form of dance.

Ka Lae – Literally “the point” (South Point).

Kahiki – The “ancient ancestral lands”; believed to refer to Tahiti in the Society Islands.

kahuna – Prophet, seer; members of a priestly class; also classes of specialists and experts (e.g. navigators, healers, *tapa* workers, sculptors,



Stepping stone trail, North Kona, NPS photo

architects, medical practitioners, genealogists, and so on).

kama'āina – Native born Hawaiian; person familiar from childhood with any locality; in modern usage it refers to all long-time residents.

Kāne – One of four god types of ancient Hawai'i (Kane, Ku, Lono and Kanaloa).

kapa – Tapa, or barkcloth (*Broussonetia papyrifera*).

kapu – Taboo; sacred; no trespassing.

Kapu – A complex religious and political organization with associated rules (taboos).

kiawe – The algaroba (*Prosopis pallida*), a legume from Peru. First introduced to Hawai'i in 1828.

kīhāpai – Small land division; cultivated patch or small farm.

ki'i pōhaku – A recent term to describe petroglyphs or rock art (literally "stone images").

kino lau – Many forms taken by a supernatural, as Pele.

kīpuka – An island of vegetation surrounded by younger or sparsely vegetated lava flows.

koa – An endemic tree (*Acacia koa*), common in the dry forests, the wood of which was prized for canoes and other artifacts.

ko'a – Fishing shrine.

kō'ele – Small land unit farmed by a tenant for the chief.

kokua – "Pulling with the back," pitching in to help, volunteering.

konohiki – Land manager of an *ahupua'a*; a lesser chief.

kōnane – An ancient Hawaiian game resembling checkers.

Kū – A category with hundreds of gods. Kūkā'ilimoku was the war god of the Pili line of chiefs, of which Kamehameha was a member.

Kūkā'ilimoku – Kamehameha I's war image, among others. He was given charge of it by his uncle, Kalaniopu'u.

kukuni or kuni – To burn, blaze, kindle, scorch, brand.

kula – Plain, field, open country; source.

kuleana – Responsibility, implied reciprocity.

ku'ula – *Heiau* for the worship of fishing gods; also a fish god stone.

Kumulipo – Origin, source of life; name of Hawaiian creation chant.

kupuna – Grandparent, ancestor, relative of grandparents' generation. *Kūpuna* is the plural form.

laulima – "Many hands working together," cooperation.

lōkahi – Unity, balance, harmony.

loko kuapā – Fishpond wall.

loko pu'uone – Pond by the shore.

Lono – One of four god types; associated with agriculture, fertility and peace.

lua – Pit, indentation, hole.

luakini – The *heiau* maintained by a paramount chief in his chiefdom for prayer and human sacrifice; the highest rank of temple. Generally dedicated to different Kū variants of each kingdom, which were the gods of war and of national prosperity.

mahalo – Thanks, gratitude.

Māhele – Literally "a division, or a portion". The Great Māhele of 1848 was a division of lands between the king, chiefs, and government that established land ownership on a Western style, fee-simple basis. From this single act, the entire social, economic and political order of ancient Hawaii was altered forever.

makai – Toward the sea; at the coast.

maka'āinana – People in general; citizen.

Makahiki – The portion of the Hawaiian annual cycle which saw desanctification of the *luakini* temples and the ceremonial collection of taxes or tribute. It began about the middle of October and lasted four lunar months, with sports and religious observances and a taboo on war.

māla – Garden, plantation, cultivated field.

malama – Care for, preserve.

mana – Spiritual power, derived from the ancient gods, contained in varying degrees in all life forms and inanimate objects.

mana'o – Thought, idea, opinion; theory.

mana'o'o'i'o – Respect for nature.

mauka – Towards the interior, or mountains; inland.

mauka-makai – Refers to trails that run from the mountains to the sea.

mō'i – King, ruler.

mo'olelo – Story, tale, history, tradition, legend.

Nā Ala Hele – The name given to Hawai'i's Statewide Trails and Access System which was established in 1988. Nā Ala Hele develops and improves mountain and shoreline trails and accesses, both historic and modern, throughout the state while conserving Hawai'i's unique environment and cultural heritage. Literally means "the trails."

nui – Large; important; before a noun, *nui* might mean "group."

'ohana – Family, relative, kin group.

'ōhi'a – An endemic tree (*Metrosideros polymorpha*) dominant in the wet forests. The wood was used for temple images.

'opihi – Several species of limpets (*Cellana spp.*).

pa'alā – Water-worn stones. See *alā*.

pali – A cliff or precipice.

papamū – "Checkerboard" for game of *kōnane*, consisting of small, shallow holes arranged in a grid, either on native rock or a detachable slab.

pāhoehoe – Solidified, smooth unbroken surface lava. When compared with 'a'ā, often appears as billowy fields with hollows and small hills; large cracks mark some billows.

piko – Navel; umbilical cord stump.

pono – Balance, proper, right, just, fair, integrity.

pua'a – Pig.

pu'u – Any kind of protuberance; hill, peak, mound, bulge.

pu'ulena – A famous cold wind at Kīluea and Puna.

pu'uhonua – Place of refuge; sanctuary. These were established specific sites usually associated with a *luakini heiau* at a royal center such as Pu'uhonua o Hōnaunau, of the ruler himself or herself.

tsunami – Seismic wave (Japanese).

'ūlei – A native spreading shrub (*Osteomeles anthyllidifolia*).

wahi pana – Storied and sacred places.

wao – Environmental zone.



Trail, North Kona, NPS photo



Jeep Trail, N. Kohala, Ka'awaloa, S. Kona, NPS photos



INTRODUCTION



Introduction

Description

The Ala Kahakai National Historic Trail (NHT) combines three kinds of Hawaiian trails:

- surviving elements of the ancient *ala loa*¹
- historic trails that developed on or parallel to the traditional routes post-contact (1778)
- more recent pathways and roads that created links between these ancient and historic segments.

These trails may run lateral to the shoreline or, within the trail corridor, run *mauka-makai* (from sea toward the mountain). The trail extends approximately 175 miles from 'Upolu Point on the northern tip of Hawai'i Island down the Kona Coast and around South Point to the eastern boundary of Hawai'i Volcanoes National Park (map 1). The National Park Service (NPS) administers the Ala Kahakai NHT.

This Comprehensive Management Plan establishes the management guidelines needed to fulfill the preservation and public use goals for the Ala Kahakai NHT for the next approximate 15-year period. The plan is based on the trail's purpose and its significant attributes, stories, and experiences, and is guided by the community vision for the trail. This plan offers strategies for resource protection, trail use, and facility development. It serves as the umbrella document under which more implementation plans will be prepared in the future.

¹ "Ancient" or prehistoric trails such as the *ala loa* (long trail) are those that were made in Hawaiian antiquity, predating western contact in 1778. In this plan, "ancient" is used instead of "prehistoric" or "precontact" when referring to trails predating Western contact.

"Historic" in this plan refers to trails developed post Western contact until the promulgation of the Highways Act of 1892. By the middle 1820s, Governor Kuakini and island chiefs began a program of improving key trails on the island of Hawai'i to improve access for missionary efforts and the transportation of goods. In the 1830s the king began to formalize a program for work on and development of improved trails and roads. This work was generally performed by those convicted of crimes and in commutation for taxes. This program led to the development of the *alanui aupuni* (government road) system in 1847. These government roads are "historic" in design, function and use (Maly, 2005).

Foundation for the Trail Plan

This Introduction section of the plan expresses the heart of the Ala Kahakai NHT, the foundation upon which all planning decisions are grounded. The elements of this foundation are the purpose and community vision for the trail, the trail's significance to the Hawaiian people and the entire nation, and the overall interpretive messages of the trail.

The purpose and vision for the trail, crafted over many meetings and talks with community members along the route and elsewhere on the island of Hawaii, reflect the values of a Hawaiian people who preserve and care for their land and their traditions. From this caring, cultural concepts have developed that will guide management of the trail: *kuleana*, responsibility; *laulima*, working together; *malama*, caring for, preserving; *aloha 'aina*, love of the land, among others.

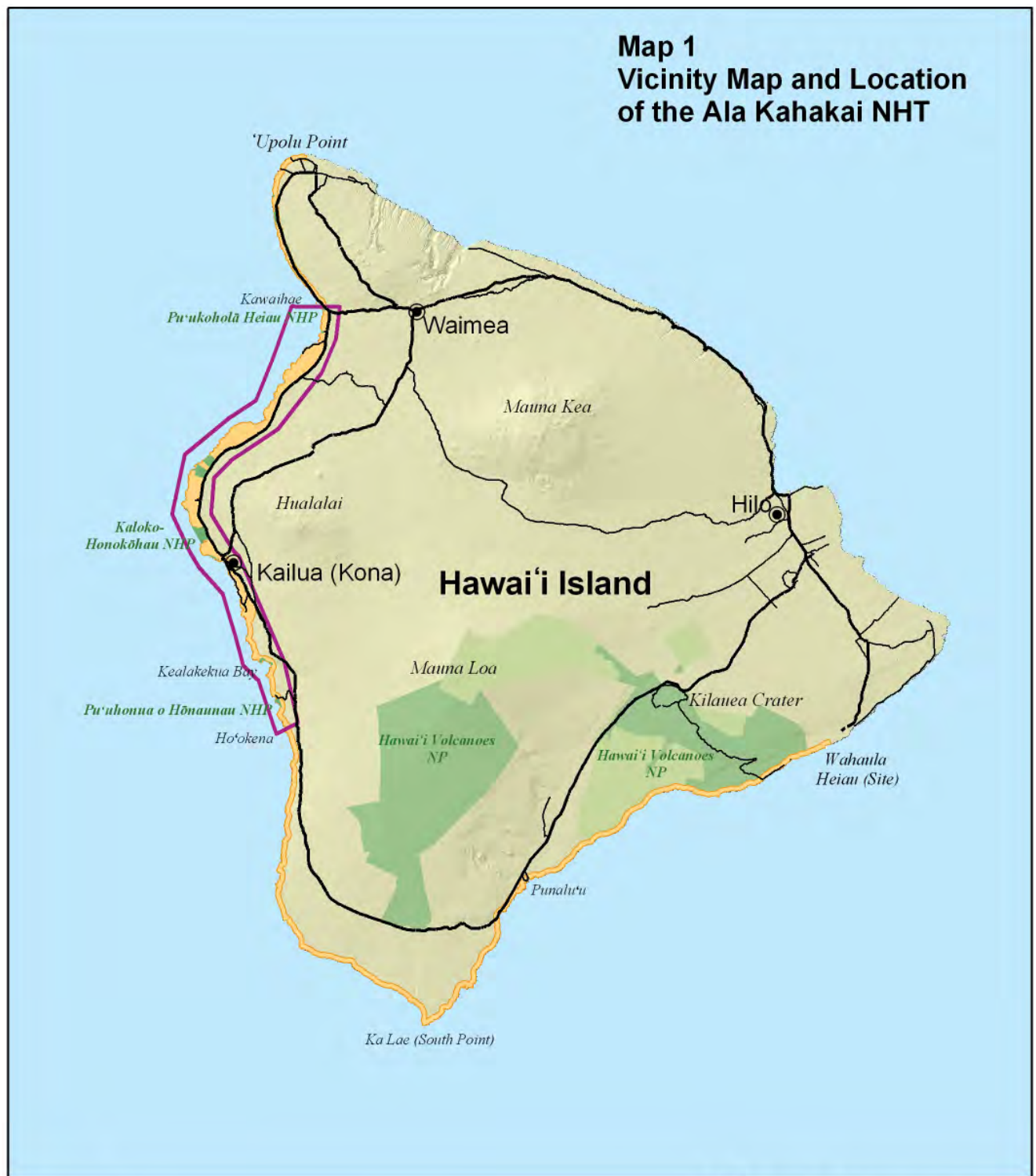
Each statement of significance not only embodies fundamental values and resources related to the trail, but also offers a commitment by the NPS and the community at large together to preserve, protect, and interpret those particular values and resources. The trail's significance is further developed in the interpretive themes.

The following pages graphically highlight in words and pictures the importance of the purpose, community vision, significance, and primary interpretive themes to the management of the Ala Kahakai NHT.



Trail at Pu'uhonua o Hōnaunau, NPS photo

Map 1
Vicinity Map and Location
of the Ala Kahakai NHT



Legend

Ala Kahakai NHT Corridor

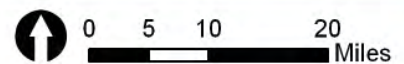
Roads

Primary
 Secondary

Parks

Wilderness

Priority Area for implementing
the 15-year planning period



Ala Kahakai National Historic Trail
7/2009

Purpose of the Trail

A statement of purpose defines why a particular trail or park is recognized. The purpose of the Ala Kahakai NHT, derived from the legislative history, the Feasibility Study, and the public CMP scoping process completed in 2005 is to:

- **To preserve, protect, reestablish as necessary, and maintain a substantial portion of the ancient coastal *ala loa* (long trail) and associated resources and values, along with linking trails on or parallel to the shoreline on Hawai‘i Island**
- **To provide for a high quality experience, enjoyment, and education — guided by Native Hawaiian protocol and etiquette — while protecting the trail’s natural and cultural heritage and respecting private and community interests**



Jeep trail, N. Kohala, Mahukona, N. Kohala, young surfers at “Pine Trees”, Kohanaiki, N. Kona, cultural festival, Kaloko-Honokōhau NHP, N. Kona, NPS photos.



Community Vision for the Trail

Communities along the route expressed a vision for this national historic treasure. The Ala Kahakai NHT will:

- **preserve ancient and historic trails within the corridor and tell the stories of those who use them**
- **provide access to practice traditional lifestyles and mālama ‘āina (care for the land)**
- **protect sacred sites, historic places, and natural areas**
- **become a living classroom for educating Hawai‘i’s people and visitors**
- **offer opportunities for community partnerships based on the ahupua‘a concept**
- **create safe and well-kept places for spiritual, cultural, and recreational practices**
- **unite local communities around common goals to preserve Hawai‘i’s culture and environment**

Kalako-Honokōhau NHP, N. Kona, Keolonahihi, N. Kona, cultural festival, Kaloko-Honokōhau NHP, N. Kona, Hono‘apo, Ka‘ū, NPS photos.

Significance of the Ala Kahakai NHT to the Hawaiian People and to the Entire Nation

Significance statements capture the essence of the trail's importance to the United States' heritage, including those significant to Native Hawaiians. Significance statements identify those resources and values that must be preserved to accomplish the trails' purpose.

The Ala Kahakai NHT contains the oldest and best remaining examples of the ancient *ala loa*, the major land route connecting the reaches of the coastal settlement zone² of most *ahupua'a* on the island of Hawai'i. The *ala loa* was essential to the movement of early Hawaiian's (*ka po'e kahiko*) from place to place.

What we will preserve, protect, and interpret:

- preserved and walkable remnants or the preserved alignment of ancient and historic trails
- sites, features, or places of significance situated along or connected by those remnants or along the alignment

² The coastal settlement zone includes the kahakai (nearshore fisheries and shoreline strand) and *kula kai* (shoreward plains). Maly quoted in NPS , 2004b, Part C, page C-8.

Trail clearing, Kealakehe High School, 'O'oma, N. Kona; Manini'owali, N. Kona; jeep trail, N. Kohala, NPS photos.





The Ala Kahakai NHT protects and provides access to natural, cultural, and recreational resources that together express the Native Hawaiian culture and way of life, past and present. Although the common concept of Hawaiian culture is what existed at the time that Kamehameha I unified the islands after western contact, the trail also recognizes the 1000 to 1500 years of Polynesian settlement before that.



What we will preserve, protect, and interpret:

- the trail landscape, comprised of cultural and natural resources that can be accessed by or appreciated from the trail — archeological resources, historic sites structures, cultural landscapes, traditional cultural properties, *wahi pana* (storied and sacred places), and the hundreds of named features³ such as stone formations geological landscapes, a tree or area of plant growth, *pu'u*, *kipuka*, water sources, and other natural resources
- stories, *hulas* (dances), and chants associated with places, place names, and sites along the trail
- access to preserved places where spiritual beliefs, customs, social values, subsistence resource gathering, agriculture, trade, and commerce uses are practiced past and present
- access to recreation areas (water and land-based activities) to practice sustainable recreation activities
- visitor experiences of Native Hawaiian ways of living



³ Hawaiians give names to places that signify cultural identity, whether as a resource, a physical landmark, or a marker of a past event.

Cultural site, N. Kohala; 1800 lava flow, Kalae Mano, N. Kona; petroglyph, 'Anaeho'omalu, NPS photos.

Along the coastal *ala loa* events took place that are significant to Hawaiian history and culture, from the arrival of Polynesians, to the rise of Kamehameha I and the unification of the islands into the Kingdom of Hawai‘i, to the coming of Captain Cook and Christian missionaries.

What we will preserve, protect, and interpret:

- places and stories of ancient events along the route (e.g. major events such as arrival of Polynesians, establishment of *ahupua‘a* system, establishment of *Kapu*, but also lesser known events associated with the many chiefs and chiefesses and commoners)
- places and stories of historic events along the route (e.g. major events such as the rise of Kamehameha I, arrival of Captain Cook, the December 1819 battle, end of the *Kapu*, arrival of missionaries as well as lesser known events associated with a specific place or person)



Captain Cook Monument, Ka‘awaloa, S. Kona;
Interpretive sign Kūki‘o, N. Kona, NPS photos.



The Ala Kahakai NHT is a dynamic, living cultural resource reflecting the values of an island people and their continuing responsible relationship with their community, land, and ocean resources.

What we will preserve, protect, and interpret:

- stories of stewardship and the cultural heritage of an island people including oral histories, newspaper accounts, diaries, archives, photographs
- remnants of the *ahupua'a* land management system that allowed for cultural and economic self-sufficiency and sustainable abundance
- connection of the *ahupua'a* system and cultural stewardship values and patterns to management of the Ala Kahakai NHT



Hiking on the 1800 lava flow, N. Kona, Mailekini Heiau; Pu'ukoholā Heiau NHS; Makahiki festival, Kaloko-Honokōhau NHP, N. Kona; (above) monk seal, NPS photos.

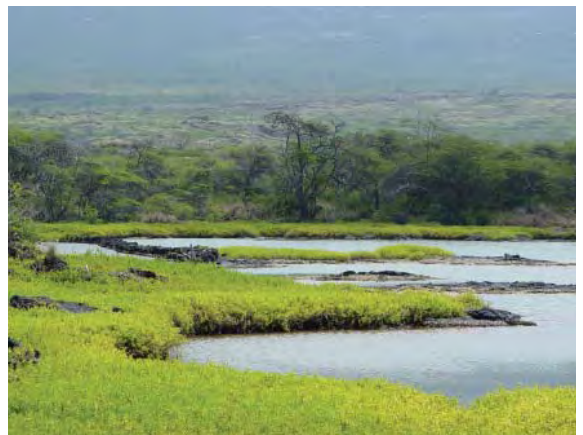
The Ala Kahakai NHT passes through and provides opportunities to protect significant natural areas and ecosystems with indigenous and endemic species along its route.

What we will preserve, protect, and interpret:

- anchialine pools
- caves
- endemic species habitat
- endangered and threatened species
- ecological zones
- lava forms and formations



'Opaeula (red shrimp); 'Opihi (limpet); Aimakapa fishpond
Kaloko-Honokōhau NHP, N. Kona; aquatic vegetation, NPS
photos.



Primary Interpretive Themes

Stories the trail tells; experiences it provides

Connections to the past: Walk in the foot steps of the *ka po'e kahiko* (people of old Hawai'i) along the Ala Kahakai.

The Ala Kahakai NHT contains the oldest and best remaining examples of the ancient *ala loa* and the sites connected by it, including remnants of several other ancient and historic trails, providing outstanding opportunities to explore parts of the Hawaiian trail system and follow in the footsteps of the Hawaiian ancestors.



Pōhuehue or beach morning glory, NPS photo.

Expressions of a unique culture: Experience the enduring lifestyles and values of the Hawaiian people.

The Ala Kahakai NHT links natural, cultural, and recreational resources that express Native Hawaiian culture and provide for practice, perpetuation, understanding, and appreciation of an enduring way of life. Experience of these resources can deepen personal values with respect to Native Hawaiian traditions and life styles.

Opportunities to experience significant events: Hawaiian history comes alive at specific sites along this trail.

The Ala Kahakai NHT provides the opportunity to experience events of significance to Hawaiian history and culture in the places in which they occurred.

Opportunities to exercise stewardship: Discover the satisfaction of being a responsible citizen-steward of this trail.

Management of the Ala Kahakai NHT provides opportunities to embrace and learn from an island people's continuing *kuleana* (responsible relationship) with their community, land, and ocean resources.

Opportunities to preserve the environment: Listen and learn as the landscape speaks its stories.

Animal and plant species, anchialine pools, landscapes, geology, ambient sounds, and night skies were essential components or considerations in the culture of early Hawaiians that require understanding and preservation today by all.

Historic Overview

An understanding of the Hawaiian land management system, the trail system, and the uses and evolution of the coastal *ala loa* provide the foundation for community management of the Ala Kahakai NHT.

HAWAIIAN LAND USE AND RESOURCE MANAGEMENT PRACTICES: DEFINITION OF THE AHUPUA‘A⁴

Over the generations, the ancient Hawaiians developed a sophisticated system of land and resource management which included larger districts and smaller regions. Of all the land divisions, perhaps the most significant management unit was the *ahupua‘a*. These were subdivisions of land usually marked by an altar (*ahu*) with an image or representation of a pig (*pua‘a*) placed upon it, thus the name *ahu-pua‘a* or pig-altar. *Ahupua‘a* may be generally compared to pie-shaped wedges of land that extended from the ocean fisheries (the wide section) fronting the land unit, to the mountains (the narrow section) or some other feature of geological significance such as a valley, hill, or crater. The boundaries of the *ahupua‘a* were generally defined by the topography and cycles and patterns of natural resources occurring within the lands (cf. Lyons, 1875; in “The Islander”).

The *ahupua‘a* were divided into smaller manageable parcels of land, controlled by a hierarchy of chiefs with the *konohiki* or lesser chief at the lowest level. Cultivated resources could be grown and natural resources harvested on these smaller parcels. As long as sufficient tribute was

offered and *kapu* (restrictions) were observed, the common people, who lived in a given *ahupua‘a*, had access to most of the resources from the mountain slopes to the ocean. These access rights were almost uniformly tied to residency on a particular piece of land, and earned as a result of taking responsibility for stewardship of the natural environment, and supplying the needs of one’s *Ali‘i* (cf. Malo 1951:63-67; Kamakau 1961:372-377; and Boundary Commission Testimonies – ca. 1865-1891). The *ahupua‘a* resources supported not only the people who lived on the land (*maka‘āinana*), but also contributed to the support of the royal community of regional and/or island kingdoms.

In ancient Hawai‘i, access to resources of the *ahupua‘a* was restricted. Generally, only residents of the *ahupua‘a* could use the fisheries of shallow nearshore waters and could gather resources and birds from the forests. Outsiders (for example, related kinsmen or friends) might be allowed by the local chief or by residents to use these community resource areas, but theoretically, permission had to be obtained. Also, residents had their own use rights to specific field plots and house lots. Travelers, thus, could pass through *ahupua‘a* on the *ala loa*, which circumscribed the entire island, but they did not have open access to the resources of the *ahupua‘a*.

With this Hawaiian form of district subdividing as a means of resource management planning, the land provided fruits and vegetables and some meat in the diet, and the ocean provided a wealth of protein resources. Also, in communities with long-term royal residents, divisions of labor (with specialists in various occupations on land and in procurement of marine resources) developed and were strictly adhered to.

⁴ Information on this section provided by Maly, 2005.



Weliweli, N. Kona, NPS photo

THE HAWAIIAN TRAIL SYSTEM⁵

Throughout the years of late prehistory, A.D. 1400s-1700s, and through much of the 1800s, transportation and communication within the Hawaiian kingdom was by canoe and by major trail systems. The major trails linked the 600 or so *ahupua'a* of the kingdom's six districts on Hawai'i Island. These districts were Kohala, Hamakua, Hilo, Puna, Ka'u, and Kona. Today, the ancient districts remain with the exceptions that Kohala, Kona, and Hilo each have two parts, north and south. (See Map 2, Districts of Hawai'i Island with Ahupua'a and Ancient Royal Centers).

Although the canoe was a principle means of travel in ancient Hawai'i, extensive cross-country trail networks enabled gathering of food and water and harvesting of materials for shelter, clothing, medicine, religious observances, and other necessities for survival. Ancient trails, those developed before western contact in 1778, facilitated trading between upland and coastal villages and communications between *ahupua'a* and extended families. These trails were usually narrow, following the topography of the land. Sometimes, over 'a'ā lava, they were paved with waterworn stones ('*alā* or *pa'alā*).

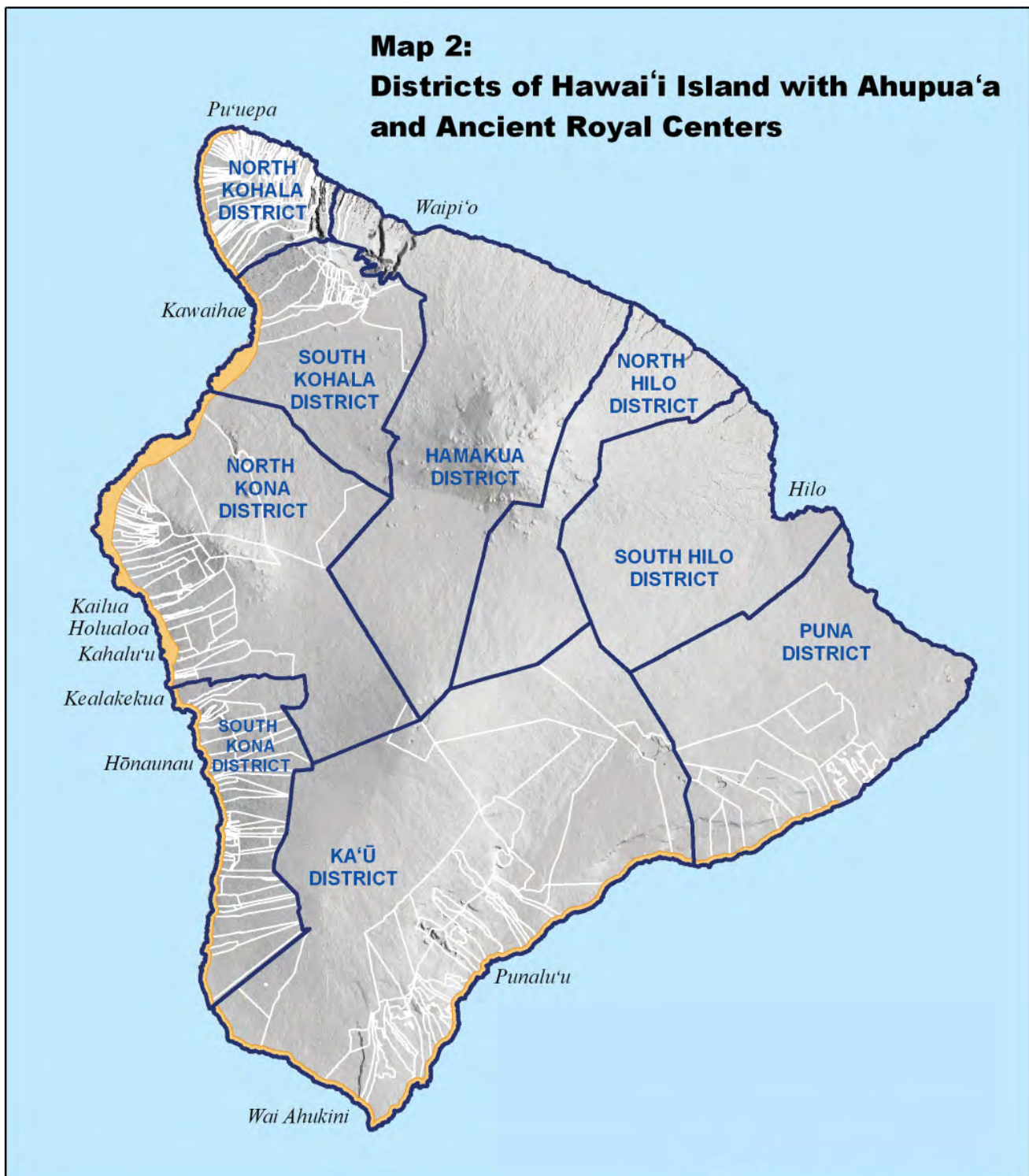
⁵ The following sections are taken from the *Ala Kahakai: National Trail Study and Final Environmental Impact Statement*, NPS, 1998.

Until the 1840s, overland travel was predominantly by foot and followed the traditional trails. By the 1840s, the use of introduced horses, mules and bullocks for transportation was increasing, and many traditional trails—the *ala loa* and *mauka-makai* trails within *ahupua'a*—were modified by removing the smooth stepping stones that caused the animals to slip. Eventually, wider, straighter trails were constructed to accommodate horsedrawn carts. Unlike the earlier trails, these later trails could not conform to the natural, sometimes steep, terrain. They often by-passed the traditional trails as more remote coastal villages became depopulated due to introduced diseases and the changing economic and social systems. Sometimes, the new corridors were constructed over the alignments of the ancient trails, or totally realigned, thus abandoning—for larger public purposes—the older *ala loa*. In addition to these modifications in trail location and type due to changing uses, trails were also relocated as a result of natural events such as lava flows, tsunami, and other occurrences. The Hawaiian trail system was and will remain dynamic.






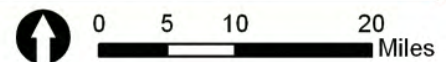
'Anaeho'omalu Petroglyph Preserve, NPS photo

**Map 2:
Districts of Hawai'i Island with Ahupua'a
and Ancient Royal Centers**



Legend

-  Ala Kahakai NHT Corridor
-  Hawai'i Island Districts
-  Ahupua'a



*Ala Kahakai National Historic Trail
7/2009*

TRADITIONAL USES OF THE *ALA LOA*

Community Interaction

Residents of the *ahupua'a* around the island of Hawai'i resided at various localities, generally within a quarter mile of the shore, for access to fresh water and fisheries; and in the uplands—to areas near the 3,000 foot elevation—where extensive fields of diverse crops could be cultivated. The *ala loa* connected these land units and settlements, encircling and crossing in-land over the entire island, and providing for economic and social interaction between people of adjacent communities and districts.

Royal Centers

Nearly all of the royal centers of the kingdom lay along the coastal *ala loa* at Waipi'o in Hamakua; Hilo Bay in Hilo; at Punalu'u and Wai'Ahukini in Ka'u; at Hōnaunau, Kealahakua, Kahalu'u, Holualoa, and Kailua in Kona; and Kawaihae and Pu'uepa (at 'Upolu Point) in Kohala (Cordy, 1997; 2000). (See map 2 for approximate locations.) In addition to the residences of the king and high chiefs, these centers each had major sacrificial temples (*luakini*), refuge areas (*pu'uhonua*), and sporting grounds, and in two cases royal mausoleums (the *Hale o Liloa* in Waipi'o and *Hale o Keawe* in Hōnaunau). Other large heiau were present in some centers. Large populations were focused around these centers which were used steadily over successive generations.

Chiefly Travel

Travel along the *ala loa* was often done for chiefly affairs. Messengers (*kukini*, or swift runners) were sent along the trails or by canoe to call in other chiefs for meetings, to call for tribute, to summon warriors in for battle, to gather in laborers to build public works projects such as temples, and to spy on rival chiefs. Occasionally, the ruler and the court circled the island to check on the state of affairs of production, population, or potential rivals, or to rededicate temples. This circuit might be at a brisk pace, or a leisurely movement from one of the favored royal centers to another over the period of several months. The highest chiefs (*Ali'i nui*) traveled the *ala loa* to reach their own residences and smaller courts in their own *ahupua'a*, which they occasionally used when not at the royal court.

Tax Collection

In addition, portions of the coastal *ala loa* were the route for the ruler's tax collectors during the Makahiki season, a ritual period spanning

approximately four months, from the last month of the dry season through the first three months of the wet season (from October or November to January or February). During this period, worship of Kū, the god of war, ceased. War was prohibited. Ceremonies at the *luakini heiau* were halted.

Other religious ceremonies and special sporting events were held honoring Lono, the god of Agriculture. For tax collection, a procession of priests, attendants, and athletes carried a wooden image of Lono clockwise around the island on the *ala loa* in a circuit of 23 days. In theory, the procession halted at the *ahu* or altar of each *ahupua'a*, collected tribute, and traveled on. In practice, several of the 600 *ahupua'a* most likely gathered their tribute in one place to expedite collection.

Historical narratives by 'I'i (1959) and Kamakau (1961) and testimonies before the Boundary Commission from 1873 to the 1890s also record that portions of the *Makahiki* route were inland rather than along the coastal trail through Kona and Kohala. The *mauka* (upland) route roughly coincides with the "*mauka* government road," now the Māmalahoa or "Belt Road."

Warfare

In times of war, travel to battle was either by canoe, the *ala loa*, or other trails. Local chiefs brought their warriors to the king's or high chief's residence, where the forces were gathered. An example of land travel occurred when Lonoikamakahiki gathered his forces to oppose his rebelling brothers, ca. 1640-1660. His Ka'u forces came up the mountain trail to Ahu a'Umi where they were met by Lonoikamakahiki and his Kona men. The army then descended into south Kohala and fought a series of battles up the *ala loa* to Kawaihae and up into Waimea, restoring Lonoikamakahiki's control over the island.

KAMEHAMEHA, ISLAND UNIFICATION, AND THE *ALA LOA*

Kamehameha I, high chief of Hawai'i Island, unified all of the islands of Hawai'i and reigned as the first king of a monarchy that would rule the Kingdom of Hawai'i through the reign of Kamehameha V. His life spans the precontact and historic periods.

Major events in Kamehameha's life occurred along the *ala loa*. He was born near the northern end of the Ala Kahakai NHT at 'Umiwai Bay near 'Upolu Point. At the time of Captain Cook's arrival

at Kealakekua Bay in 1779, Kamehameha was a military leader and high-ranking chief in the court of his uncle, Kalani'opu'u. After the death of Kalani'opu'u in 1782, Kiwala'o became king, and the Hilo chiefs were granted many of the lands of the kingdom. As a result, with Kamehameha as their leader, the Kona and Kohala chiefs revolted and fought the battle of Mokuohai at which Kiwala'o was slain. The kingdom broke into three: Kamehameha controlled Kona, Kohala, and Waipi'o; Keōua Ku'ahu'ula (Keōua) controlled Ka'ū and part of Puna; and their uncle, Keawema'uhili, controlled all of Hilo, and parts of Hāmākua and Puna (Kamakau, 1961).

For about a decade, Hilo and Ka'ū were in alliance against Kamehameha. When a falling out occurred, Hilo allied with Kamehameha. While Kamehameha was off-island battling the Maui kingdom, Keōua invaded Hilo, slew Keawema'uhili, and expanded his Ka'ū kingdom to include the former land of the Hilo kingdom (Cordy, 1997).

Kamehameha consolidated his rule of the island when Keōua was killed along the shoreline *ala loa* below Pu'ukoholā Heiau in 1791. Pu'ukoholā was Kamehameha's temple of destiny. Early in the days of his drive for supremacy of Hawai'i island, he began a reconstruction of Mailekini Heiau at Kawaihae for consecration to the family god Kuka'ilimoku, whose favor he sought. However, a great *kahuna* (seer) told him that victory over Keōua and eventual mastery of the Hawaiian Islands would be his if he built an immense temple to the war god at Pu'ukoholā on the crest of the hill just above Mailekini Heiau ('I'i 1959:17).

When the temple was finally completed in 1791, Keōua was among the chiefs invited by

Kamehameha to dedicate the temple and to discuss possible joint rule of a unified Hawai'i kingdom. When Keōua stepped ashore on the beach below Mailekini Heiau, a scuffle ensued, and he and the companions in his canoe were killed. Thus, the body of Keōua Kuahu'ula became the principal sacrifice on the altar of Pu'ukoholā. Kamehameha was now the sole ruler of Hawai'i Island, fulfilling the prophecy that required the building of the great temple. Kamehameha reconquered Maui, Lana'i and Moloka'i by 1794, and O'ahu in 1795. The unification of the Hawaiian Islands was complete in 1810 when Kaua'i diplomatically ceded to Kamehameha I.

Kamehameha I lived out his final years from 1813-1819 at the chiefly complex of Kamakahonu in Kailua along the *ala loa*.

THE *ALA LOA* AND ABOLITION OF THE *KAPU*

Kamehameha was succeeded by his son, Liholiho (Kamehameha II), and as co-regent for his short reign, Ka'ahumanu, Kamehameha I's favorite wife. Six months later the ancient religious system, the *Kapu* was abolished at Kamakahonu. Forty years had passed since the death of Captain Cook at Kealakekua Bay, during which time it became increasingly apparent to the chiefly classes that the *Kapu* system was breaking down; social behavior was changing rapidly and western actions clearly were immune to the ancient Hawaiian *kapu* (taboos). Kamehameha II sent word to the island districts, and to the other islands, that the numerous heiau and their images of the gods be destroyed.

The abolition of the *Kapu* in 1819 provoked the last historic battle to be staged along the *ala loa*. Leading a faction that opposed the overthrow



Pu'ukoholā Heiau NHS, S. Kohala, NPS photo

was a high chief, Kekuaokalani, who in December 1819, with his supporters took arms to overthrow Kamehameha II, his government, and to reinstate the *Kapu*. The ensuing battle took place at Kuamo'o and Lekeleke, south of Keauhou Bay. Kamehameha II's forces were victorious and Kekuaokalani was slain. The bodies of those who fell in the battle were interred along the *ala loa* and covered with rocks. The *pū'o'a* (stone mounds) remain to the present day.

EVOLUTION OF THE *ALA LOA*⁶

By the middle 1820s, significant changes in the Hawaiian Kingdom were underway. The missionaries, who arrived in May 1820, selected key stations on the island of Hawai'i from which to oversee and instruct the Hawaiian people in matters of the "spirit" and western life—these localities were accessed via the *ala loa* and smaller *ala hele* (paths) from neighboring *ahupua'a*. The mission stations generally coincided with the traditional chiefly centers, which by this time, were also developing as trade points with foreign vessels. As a result, and under the tutelage of the missionaries, Governor Kuakini and Chiefess Kapi'olani, instituted a program of public works on the island of Hawai'i. The development of trails to western-style roadways was initiated to facilitate access to mission stations, landings, and key areas of resource collection.

By the 1830s, the King (Kamehameha III) initiated a program of island-wide improvements on the *ala loa*, and in 1847, a formal program for development of the *alanui aupuni* (government roads) was initiated. By the early 1850s, specific criteria were developed for realigning trails

⁶ Information on this section provided by Maly, 2005.



Ala loa, NPS photo

and roadways, including the straightening of alignments and development of causeways and bridges. This system of roadwork, supervised by district overseers, and funded through government appropriations—with labor by prisoners and individuals unable to pay taxes in another way—evolved over the next 40 years. With the passing of time, emphasis was given to areas of substantial populations. Because of the on-going decline of the Hawaiian population, and the near abandonment of isolated communities formerly accessed by the *ala loa* and earlier *alanui aupuni*, the later government road between Kohala, Kona and Ka'u often diverged from, and abandoned, the older alignments.

In the later years of the Hawaiian monarchy, the need to define and protect Hawaiian trails and roadways was recognized, particularly in support of native tenants living in remote locations. Often these native tenants' lands were surrounded by tracts of land held by single, large landowners who challenged rights of access. In 1892, Queen Lili'uokalani and the Legislature of the Kingdom of Hawai'i signed into law an "Act Defining Highways, and Defining and Establishing Certain Routes and Duties in Connection Therewith," to be known as The Highways Act, 1892. The Act reads in part:

Section 1. This Act may be cited in all public proceedings as "The Highways Act, 1892."

Definition of Public Highway

Section 2. All roads, alleys, streets, ways, lanes, courts, places, trails and bridges in the Hawaiian Islands, whether now or hereafter opened, laid out or built by the Government, or by private parties, and dedicated or abandoned to the public as a highway, are hereby declared



Ramp 1871 trail, NPS photo

to be public highways.

All public highways once established shall continue until abandoned by due process of law... [p. 68]

Ownership of Public Highways in the Government

Section 5. The ownership of all public highways and the land, real estate and property of the same shall be in the Hawaiian Government in fee simple... [Chapter XLVII. An Act, October 15, 1892:69]

The Highways Act of 1892 is a critical legal tool used by the state to claim public trails, but may be subject to a legal challenge by a private landowner. It is subsumed in Chapter 264-1, HRS. Sections 2b to read

All trails, and other no vehicular rights-of-way in the State declared to be public rights-of-ways by the highways act of 1892, or opened, laid out, or built by the government or otherwise created or vested as no vehicular public rights-of-way at any time thereafter, or in the future, are declared to be public trails. A public trail is under the jurisdiction of the state board of land and natural resources unless it was created by or dedicated to a particular county, in which case it shall be under the jurisdiction of that county.

EFFECTS OF THE HIGHWAYS ACT OF 1892 ON THE ALA KAHAKAI NHT

Much of the Ala Kahakai NHT may prove to be in the public domain due to the Highways Act of 1892. All public accesses that can be verified to have been in existence prior to 1892 continue to be owned in fee simple by the state of Hawaii. This law applies even if the trail is not physically on the ground because in many instances trail segments have been destroyed over time due to various land uses or natural processes.

The burden of proof rests with the state under the Nā Ala Hele Trails & Access Program, which conducts an “abstract” of a particular land area or trail to document ownership. Qualified proof includes archeological reports, historic maps, historic accounts, early surveyor’s notes, land deeds, boundary testimonies, cultural impact assessments, or other verifiable sources of information that would lead to a determination of state ownership. Then the historic record must be reconciled with

a metes and bounds survey to confirm that the identified trail is the same alignment that was in existence prior to 1892. Through this process, an ancient or historic trail that otherwise runs through private property may be declared property of the state and in some cases is managed for use by the public. However, the research used to document the claim by the state may be legally challenged for a variety of reasons if the claim is adverse to the landowner. The trail ownership may ultimately be adjudicated in court. Until such time that a quitclaim deed is executed between the state and the adjacent private landowner, and it is recorded with the Bureau of Conveyances, the title to a specific trail feature may be subject to challenge over time by future landowners.

Restoring managed public access to a trail that has been confirmed to be state owned via a quitclaim deed or for which access has been negotiated through other forms of documentation, may require a cultural survey and potential preservation or re-construction, management, maintenance, and vehicular access, parking and signage plans that consider the perpetual commitment of staff time and funding resources. In most cases for these segments of coastal *ala loa*, there is currently insufficient state staff and funding for the pertinent planning and management. Therefore, the abstract data collected by Nā Ala Hele is documented on a database and, if a trail corridor or *ala loa* is still physically intact, may remain subject to unmanaged public use based on its location and its function relating to access.



Keopuka, S. Kona, NPS photo



BACKGROUND



Background

Introduction

As the NPS and its partners move forward to implement this trail management plan and to make the Ala Kahakai NHT a reality on the ground, a baseline of information gathered between 2002 and 2006 provides a starting point for understanding the range of resources to be protected and the requirements of laws and regulations that must be met. Coordination with other planning efforts will be required, also. Environmental information and impacts evaluation are fully discussed in the *Draft Comprehensive Management Plan & Environmental Impact Statement for the Ala Kahakai National Historic Trail*, August 2007 and the abbreviated final plan dated October 2008.

Status of Resources and Values

Although cultural and natural resources are treated here as discrete categories, to the Native Hawaiian they are bound together. A fish pond may be a natural resource where rare birds feed, but it is also a cultural property, a source of abundant fish which were farmed by their Hawaiian ancestors. A lava flow may be a geologic phenomenon, but it is also an expression of Pele, the volcano goddess. The trail's fundamental resources and values reflect the intricacy of this relationship.

Because a limited number of trail resources have been inventoried and protected, the CMP cannot meet the requirement of the National Trail System Act to identify “**all** natural, historical, and cultural resources” of the Ala Kahakai NHT (emphasis added). According to the Hawaii State Department of Land and Natural Resources’ Historic Preservation Division (SHPD), although only 5% of the island has been surveyed, an estimated 11,500 archeological and historic sites have been identified on the island of Hawai’i. Some natural resources have been inventoried in the national parks and in development plans, but the surveys are by no means complete or organized in a manner that trail administration and management can use.

This CMP does suggest the character and scope of resources to be protected along the Ala Kahakai

NHT. High potential sites and complexes listed on table 1 indicate the quality, types, and level of recognition of cultural and historical resources along the trail. Natural resources deemed significant to the Ala Kahakai NHT can be described, but the status of these resources at specific sites along the route will not be known until resource studies are complete and management plans are developed for individual trail segments. As these plans for trail segments are developed, more cultural and natural resources will be identified, protected, and interpreted to the public, as appropriate.

CULTURAL RESOURCES

There are several ways of categorizing and evaluating cultural resources for the Ala Kahakai NHT Trail: by eligibility to the National Register of Historic Places; by Hawaiian traditional culture; by National Park Service cultural management categories; and by requirements of the National Trails System Act, a mandate of this plan. Each of these systems is a means to ensure that the trail’s fundamental resources and values are protected, preserved, and made available to the public in appropriate ways. Trail administration and management must consider how each system applies in any given situation.

National Register of Historic Places

In the NPS, cultural resources are generally evaluated and protected through meeting the requirements of the National Historic Preservation Act (NHPA), which authorizes the secretary of the interior to recognize and develop protective strategies for properties with historic significance.¹ Resulting from that act, the National Register of Historic Places (NRHP) is the official list of properties recognized as historically significant. Under section 106 of the NHPA, the NPS, as a federal agency, is obligated to assess the effects of its undertakings on cultural resources. Section 110 of the NHPA requires the NPS to evaluate the eligibility for the national register of historic properties under its direct control or properties on which federal funds are expended. It is further obligated, even pending evaluation, to assure that historic properties are not impacted beyond the point at which they are no longer eligible. The NPS List of Classified Structures (LCS) database includes structures nominated to or eligible for the NRHP in each national park;

¹ The NPS organic act and the National Trails System Act are additional mandates for cultural resource preservation.

the Archeological Sites Management Information System (ASMIS) documents information about archeological resources, and the Cultural Landscapes Inventory (CLI) documents cultural landscapes and their associated features including historic structures, sites, and districts. Determining and establishing eligibility of the trail and sites along it is essential for protecting and preserving the Ala Kahakai NHT.

Evaluation for eligibility to the register assesses the quality of significance in American history, architecture, archeology, and culture present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that meet one or more of the following criteria:²

- A) Association with historic events, or
- B) Association with the lives of persons significant in our past, or
- C) Embodiment of a distinctive construction style, or
- D) Information potential

Several sections of the trail are already on the NRHP as individual properties, or are incorporated as a contributing property of an archeological district. Additional trail segments that still retain integrity of construction and setting would likely be deemed eligible under criterion A, B, C, or D.

The trail itself may best be classified as a district because it is a linear property that encompasses a variety of elements and features which are historically and functionally linked by a travel way³. Dozens of other cultural sites along the ancient route are already listed on the NRHP as significant under one or more of the register criteria. Most of the National Historic Landmarks associated with the

² See the Glossary under “National Register for Historic Places” for the full NRHP definitions of these criteria.

³ “Trails and roads require verification that the land nominated is the actual location of the trail. Eligibility requires integrity of setting and location. Boundaries commonly encompass the length and width of the byway and a margin of land, for example, 40 feet, on both sides. ... Boundaries may also include land that forms a historically important and intact setting, for example, the hillsides and rock formations rising from an important pass on a frontier trail. Where the continuity of a byway has been interrupted by nonhistoric development, segments retaining significance and integrity can be nominated together in a multiple property submission” (NPS, 1998c).



Trail northeast of Punalu'u, Barbara A. Schaefer photo

trail are, in fact, nationally significant under all four of the NRHP criteria. Many prehistoric and historic sites have been determined eligible by the State Historic Preservation Office, but have never been formally nominated to the national register. Still other cultural properties, probably in the hundreds, remain incompletely recorded and not yet evaluated (NPS, 1998c).

Table 1, a listing of known and at least minimally protected sites along the trail route, lists 11 sites on the NRHP, 6 of which are National Historic Landmarks; 1 National Historic Landmark District with several sites; 2 Historic Districts with several NRHP sites; 10 sites on the State Register of Historic Sites; and 5 state preservation areas set aside in historic preservation agreements with the State Historic Preservation Division.

Another class of properties associated with the Ala Kahakai NHT that may be significant under any or all of the NRHP criteria is the traditional cultural property (NPS, 1998b). A traditional cultural property (TCP) is a site or a place, that is eligible for inclusion on the national register because of its association with cultural practices and beliefs that are (1) rooted in the history of a community and passed down through the generations in oral literature or history, and (2) important to maintaining the continuity of the community's traditional beliefs and practices (NPS, 1998a).

Some TCPs along the Ala Kahakai NHT are sacred to the extent that they are worshipped with offerings in the present day. TCPs may include sites with significant legendary associations, associations with ancient religious practices, specialized subsistence gathering areas, and so on. Among Hawai'i Island's better known traditional cultural



"Ahu", Kaloko-Honokōhau NHP, N. Kona, NPS photo

properties are Mo'okini Heiau, associated with Pa'ao, the legendary priest/navigator from Kahiki, and South Point, a famous fishing ground, marked with a fishing *heiau*, Kalaka, reputedly used by Kamehameha. Mo'okini Heiau and South Point had associations with the *ala loa* (NPS, 1998a).

Hawaiian Traditional Culture

TCPs, because they are identified and evaluated with the NRHP criteria, tend to be physical, bounded places that a land manager can recognize as a kind of historic property. But in Hawaiian culture, intangible resources may be just as important as tangible resources, the small as important as the monumental, and all are sacred. The NPS recognizes that historic properties represent only some aspects of culture, and many other aspects, not necessarily reflected in properties as such, may be of vital importance in maintaining the integrity of a social group. However, the NRHP is not the appropriate vehicle for recognizing cultural values that are purely intangible, nor is there legal authority to address them under section 106 of the NRHP, unless they are somehow related to a historic property. Nonetheless, the NPS is committed to ensuring that such resources are fully considered in planning and decision making (NPS, 1998c).

In the Hawaiian culture, *mo'olelo* (traditions and historical narratives) are expressions of native beliefs, customs, practices, and history. In fact, in Hawai'i the very landscape is storied and filled with *wahi pana*⁴ (storied and sacred places) represented in both the tangible and intangible facets of traditional Hawaiian culture, and are not always represented by the largest constructions or man-made features. Each Hawaiian place name consists of descriptive words that suggest the presence of gods or their interactions with people, document specific events, or characterize a certain place. Such *wahi pana* stand out in traditions and the recollections of elder *kama'āina* (native born). While today many of those *mo'olelo* have been lost, some still remain, and from them we are able to gain insights into the history of the lands and people of the *'āina* (land). Along the route of the Ala Kahakai, many *wahi pana* can be viewed or experienced, some near at hand and others at a distance. Some examples of *wahi pana* along the Ala Kahakai NHT from north to south are described on page 24.

⁴ The discussion of *wahi pana* was prepared by Kepā Maly, December 2005.

Table 1: High Potential Cultural Sites and Complexes along the Ala Kahakai NHT

Publicly Known High Potential Site or Complex	Period Exemplified a. Ancient (pre-1778) b. Historic (1779-1892)	Recognition**
North Kohala		
Mo'okini Heiau; Kapakai	a,b	NHL, SM, NR
Kamehameha 'Akāhi, 'Āina Hānau (Kamehameha I Birthplace)	a	
Lapakāhi State Historical Park preserves remains of a precontact Hawaiian settlement that includes house sites, canoe sheds, shrines, and burial cairns. Agricultural fields are several miles inland.	a	NR, SHP, SR
South Kohala		
Pu'ukoholā Heiau, Mailekini Heiau, former Hale o Kapuni Heiau, Pelekāne, Kamehameha's "leaning post," and Pahukanilua (John Young's homestead)	a,b	NHS,NHL, NR
Puakō Petroglyph Archeological Preserve (Mauna Lani Resort)	a	NR, SPA
Kalāhuipua'a with its fishponds and small cave shelters (Mauna Lani Resort)	a,b	SPA
Waikoloa Petroglyph Preserve; Ke ahu a Lono ('Anaeho'omalū)	a,b	SPA
*Kahāpapa and Ku'uali'i fishponds at 'Anaeho'omalū		
North Kona		
*Kapalaoa complex and ponds		SR
*Wainānālī'i and Kīholo Fishpond complexes: storied traditional places	a,b	SR
*Kalaemanō salt works and habitation features (ceremonial significance)		SR
*Ka'ūpūlehu salt works and petroglyph fields (Kona Village Resort)	a,b	SPA
*Kūki'o to Kaulana includes fishponds, anchialine pools, and small clusters of permanent houses, associated graves, small heiau, and temporary shelters.	a,b	SR
Keāhole Point to Kaloko Ahupua'a includes small clusters of permanent houses, associated graves, small heiau, and temporary shelters including Wawaloli-'O'oma habitation cluster.	a,b	
Kaloko-Honokōhau National Historical Park (almost every type of precontact structure is represented along with some historic structures)	a,b	NHP, NHL, NR
Kamakahonu and 'Ahu'ena Heiau, Kailua (NHL) [King Kamehameha Hotel]	a,b	NHL, NR
Hulihe'e Palace	b	NR
*Kamoa-Keolonāhihi Point Complex		
*La'aloa		
Kahalu'u Royal Center (Ke'eku, Hapai Ali'ui, Kapuanoni Heiau, Kuemanu Heiau, walled house lots. Agricultural fields in the uplands)	a,b	SPA
Kamehameha III birthplace, Kauikeaouli stone, Keauhou	b	
Kāneaka, the Keauhou Hōlua Slide	a	NHL, NR
Lekeleke and Kuamo'o Battle Site and Burial Ground (1819) and features through Honua'ino.	b	
South Kona		
Kealakekua Bay Historic District, the site of the landing and death of Captain Cook includes Captain Cook Monument (reachable by boat), Hikiau Heiau, Ka'awaloa, Puhina o Lono (heiau at which Captain Cook's body was prepared for burial (Kealakekua Bay State Historical Park)	a,b	NR, SHP, SM
Moku'ōhai Battleground (1782)	b	
Pu'uhonua o Hōnaunau National Historical Park (place of refuge, ruler's residential area, royal mausoleum, 'Ale'ale'a heiau, and hōlua slides, Alahaka Ramp, and 1871 Trail)	a,b	NHP, NR
*Kapalilua Region: Ho'okena-Kauhakō, Ho'opūloa, Miloli'i, Okoe Bay, Honomalino and Kapu'a Sites		SR

* indicates *wahi pana*

** NHL = National Historic Landmark; NHS = National Historic Site; NHP = National Historical Park; NP = National Park; NR = National Register of Historic Places; SHP = State Historical Park; SM= State Monument; SR = State Register of Historic Places; SPA = state preservation area set aside in historic preservation agreements

Publicly Known High Potential Site or Complex	Period Exemplified		Recognition**
	a. Ancient (pre-1778) b. Historic (1779-1892)		
Ka'ū			
*Manukā Bay petroglyphs, habitation complex, hōlua slide			NR, SR
*Kaiakēkua and Keawaiki complexes			SR
*Wai 'Ahukini (royal residence)			SR
*Kā'iliki 'i-Wai 'ahukini fishing village complex, chiefly center			SR
Heiau o Kalalea; ancient canoe moorings, salt pans, and habitation sites at Ka Lae (the Point) [South Point National Historic Landmark District]	a		NHL District, SR
*Kalalea Heiau			
*Mahana Bay and Kapalaoa archeological district—canoe mooring, salt pans, fishhook manufacturing			
Punalu'u Ruins (remains include Punalu'unui heiau, a huge luakini temple)	a,b		
Ka'ū-Puna (all sites listed are within the Puna-Ka'ū Historic District in Hawai'i Volcanoes NP)			
Kūē'ē Village Ruins, Papalehau Ruins, Kālu'e Ruins, Halapē Ruins, Halapē House Platform, Keauhou Ruins-Heiau Cave, 'Āpua Point Ruins, Kealakomo Village, Pu'u Loa Petroglyphs, Lae'apuki and Kamoamoa Village Ruins (about 85% covered in 1988-95 lava flows), site of Waha'ula Heiau (covered by 1997 lava flow)	a,b		In NP, NR

Sources: Dunbar, Helene R. *Cultural Resources Assessment, Ala Kahakai, Hawai'i Island*, NPS, Pacific Great Basin Support Office, 1997 reviewed, amended with additions of *wahi pana* by Kepā Maly, Kumu Pono Associates LLC, December 2005, noted by an asterisk (*), and additional information from the NPS List of Classified Structures.

Along the coast of Kohala appear the uplands and the noted hills of Pili (Pu'u Pili) and Kalāhikiola, poetically described as "*nāpu'u hāele lua o Pili me Kalāhikiola*" (the hills of Pili and Kalāhikiola, which appear to march together across the land). When viewed from the coastal region, these two hills, which mark land divisions of North Kohala, seem to move with the traveler.

From Kohala, the trail enters Kona and the lava lands of Kanikū and Kanimoe. These flows are named for two goddesses who were turned to stone and who are believed to guard the trail to the present day. Continuing further south through Kona, the trail passes the *mauka* section of the ancient "*ke ala a ke akua*" (the pathway of the gods), and now commemorated in the place name, Kealakekua. And further south in Kona, the trail passes through the lands of Kolo and 'Ōlelomoana. The names of these *ahupua'a* recall that in ancient times, those who traveled the *ala loa* would sometimes forfeit their lives along the trails when caught by fishermen who were in need of bone for making new fishhooks.

Upon entering the district of Ka'ū, the trail crosses the '*ūlei* covered flatlands and looks upon the Pali Mōlīlele (cliff from which the albatross flies), but which man must climb to continue the journey into Ka'ū. And drawing near to Kīlauea (abode of the goddess Pele), the trail ascends via the sun-baked

plains of Kūkalā'ula, where only the *pu'ulena* winds blowing from Puna, could cool the weary traveler.

Upon departing Ka'ū and entering Puna, the trail passes through the *ahupua'a* called Kealakomo (literally, the entry path), the land which from ancient times, marked the end of one district and beginning of another.

Such places are among the thousands of cultural resources and values accessed by the Ala Kahakai. The stories associated with the myriad places along the trail bring to life the landscape and native experience for residents and visitors alike. (See the Bibliography for a list of studies and reports completed along the trail route that use native and primary sources to detail *wahi pana*, cultural landscapes, and traditional cultural properties.)

To begin to address the significance of the trail to contemporary Native Hawaiians, a cooperative agreement with the University of Hawaii's Department of Urban and Regional Planning (DURP) produced a cultural resource study for North Kohala. This study covered cartographic research on ancient and historic trails, Māhele and land claims, place names, and ethnographic information. The project continues with similar studies being conducted at South Kohala and North Kona. A research project on ancient and historic trails in South Kona and Ka'ū is also being conducted.

Map 3 Location of High Potential Cultural Sites and Complexes

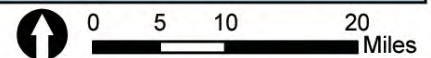


Legend

- Ala Kahakai NHT Corridor
- Districts
- Parks
- Wilderness
- High Potential Cultural Sites and Complexes
- Ahupua'a Mentioned in Text
- Puna Ka'ū Historic District

Roads

- Primary
- Secondary



Ala Kahakai National Historic Trail
7/2009

NPS Cultural Management Policies

The NPS defines a cultural resource as an aspect of a cultural system that is valued by or significantly representative of a culture or that contains significant information about a culture. To focus attention on management requirements within the NRHP property types, the NPS *Cultural Management Policies* recognizes the following resource types: archeological resources, historic structures, cultural landscapes, places of significance to contemporary cultural groups (ethnographic resources), and museum objects.

While management plans for national parks tend to address cultural resources in these five categories, for the Ala Kahakai NHT the distinctions between these resource categories are often blurred.

Resource categories are useful because they help organize cultural resources into a manageable number of groups based on common attributes. On the other hand, categorization often obscures the interdisciplinary nature of many cultural resources. A *heiau*, for example, may be associated with many artifacts, form the centerpiece of a cultural landscape, and occupy the site of a prehistoric fishing camp. In addition to this type of overlap, cultural resources might also embrace more than one category or classification system. A fish hook can be both an archeological resource and a museum object, just as a wall may be viewed as a discrete structure, the extension of a building, and part of a landscape. Taken a step further, historic districts can be formed by various combinations of cultural landscapes, structures, archeological resources, and resources important to contemporary cultural groups (NPS, 1998c). Nearly always, an individual Hawaiian cultural resource fits into more than one category. Implementation of the CMP may require that cultural resources be considered using the four resource categories relevant to the trail: archeological resources, historic structures, cultural landscapes and museum collections. Ethnographic resources are considered by this plan to be incorporated into the each of the other four categories.

National Trails System Act

The National Trails System Act requires that a comprehensive management plan identify high potential trail segments and sites. (See glossary for definition.) Table 1, map 3, and appendices E and F respond to this requirement.

High Potential Trail Segments – Oral traditions and eye-witness accounts recorded in the early 1800s, Māhele land records from 1848 to the mid-1850s, Boundary Commission transcripts from the 1870s to 1890s, and Kingdom maps from the 1880s to the early 1900s provide documentation of the route of the *ala loa* and its companion major trails that cross *ahupua'a* borders.

Generally trail documentation occurs in Hawai'i when a development or change in land use is proposed and the county requires developers to conduct surveys as a condition of approval. Unmodified remnants of the ancient *ala loa* and segments of historic trails including *alanui aupuni* have been documented in each district that the trail runs through in the general locations illustrated on the trail maps and described in Appendix F. Ancient and historic trail segments have been documented in each of the three West Hawai'i national parks (Tomonari-Tuggle, 2004). The maps depict conceptual alignments for these trail segments intended for planning purposes and are not intended for use as trail guides. Over time, as studies are conducted, trail segment locations will be confirmed.

High Potential Trail Sites –To date, no attempt has been made to document the archeology of the entire *ala loa*. As part of the CMP process, the Ala Kahakai NHT office initiated an archeological inventory project with the Hawaii State Historic Preservation Division (SHPD) to compile information from existing archeological reports within the trail corridor. This survey was not completed, and though unavailable for use in preparation of the CMP, its findings will be useful to trail management once the information is organized. High potential cultural sites are listed on table 1 and their general locations shown on map 3. Appendix E describes them further. Included in table 1 and map 3 as high potential sites, along with archeological and historic sites, is a sampling of traditional cultural properties and sites with on-going cultural significance such as *wahi pana* (storied and sacred places).

NATURAL RESOURCES

The status of the fundamental natural resources and values related to the Ala Kahakai NHT is not determined. Some limited information on these resources exists within the national parks. *The Pacific Island Network Vital Signs Monitoring Plan: Phase III Report* (NPS, 2005) identifies "focal

resources” for the Ala Kahakai NHT and assesses their status within the national parks. Focal resources, identified through cultural and local knowledge, scientific research, and judgements of park staff, reflect most of the fundamental natural resources and values identified for the trail. In general, from these sources we know that

- coastal strands, wetlands, anchialine (saline or brackish) pools, and fishponds provide habitat for endangered waterfowl, rare shrimp, native insects, plants, and many organisms that are harvested for food
- threatened and endangered species and habitats occur in several locations along the trail corridor
- nearshore marine areas adjacent to the trail are habitat for coral reefs and associated marine life used for traditional fishing and harvesting
- caves, while cultural resources, often contain unusual species adapted to the environment

The resources identified in the monitoring plan are listed below with brief descriptions of their status.

Focal Natural Resource Values

- Intertidal areas, beaches, and coastal strand communities
- Coastal lowland plant communities
- Fishponds and anchialine pools
- Traditional subsistence coastal fishing and harvesting⁵ and ethnobotanical resources
- Cave resources
- Threatened and endangered species

Intertidal areas, beaches, and coastal strand plant communities — Few sand beaches occur along the route of the Ala Kahakai NHT, and they are highly sought after for recreation, resort, and commercial development. Black and green sand beaches found

⁵ Traditional subsistence fishers are these who engage in limited fishing and gathering activities to feed their extended families identified with a specific region and associated through bloodlines and friendships which have developed over generations. Traditional fishing or harvesting is a sustainable practice and not a “blank check” for someone claiming Native Hawaiian blood to overharvest or misuse resources.



Hawksbill turtle; Honu‘apo, Ka‘ū; Hawaiian stilt, NPS photos

along the trail route in Ka'ū and within Hawai'i Volcanoes National Park are unique resources threatened by unauthorized removal of sand. Endangered sea turtles use beaches for nesting and Hawaiian monk seals (*Monachus schauinslandi*) frequently haul out on them to bask. Coastal strand plant communities occur in many areas along the Ala Kahakai NHT. These communities have aesthetic value and help prevent erosion of beach areas. Located on strips of coral or volcanic sand or limestone or volcanic rock adjacent to the shoreline, the coastal strand ecosystem contains species adapted to salt spray, storm surge and shifting substrate with limited water and nutrients, such as the coconut (*Cocos nucifera*), and various vines, grasses, and shrubs. Strand vegetation tends to be widespread throughout the Pacific [e.g., beach *naupaka* (*Scaevola sericea*), beach morning glory or *pohuehue* (*Ipomoea pes-caprae*), screw pine or *hala* (*Pandanus tectorius*)], though the Hawaiian Islands have several endemic species. Coastal strand communities have been significantly altered by human activity. Coastal development and the introduction of invasive species have severely restricted the ranges of some endemic strand species, though more cosmopolitan strand species have not been as affected.

Coastal lowland and lowland dry plant communities: Several herbland, grassland, and forest plant communities may occur in the area from sea level to approximately an elevation of

1000 feet within the trail corridor. Many of these native dry coastal and lowland plant communities have been destroyed by urbanization, off-road vehicle activity, fire, grazing, and encroachment by alien plant species. Kiawe (*Prosopis pallida*) has replaced the native flora in many former shrublands, and fountain grass (*Pennisetum setaceum*) poses a substantial threat to native *pili* (*Heteropogon*) grassland. Fountaingrass is "disrupting the more sparsely vegetated lowland native dry forests and shrublands that contain several endangered and many candidate endangered plant species" (Wagner, 1990).

Fishponds and anchialine pools: Native Hawaiians constructed fishponds to grow and harvest desired fishes in a sustainable manner. Aimakapā and Kaloko fishponds, found within Kaloko-Honokōhau NP in North Kona, are bounded by wetlands that provide critical habitat to two species of endangered waterbirds and several other resident or migrant species. Anchialine pools are standing waters in rocky (lava) basins that vary in salinity and exhibit tidal fluctuations, although in most cases they lack a surface connection to the ocean. Anchialine pools in Hawai'i provide habitat to many endemic organisms and have historically been used for drinking water. Birds, native bees, and damselflies utilize shoreline habitat and rely on many other protected or rare plants and animals associated with anchialine pools and wetland resources. These pools rely on groundwater,



Coral reef, Kaloko-Honokōhau NHP, N. Kona, NPS photo

primarily supplied by subterranean flow from the mountain slopes to the coast, for their freshwater input. Historic upslope water diversions and more recent real estate development have and continue to deplete these groundwater resources.

Traditional coastal fishing and harvesting resources: Shoreline and spear fishing are common marine activities that provide food in addition to gathering of salt, various seaweeds, *‘opihi* (limpets) from rocky shorelines, and endemic shrimp from anchialine pools. Tidepools and the coral reef also harbor an assortment reef fish, sea urchins, crustaceans, gastropods (snails), and seaweeds that traditional fishers and others harvest for consumption.

Cave resources: Caves are cultural resources and are managed under the Cultural Resource Management program by the national parks on the island of Hawai‘i. The lava geology of Hawai‘i has resulted in the formation of many caves and lava tubes used in ancient times for refuge, shelter, fresh-water collecting, burials, and other uses. Caves may contain burials and significant archeological resources associated with Native Hawaiian spirituality. Burial sites are sacred and not to be disturbed under traditional beliefs and by law. These cultural resources are also treated as natural resources in the NPS Inventory and Monitoring Program. Lava tubes may contain endemic cave-adapted insects and microorganisms, special geologically significant features, or mineral

deposits, creating value as natural resources. The Federal Cave Protection Act (1988) requires the NPS to inventory and protect significant cave resources. The Hawai‘i Cave Protection Act (2002) sets forth requirements for commercial entry and reporting of burials fines and provides criminal penalties for destruction or pollution of caves, disturbance of native organisms, and other adverse activities.

Sensitive, Threatened and Endangered Species: The U.S. Fish and Wildlife Service (USFWS) lists as federally endangered one mammal, four birds, two plants, two marine mammals, and one reptile that likely occur along the trail corridor. One reptile is listed as threatened. One damselfly and one anchialine pool shrimp are listed as candidate species for listing. In addition, Hawai‘i Volcanoes NP has listed four other threatened and endangered plants that may be found within the trail corridor.

The Hawaii Natural Heritage Program as of 2003 named 32 listed and candidate species, 16 species of concern, 13 natural communities, and 13 designated critical habitats for plants that may occur in the vicinity of the Ala Kahakai NHT.

WILDERNESS

According to the Wilderness Act of 1964, a wilderness is an area retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed to preserve its natural conditions. It has



Cave, N. Kona, NPS photo

outstanding opportunities for solitude or a primitive and unstructured type of recreation. Cultural resources must be managed in wilderness areas in accord with various cultural resource and historic preservation laws (NPS Management Policy 6.3.8).

About 14 miles of the Ala Kahakai NHT corridor from the west boundary of Hawai'i Volcanoes National Park to Keauhou are within a designated wilderness area and are subject to the Wilderness Act. If any action regarding the NHT is to occur within the wilderness area, according to the Wilderness Act, it must first meet the "minimum requirement" to ensure that it is necessary for preservation of the wilderness resource and does not adversely impact the wilderness character of the area. Should the action be deemed necessary and appropriate, then the "minimum tool" causing the least impact to the physical, cultural, and experiential resources would apply. (See the Glossary for definitions.)

TRAIL MAPPING

Currently, paper and digital maps exist in varying scales. Maps generated for this CMP were digitized into a Geographical Information System (GIS) format from maps in the 1979 County of Hawaii *Inventory of Public Shoreline Access*. This information was augmented by land title abstract information from Nā Ala Hele dated 2003. Even though most of the digitized trail segments have not been verified in the field, this effort constitutes the first attempt to bring together route information for the entire shoreline corridor. The map database generated for this project will be meshed with databases and metadata from other projects to provide one reliable source of information for all trail-related resources.

In addition, Ala Kahakai NHT administration is working with Redlands University Environmental Studies Program to develop a GIS internet mapping site to serve as a tool for community-based trail management. Currently the program is developing a data base for inventory and monitoring of cultural and natural resources occurring within the trail corridor. Eventually, access, safety and interpretive information will be made available to the public via the Ala Kahakai NHT internet mapping site.

This information will be made available to partners and stakeholders, as appropriate. Continued maintenance and augmentation of the GIS developed for this CMP could be accomplished through an arrangement with the NPS Pacific



Paved trail to Hookena, NPS photo
Hikers along the trail between Keawaiki and 'Anaeho'omalu Bay, Barbara A. Schaefer photo

West Region-Honolulu or an agreement with a university or another agency. The Ala Kahakai NHT administrative office has a computer workstation equipped with the appropriate software to prepare and print maps.

GAPS IN INFORMATION AND RESEARCH NEEDS

Information for the CMP has come from studies available at the four national parks, other readily available publications, and knowledgeable individuals in the public and private sectors. But the fact is that almost none of the trail has been studied systematically, and information that does exist is widely scattered. Much remains to be learned. Many of the required inventories and studies listed below will be completed in phases as trail segments are incorporated into the Ala Kahakai NHT and further NEPA and Section 106 compliance completed. The following list gives an idea of the gaps in knowledge that exist and the research needed to fill the gaps:

- identification of unaltered and verified ancient and historic trail along the entire route
- overview of resources and landscapes of significance to contemporary Hawaiians (a general focus on getting ethnographic data that may include surveys, transect walks, rapid ethnographic assessment procedures, community mapping, focus groups, interviews, and oral histories associated with places along the trail)
- cultural resource overview and assessment (focused on gathering existing information together)
- cultural resource inventories including archeological sites, cultural landscapes, and traditional cultural properties, and national register evaluations
- historic structure inventory and national register evaluation
- natural resource overview and assessment (focused on gathering existing information in one database)
- vegetation inventories
- wildlife inventories
- cave inventories
- anchialine pond inventory
- facility and infrastructure study
- visual survey and analysis to identify scenic resources of the trail corridor
- assessment of needs for fire management in nonfederal areas

LEGAL AND POLICY REQUIREMENTS

Federal

Aside from the National Trails System Act, as amended, other federal laws apply to trail management. All trail resources and opportunities for visitor enjoyment must be managed in compliance with a large body of legal and policy requirements intended to adequately protect the nation's natural and cultural heritage and opportunities for enjoyment of that heritage. Federal laws, regulations and planning direction applicable to this CMP include, but are not limited to the following:

Antiquities Act of 1906 (16 USC 431-433) provides for protection of historic, prehistoric, and scientific features on federal lands, with penalties for unauthorized destruction or appropriation of antiquities; authorizes the President to proclaim national monuments; authorizes scientific investigation of antiquities on federal lands subject to permit and regulations.

Archeological and Historic Preservation Act of 1974 (AHPA, 16 U.S.C. 469-469c) provides for the preservation of significant scientific, prehistoric, historic, and archeological materials and data that might be lost or destroyed as a result of federally sponsored projects; provides that up to one percent of project costs could be applied to survey, data recovery, analysis, and publication.

Archeological Resources Protection Act of 1979 (ARPA, 16 USC §470a), protects archeological resources and sites on federal lands and Indian lands and fosters increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals having collections of archeological resources and data obtained before October 31, 1979.

American Indian Religious Freedom Act of 1978 (AIRFA, 42 USC §1996) recognizes the rights of American Indian, Eskimo, Aleut, and Native Hawaiians to exercise their traditional religions, including limited access to sites, use and possession of sacred objects, and freedom to worship through ceremonies and traditional rites.

Coastal Zone Management Act of 1972 (CZMA, 16 USC 1451-1464) establishes a voluntary national program within the Department of Commerce to encourage coastal states to develop and implement

coastal zone management plans with cost-sharing grants to states to develop their programs. With federal approval of their plans, grants would be awarded for implementation. State plans must define boundaries of the coastal zone, identify uses of the area to be regulated by the state, the mechanism (criteria, standards or regulations) for controlling such uses, and broad guidelines for priorities of uses within the coastal zone. Federal actions must be consistent with each approved state plan. Appendix D contains the assessment of consistency with the State of Hawaii Coastal Zone Management Program for this CMP.

Endangered Species Act of 1973 (16 USC 35) requires identification and promotion of the conservation of all federally listed threatened, endangered, or candidate species and their habitats within federal administrative boundaries. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service are the lead agencies in matters pertaining to federally listed threatened and endangered species. The National Park Service cooperates with those agencies in activities such as the delineation of critical habitat and recovery zones on park lands and participates on recovery teams.

Federal Cave Protection Act of 1988 (16 USC 4301-4310) protects significant caves on federal lands by identifying their location, regulating their use, requiring permits for removal of their resources, and prohibiting destructive acts. The Act requires that caves be considered in the preparation and implementation of land management plans, and allows for cave location to be kept confidential.

National Environmental Policy Act of 1969 (NEPA, 42 USC 5) requires a systematic, interdisciplinary approach to federal actions which will insure the integrated use of natural and social sciences and environmental design arts in planning and in decision-making which may have an impact on man's environment.

National Historic Preservation Act of 1966 (NHPA, 16 USC 470) as amended declares a national policy of historic preservation on federal land, including the encouragement of preservation on state and private lands; authorizes the secretary of the interior to expand and maintain a National Register of Historic Places including properties of state and local as well as national significance (Section 110); establishes the Advisory Council on Historic Preservation (ACHP); requires federal agencies

to consider the effects of their undertakings on national register properties and provide the Advisory Council (ACHP) opportunities to comment (Section 106). Amendments include properties eligible for as well as listed in the national register and emphasize the interests and involvement of Native Americans and Native Hawaiians.

National Park Service Organic Act (16 U.S.C. 1 2 3, and 4) created the National Park Service (NPS) within the U.S. Department of the Interior. The Organic Act charges the NPS with a dual mandate to promote and regulate the use of the national parks "by such means and measures as conform to the fundamental purpose to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment for the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

Native American Graves and Repatriation Act of 1990 (25 NAGPRA, USC 3001 et.seq.) protects human remains and associated funerary objects on federal lands, and provides a process for museums and federal agencies to return certain cultural items—human remains, funerary objects, sacred objects, and objects of cultural patrimony—to lineal descendants, culturally affiliated Indian tribes, and Native Hawaiian Organizations.

Wilderness Act of 1964 (16 U.S.C. 1131-1136, 78 Stat. 890) provides criteria for determining suitability and establishes restrictions on activities that can be undertaken on a designated area. They are to be managed "for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness...." No roads or structures may be built. Vehicles and other mechanical equipment may not be used.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994, requires each federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Executive Order 13007, Indian Sacred Sites, 1996, requires federal agencies to (1) accommodate

access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites. (Although this order does not seem to apply to sites considered sacred by Native Hawaiians, it does offer an approach for considering these sites.)

NPS Management Policies 2006 provides policies on how the National Park Service will meet its park management responsibilities under the 1916 NPS Organic Act.

NPS Director's Orders, such as D.O. #12 that guides preparation of Environmental Impact Statements (EIS) and D.O. #28 that guides cultural resource management.

State and County Land Use Regulation⁶

Hawaii's land tenure, use and access laws are based on and carried over from laws promulgated by the Kingdom of Hawai'i. State land use laws passed in the early 1960s regulate growth. Land use planning and control are exercised at two levels of government: state and county. In addition, federal law requires Army Corps of Engineers permits for uses in coastal areas and wetlands.

⁶ Most information for this section on land use regulation is taken from the *National Trail Study and Environmental Impact Statement for the Ala Kahakai*, 1998, pp. 53-55.

State Land Use Regulations. The state of Hawaii controls land use by three means: the Land Use Law, the Hawaii Environmental Impact Statement Law, and the Coastal Zone Management Act (CZMA).

Land Use Law: The State Land Use Commission (LUC) has classified all lands in the state into one of four land use categories – Urban, Rural, Agriculture, and Conservation. The counties are responsible for regulating use in the Urban, Rural, and Agricultural Districts. Jurisdiction over uses in the Agriculture District is shared with the LUC in certain instances. The state, through the Board of Land and Natural Resources (BLNR), regulates land use in the Conservation District, which also includes all nearshore, ocean land below the high water mark. Land use regulation must conform to the state plan according to Act 100. Conformance is difficult to measure because the Act's provisions are general and diverse.

Hawaii Environmental Impact Statement Law: Chapter 343, Hawaii Revised Statutes (HRS), requires an environmental assessment (EA) or an environmental impact statement (EIS) for developments in the State Conservation District and in the Special Management Area (SMA) and shoreline setback (coastal areas regulated by the counties), for projects using state or county lands or funds, and other specified categories of use. The EA or EIS should include a summary description of the affected environment including any archeological resources present on the property. Any structure,



'Upolu, N. Kohala, NPS photo

including ancient trails, which are over fifty years old, falls under the definition of “historic property” in chapter 6E, HRS, Hawaii’s Historic Preservation Law. The State Historic Preservation Division of DLNR is responsible for evaluating the values of the historic resource and determining whether preservation or protection of the resource is necessary. The land use regulating agency may impose conditions which require the establishment or maintenance of public rights of way through the affected property.

Hawaii Coastal Zone Management Act of 1977: Coastal Zone Management: the national Coastal Zone Management Act (CZMA) requires direct federal activities and development projects to be consistent with approved state coastal programs to the maximum extent practicable. Also, federally-permitted, licensed, or assisted activities occurring in, or affecting, the state’s coastal zone must be in agreement with the Hawaii CZM Program’s objectives and policies. Federal agencies cannot act without regard for, or in conflict with, state policies and related resource management programs that have been officially incorporated into state CZM programs (Code of Federal Regulations, 15 CFR 930). The counties have the authority to establish the SMA boundaries and adopt permit requirements. Appendix D contains the assessment of consistency with the CZMA for this plan.

County Land Use Regulations. Hawaii County regulates the private use of land in state land use districts of Agricultural, Rural, and Urban in two primary ways: by zoning, which regulates the intensity and type of use permitted on private land and must conform to the County General Plan; and by subdivision controls, which regulate the intensity of single-family residential development. Through the variance process, developments are often permitted on conservation land.

Other Regulatory Provisions

Overlaying the general state regulatory framework are special laws which apply to coastal and shoreline development, resource protection, or specifically address trails and public access issues. Brief summaries of relevant statutes, administrative rules, and other regulatory considerations are provided below:

Historic Preservation Program (HRS 6E- 3): establishes within the Department of Land and Natural Resources a division to administer a comprehensive historic preservation program to undertake duties to include the following: develop an on-going program of historical, architectural and archeological research and development; acquire, preserve, restore and administer historic or cultural properties; develop a statewide survey and inventory to identify and document historic properties, aviation artifacts and burial sites;



Keolonahihi , N. Kona, NPS photo

prepare information for the Hawaii and national registers of historic places; prepare, review and revise the state historic preservation plan; provide technical and financial assistance to the counties and public and private agencies involved in historic preservation activities; coordinate the evaluation and management of burial sites; acquire burial sites to be held in trust; regulate archeological activities throughout the state; develop and adopt, in consultation with the Office of Hawaiian Affairs native historic preservation council, rules governing permits for access by Native Hawaiians and Hawaiians to cultural, historic and pre-contact sites and monuments. Section 6E-11 establishes penalties for violations of the state preservation law.

Hawaii Administrative Rules (HAR) 13-13-300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains: establishes Island Burial Councils and procedures for proper treatment of Burial sites and human skeletal remains.

Chapter 343, Act 50, HRS: prescribes the requirement of assessment of cultural practices and resources in environmental impact statements. The state of Hawaii Office of Environmental Quality Control has developed guidelines and a protocol for evaluating impacts to the practices and beliefs of cultural or ethnic groups (see Appendix A).

Legacy Land Program (HRS 173A-5): provides for the acquisition of lands including easements for parks, coastal areas, beaches, and ocean access, and cultural and historical sites.

Chapter 205A-41, HRS: contains additional provisions establishing a shoreline setback law for the state. The law authorizes the counties to establish minimum shoreline setback requirements of 20 or 40 feet depending on the size of the parcel. Development and construction proposed within the shoreline setback area are subject to variance procedures administered by the counties. Shoreline setback variance conditions of approval have also been used to obtain public access dedications to and along the shoreline.

Chapter 46-6.5, HRS: mandates that counties adopt ordinances to require the dedication of rights-of-way or easements for pedestrian public access from public roads to beach and mountain recreation areas. This requirement applies to land that is proposed for subdivision into six or more

units. The County of Hawaii adopted Ordinance No. 96-17 to comply with this mandate.⁷

Chapter 115, HRS: guarantees the right of public access to the sea, shorelines, and inland recreational areas, and transit along the shorelines and provides for the acquisition of land for the purchase and maintenance of public rights-of-way and public transit corridors. Counties have the primary authority and duty to develop and maintain public access to and along shorelines.

Chapter 198D, HRS: establishes the Hawaii statewide Nā Ala Hele Trail and Access Program. The DLNR is directed to “plan, develop, acquire land or rights for public use of land, construct, and engage in coordination activities to implement the system, in accordance with this chapter.” The Nā Ala Hele Trail and Access Program is established in DLNR’s Division of Forestry and Wildlife. Currently, trails that are determined to have value for managed public access in a manner that would not inadvertently jeopardize sensitive cultural features, and that have a capacity for management by either Program staff or through an agreement with a private landowner, may be added to the legal jurisdiction of the Program and subject to Chapter 13-130, Hawaii Administrative Rules.

Shoreline Protection Act of 1975: in response to the Coastal Zone Management Act of 1972, a Special Management Area (SMA) program was established. The SMAs extend a minimum of 100 yards inland from the shoreline vegetation or debris line to ensure that proposed developments minimize adverse environmental impacts to coastal resources, protect public recreation and wildlife resources, and ensure adequate public access to these areas. County SMA permit conditions have been the primary source of public access easements and dedications that have been added to the public shoreline access inventory. The SMA requirements apply only to those lands proposed for development, and the conditions of permit approval may not be enforced if development does not occur.

⁷ In practice, the county prefers not to accept dedication of easements because that would obligate it to assume the costs of improvements and maintenance, for which it has no provisions. Instead, generally, the easement is recorded on the final subdivision map with the Bureau of Conveyances and subsequently noted on Tax Maps. The county planning department may or may not require the developer to build the access. Even if the accesses are installed, they may not be maintained by the private landowners, leaving them overgrown and potentially unlocatable on the ground.

The Public Access Shoreline Hawaii (PASH): this decision, resulting from the implementation of the CZM and the SMA, rendered by the Hawaii Supreme Court in 1995, unanimously upheld the validity of Native Hawaiian gathering rights that were asserted by PASH and other individuals during the SMA permit proceedings before the County of Hawaii Planning Commission. The decision spoke to the standing of Hawaiian gathering rights and the government's duty toward protecting those rights (County of Hawaii, 2001).

Hawaii County Public Access, Open Space and Natural Resources Preservation Fund: often referred to as the 2% fund, was approved by ballot initiative during the 2006 General Election. It sets aside 2 % of property tax collections—around \$2.6 million—for purchase of lands deemed by an appointed commission to be worthy of preservation (Command, 2007). Of the 17 properties identified by the commission, 6 are along the route of the Ala Kahakai NHT. These funds were used to help preserve the Honu'apo Fish Pond site.

RELATIONSHIP TO OTHER PLANS

The following plans or planning efforts have influenced the preparation of this Comprehensive Management Plan or may be modified based on the information presented in this plan. The list is not exhaustive.

National Park Service

Archeological Overview and Assessment for the Three West Hawai'i Parks, 2004

Curatorial Facilities Strategy, Cultural Resources, Pacific West Region, May 2006.

Environmental Assessment, Assessment of Effect: Reestablishment of the Historic Scene at Pu'ukoholā Heiau National Historic Site, April 2004

Fire Management Environmental Assessment for Hawai'i Volcanoes NP, November 2004

Fire Management Plan Pu'ukoholā Heiau NHS, September 2006

General Management Plan for Pu'uuhonua o Hōnaunau NP, 1977

General Management Plan for Kaloko-Honokōhau NHP, 1994

Ka'ū Coast, Hawai'i Reconnaissance Survey, June 2006

Management Plan for Hawai'i Volcanoes NP (1975). Hawai'i Volcanoes NP is developing a new GMP that can consider plans for the Ala Kahakai NHT.

Native Hawaiian Use of Hawai'i Volcanoes National Park, A Historical and Ethnographic Overview



Mauna Kea Beach Hotel, S. Kohala, NPS photo



Kawaihae Harbor, S. Kohala, NPS photo

Pacific Island Network Vital Signs Monitoring Plan, December 2005

Park Museum Collection Plan (servicewide), March 2007.

West Hawai'i Parks Museum Management Plan, Kaloko-Honokōhau, Pu'ukoholā Heiau, Pu'uhoonua o Hōnaunau, Ala Kahakai, February 2004.

Wilderness Management Plan Hawai'i Volcanoes National Park (draft), January 2005. The Ala Kahakai NHT could be considered in the final plan.

State

Hapuna State Park Plan: Completed in 2002, this plan calls for an expansion of the current management area. The NHT is recognized in this plan as the state alignment of the Ala Kahakai.

Kekaha Kai State Park Plan: This plan provides the state with management and development guidance over the next several years, acknowledges the Ala Kahakai NHT, and states that a historic route will be negotiated with State Parks division.

Proposed Kīholo State Park: "If established, Kīholo State Park would comprise all public lands *makai* of the Queen Ka'ahumanu Highway within the *ahupua'a* of Pu'u Anahulu and Pu'u Wa'awa'a. In

addition, a wild coastline park at Kīholo would insure retention of the natural open space and the open coastal views from upland vantage points. This area includes approximately 8.5 miles of undeveloped coastline, 4,357 acres of State-managed coastal lava plain, and 88 acres of private in-holdings" (State of Hawaii, 2003). Establishment of a state park requires a master plan for which the state is seeking funding. In the meantime, the *Management Plan for the Ahupua'a of Pu'u Wa'awa'a and the Makai Lands of Pu'u Anahulu* states several planning and management objectives intended to provide a framework for management of this area for a 10-year period beginning in July 2003.

Statewide Comprehensive Outdoor Recreation Plan (SCORP): identifies statewide recreation demands and issues and presents a strategic plan to address them. It is required by the Land and Water Conservation Fund Act of 1965 to qualify for federal grants for outdoor recreation projects and is to be updated every five years. Hawaii's last SCORP was approved in 2003.

Private

Kohanaiki Development: Plans for this private development of the *ahupua'a* of Kohanaiki *makai* of Queen Ka'ahumanu Highway include residential uses, an 18 hole golf course, a public shoreline park with facilities and camping, and an alignment of the Ala Kahakai NHT as the existing shoreline trail.



Ancient Trail, Hōkūli'a Golf Course, S. Kona, NPS photo



Trail through the Mauna Lani Bay Hotel, NPS photo

O'oma Development: Planning continues for this private development. Adjacent and north of Kohanaiki, it includes residential uses, a public shoreline park with facilities and camping, and an alignment of the Ala Kahakai NHT as the existing shoreline trail. The proposed plans for 'O'oma preserve the Māmalahoa Trail in place with a buffer on both sides. The historic Māmalahoa Trail is approximately 10 feet wide within a 30-foot wide easement and runs north-south through the property. A buffer of 50 feet on both sides of the trail will remain undisturbed. Therefore, the Māmalahoa Trail with the buffer will provide a 110-foot wide open space corridor, which is approximately 2,520 feet long, and includes approximately seven acres. There will also be an additional 60-foot building setback from the buffer on both sides. The Ala Kahakai National Historic Trail is located within the property area designated as shoreline park and coastal preserve. The 18 acres along the shoreline will be designated as a public shoreline park and will be an extension of the beach parks planned at The Shores at Kohanaiki and NELHA (National Energy Laboratory of Hawaii). The shoreline park will include parking, comfort station, and a cultural public-use facility. These park buildings will be located approximately 330 feet away from the shoreline and outside of the shoreline setback area. The 57 acres *mauka* of the shoreline park will be designated as coastal preserve because this area contains known archeological and cultural sites, including burials. To protect the integrity of these sites, the coastal preserve will remain generally undisturbed and development will be prohibited, with the exception of trails between the community and the shoreline.

Kūki'o Development Plan: Kūki'o is a private residential development that has made accommodation for public access along the shoreline. An alignment for the Ala Kahakai NHT on sand was defined with the use of GPS with representatives from the development. The development preserves other historic trails as well.

Ka'ūpūlehu Development Plan: Affiliated with the Kūki'o development, this private residential development has made accommodation for public access along the shoreline. A route for the Ala Kahakai NHT was required by the county as a development permit condition.

Waikoloa Development Plan: Several projects are planned for this resort community. Kōlea is currently under construction and plans for units on land owned by Lonomakua Co.

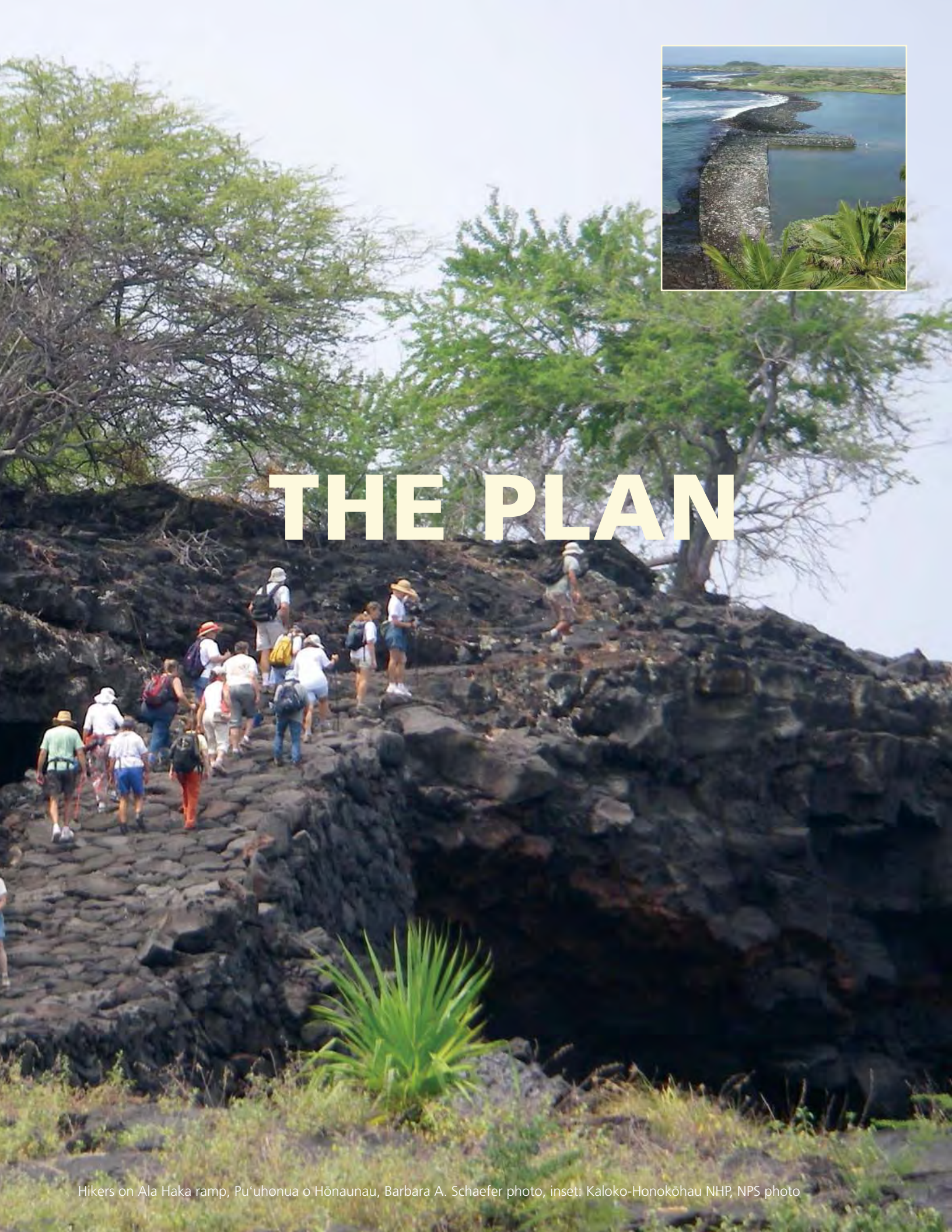
Mauna Lani Resort Projects: A public pathway exists through these private residences (Kamalani, 49 Black Sand Beach, and Pauoa Bay) and may become part of the Ala Kahakai NHT.

Māhukona Resort Development: Proposed by Surety Kohala in the 1990's, the project consists of a lodge with about 80 rooms, a restaurant, a spa, swimming pool and golf course. It would also feature between 120-150 condominium units as well as 90 to 120 one-acre lots. The project would include a wastewater treatment facility, a 17-acre historic park, and a shoreline trail.



Hāpuna Beach, S. Kohala, NPS photo

THE PLAN



Comprehensive Management Plan

Purpose and Need for the Plan

Congress added the Ala Kahakai National Historic Trail (NHT) to the National Trails System on November 13, 2000. The legislation authorizing the trail identifies an approximately 175-mile portion of prehistoric *ala loa* (long trail) on or parallel to the seacoast extending from 'Upolu Point on the north tip of Hawai'i Island down the west coast of the island around Ka Lae (South Point) to the east boundary of Hawai'i Volcanoes National Park. A conceptual depiction of the trail as a corridor, "Vicinity Map and Location of the Ala Kahakai," was contained in the January 1998 *Ala Kahakai National Trail Study and Environmental Impact Statement (Feasibility Study)* and is represented in map 1. (Map 1 also depicts the priority areas on which focus will be placed for the approximate 15-year life of this plan.) The Ala Kahakai NHT, as authorized by Congress, combines surviving elements of the ancient and historic coastal *ala loa* with segments of later *alanui aupuni* (government trails) that developed on top of or parallel to the traditional trails, and more recent pathways and roads that create links between the historic segments. The National Park Service administers the Ala Kahakai NHT.

PURPOSE OF THE PLAN

National trail comprehensive management plans are intended to be long-term documents that articulate a vision for the future of the trail, including the management philosophy and the framework to be used for decision-making and problem solving. This comprehensive management plan (CMP) will provide guidance for approximately the next 15 years, or until it is otherwise revised and updated.

This CMP establishes the administrative objectives, policies, processes, and management guidelines needed to fulfill the preservation and public use goals for the Ala Kahakai National Historic Trail (NHT) in accordance with the National Trails System Act (16 USC 1244, § 5(f)). (See Appendix B.)

This Act requires development of a comprehensive plan "for the acquisition, management, development, and use" of the national historic trail. The Act requires that this plan include the following items:

- Specific objectives and practices to be observed in the management of the trail, including identification of all significant natural, historical, and cultural resources to be preserved, details of anticipated cooperative agreements with government agencies or private interests, a carrying capacity assessment, and a plan for its implementation,
- The process used to implement the marking requirements established in § 7(c) of the Act,
- A protection plan for high potential sites and route segments¹, and
- General and site-specific development plans and their anticipated costs.

In addition, Public Law 106-509, titled "An Act to amend the National Trails System Act to designate the Ala Kahakai Trail as a National Historic Trail," (see appendix A) includes these special requirements:

- No land or interest in land outside the exterior boundaries of any federally-administered area may be acquired by the U.S. for the trail without the consent of the owner of the land.
- Communities and owners of land along the trail, Native Hawaiians, and volunteer trail groups are encouraged to participate in the planning, development, and maintenance of the trail.
- Affected federal, state and local agencies, Native Hawaiian groups, and landowners shall be consulted in the administration of the trail.

¹ As defined by the Act, high potential historic sites means "those historic sites related to the route, or sites in close proximity thereto, which provide opportunity to interpret the historic significance of the trail during the period of its major use. Criteria for consideration as high potential sites include historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion."

High potential route segments means "those segments of a trail which would afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route."

This CMP complies with the requirements of the National Environmental Policy Act (NEPA) of 1969. The draft CMP released for public review in October 2007 included a programmatic environmental impact statement (EIS) following from the 1998 *Feasibility Study* prepared by the National Park Service, on which Congress based its decision to establish the trail. The *Feasibility Study* provided a history of the trail, statements of significance and purpose, a vision for the trail, and offered four alternatives for future protection, interpretation, and management of the Ala Kahakai, considered to be part of the *ala loa* system that traditionally passed around the circumference of the Island of Hawai'i (cf. Malo, 1951; 'i, 1959; and Kamakau, 1961). The four examined alternatives included No Action, National Historic Trail (continuous), State Historic Trail, and National Historic Trail (discontinuous). The *Feasibility Study* recommended Alternative B, National Historic Trail (continuous), as the environmentally preferred alternative. The *Feasibility Study* constituted the first phase of a tiered planning and environmental review process.

The draft CMP/EIS, the second phase, remained general and programmatic containing reconnaissance-level information necessary to make broad policy and planning decisions. Alternatives examined in the draft CMP/EIS were No Action, Single Trail, and *Ahupua'a* Trail System. The NPS selected alternative and the environmentally preferred alternative, *Ahupua'a* Trail System, is described in this CMP.



Old railroad alignment, N. Kohala, NPS photo

THE NEED FOR THE PLAN

This CMP provides needed long-term direction for natural and cultural resource preservation, education, and trail user experience along the Ala Kahakai National Historic Trail. It primarily provides a framework for management and a vision to be fulfilled through future, more specific resource studies and site and segment management plans. It was developed in consultation with National Park Service park and program managers and resources staff; state and local government agencies; interested parties including landowners, Native Hawaiian individuals and groups, area residents, trail user organizations, and other individuals; and the general public. This mutually agreed upon plan will help coordinate partners to work together with specific goals in mind.

The CMP represents the commitment to the public by the NPS and its partners on how the national trail will be administered and managed. To meet those ends, the CMP accomplishes the following:

- Confirms the purpose and significance of the trail.
- Defines trail classifications, resource conditions, and visitor uses and experience to be achieved.
- Identifies the necessity of partnerships with others in protecting trail resources and providing appropriate trail user services.
- Provides a framework for NPS.



Navigators' Heiau, N. Kohala, NPS photo

administrators and its partners to use when making decisions about such issues as how to best protect resources and values, how to provide quality visitor use and experience, how to manage visitor use, and what kinds of facilities, if any, will be needed to make the visitor experience a positive one.

Federal ownership and management of the Ala Kahakai NHT is limited to portions of the four national parks along its route: Pu'ukoholā Heiau National Historic Site (NHS) in the South Kohala district; Kaloko-Honokōhau National Historical Park (NHP) in the North Kona district; Pu'uuhonua o Hōnaunau NHP in the South Kona district; and Hawai'i Volcanoes National Park in the Puna district. (See map 1.) Approximately 17 percent of the NHT is within the boundaries of these national parks. With trail authorization these trail segments came under federal jurisdiction in compliance with §3(a) 3 of the National Trails System Act.

This CMP outlines a process whereby nonfederal trail sites and segments may become official parts of the Ala Kahakai NHT through specific site and trail segment management plans and implementation options. The impacts of each subsequent management plan, construction project, trail program, and various other projects will be considered in compliance with the National Environmental Policy Act (NEPA), Sections 106 and 110 of the National Historic Preservation Act (NHPA), the implementing regulations set forth in the Code of Federal Regulations (CFR), other federal, state, and county regulations as applicable. In all cases, planning for the trail and trail facilities

will be conducted in close consultation with the landowners, the Native Hawaiian community, trail organizations, community interest groups, area residents, and state and local government.

Concept for the Ala Kahakai NHT

The Ala Kahakai NHT reflects a Hawaiian concept of trails as a network connecting places of importance to Native Hawaiian people. It consists of a linear shoreline or near shoreline trail, and on public lands, includes other ancient and historic trails lateral to the shoreline. It may be connected to *mauka-makai* trails within the Ala Kahakai NHT corridor that traditionally would have been part of the *ahupua'a* system. It validates the existence and importance of multiple trail alignments in traditional land use and stewardship in Hawai'i by using the authority of the National Trails System Act, as amended, for connecting and side trails² (Section 6 [16USC1245]). It reflects the public's vision, developed in the planning process, for the administration and management of the trail.

Within the planning period of 15 years, the goal is to complete the linear trail within a priority zone

² Connecting or side trails may be established, designated and marked as components of a national historic trail on federal lands by the Secretary of the Interior. They may also be located across lands administered by state or local government agencies with their consent or on privately owned lands with the consent of landowners. Applications for designation of such trails are submitted to the Secretary of the Interior and do not have to be approved by Congress. (See Appendix B, National Trails System Act, §6.)



Jeep trail, N. Kohala, NPS photo



Mahukona, N. Kohala, NPS photo

from Kawaihae through Pu‘uhonua o Hōnaunau National Historical Park to Ho‘okena, to protect other segments outside of that area, and to include *mauka-makai* trails within the corridor and in the priority area, as feasible. A continuous linear trail will take precedence. Initial focus for incorporating multiple trail alignments, both lateral and *mauka-makai*, would lie in selected public lands. These connections may provide opportunities for loop trail experiences. Multiple alignments will occur on public lands only, unless a private landowner expresses an interest in recognizing more than a single linear Ala Kahakai NHT. Canoe landings that reflect the traditional use of canoes in long-distance travel will be included, as feasible.

The NPS will not only administer the entire trail but will consider managing those segments of trail owned by the state through the Highways Act of 1892, including multiple alignments. This plan anticipates that the Ala Kahakai Trail Association and other organizations will function as partners with the NPS in community-based protection of cultural sites and landscapes that are large enough to provide the setting for cultural conservation through the on-site practice and preservation of Hawaiian values. The trail maps appear on pages 83-87.

Administration, Management, and Partnerships

DEFINITION OF TERMS

Within the National Trails System, the terms administration and management have specific and separate meanings to distinguish between trailwide coordination (administration) and local, segment by segment, ownership and care (management).

Administration encompasses the tasks performed by the agency assigned by the U.S. Congress to administer the trail. Subject to available funding, the administering agency exercises trail-wide responsibilities under the National Trails System Act for that specific trail. Typically, such responsibilities are to provide technical assistance, oversight, and coordination among and between agencies and partnership organizations in planning, resource preservation and protection, marking and interpretation, agreements (partnership, cooperative, and interagency), and financial assistance to other cooperating government agencies, landowners, interest groups, and individuals.

Overall administration of the Ala Kahakai NHT rests with the National Park Service Pacific West Region-Honolulu under the Pacific area director. The trail superintendent, the administrator of the trail, is located at trail headquarters, established at Koloko-Honokōhau National Historical Park in June 2002.

Management refers to those site-specific tasks carried out by various government, community, and private entities that own, manage, or care for lands along each national trail. Management responsibilities often include inventorying resources; mapping, planning, and developing trail segments and sites; complying with federal and state laws; providing for appropriate public access; interpreting sites; marking and maintaining trails; preserving and protecting resources; protecting viewsheds; and managing visitor use.

MANAGEMENT APPROACH

Description

The NPS will use management agreements for high potential sites and segments, authorized by Section 7(h)(1) of the National Trails System Act, as the chief means of ensuring trail and resource protection and authenticity of interpretation on nonfederal land. These agreements between the NPS and the landowner, land manager, or nonprofit organization seek to

- confirm that features are important to the trail
- include and officially recognize qualifying nonfederal sites and segments on nonfederal lands along the national historic trail
- document the NPS and manager's commitment to resource protection and appropriate public use
- build a uniform and coherent visitor experience and resource protection program end-to-end along the trail

For the Ala Kahakai NHT, trail marking and use of the logo indicate that proper protocols related to the Native Hawaiian descendants and others with deep connections to that specific area have been followed, cultural and natural resources identified and protection measures put in place, trail maintenance clarified, and monitoring procedures applied. Agreements help to ensure that ancient and historic trail segments and associated sites and values meet the basic preservation,

interpretation, or recreation functions described in the National Trails System Act, Section 7(h)(1) and any other prescribed criteria. Agreements formalize partnerships with non-federal landowners and stakeholders along portions of the entire trail.

Landowner Involvement

Landowner participation in the Ala Kahakai NHT is voluntary, though encouraged, and requires an agreement with the NPS. Land will be acquired, if at all, only from willing sellers and donors. If a proven state-owned trail that is eligible for the Ala Kahakai NHT passes over private land, federal laws will apply only to the trail right-of-way and agreed upon adjacent areas and not to the rest of the landowner's property. State and county laws that apply to landowners will continue to apply. If a linking trail opportunity exists on private property that is not required through some state or county provision, it will be at the landowner's discretion to participate. Landowners may wish to protect for public use and enjoyment resources adjacent to and associated with the trail. Experience on other national trails indicates that many landowners take pride in preserving trail resources and in their association with the National Park Service. Recognition of trail sites provides a positive way for landowners to help preserve resources without giving up ownership rights. Interested landowners will be encouraged to incorporate their resources into the Ala Kahakai NHT so that they may receive the benefits of NPS technical and possible financial assistance in protecting those resources. Easements and partial interests in land can sometimes provide significant tax relief under the National Trails System Act, as amended, section 7(k).



Shoreline residence, Mauna Kea Beach Resort, NPS photo

Hawaiian Land Management Values

Specific stewardship concepts and values embedded in the Hawaiian culture and expressed in words of the Hawaiian language provide a basis for a cultural, community-based trail management approach for the Ala Kahakai NHT. Brief definitions, which do not fully convey the depth and breadth of meaning, are offered below:

<i>'aina</i>	The living earth
<i>aloha</i>	"Sacred breath of life," love, compassion
<i>aloha 'aina</i>	Love of the land, reverence for all living things
<i>ho'okipa</i>	Hospitality
<i>ho'okupu</i>	Tribute as a sign of honor and respect, gift exchange
<i>'ike</i>	Knowledge
<i>kōkua</i>	"Pulling with the back," pitching in to help, volunteering
<i>kuleana</i>	Responsibility, implied reciprocity
<i>laulima</i>	"Many hands working together," cooperation
<i>lōkahi</i>	Unity, balance, harmony
<i>mahalo</i>	Thanks, gratitude
<i>mālama</i>	Take care of, care for, preserve
<i>mana'o'i'o</i>	Respect for nature
<i>pono</i>	Balance, proper, right, just, fair, integrity



Cultural festival, Kaloko-Honokōhau NHP, NPS photo

Community Planning and Management Team

For each trail segment, generally defined by an *ahupua'a*, with help from the Ala Kahakai NHT administrative office, a planning team will develop a management agreement. Interested individuals from the following categories will be invited to join the team as appropriate for each segment:

- *kūpuna* or other knowledgeable and concerned Native Hawaiians associated with a particular *ahupua'a*
- *kama'aina* or persons with historic kinship with or knowledge of the land
- landowners adjacent to the trail segment
- volunteer trail groups with an interest in the trail segment
- community-based organizations interested in the trail segment
- representatives of involved government agencies
- other stakeholders as appropriate for each trail segment
- interdisciplinary resource specialists (a requirement)

This team will assist in the development of a trail segment management plan and help ensure follow-through in the management of the segment.

Once a management plan is in place for a specific site or trail segment, the public will be informed through appropriate trail information programs that the site or segment is available for public use. The agreement can be revoked if parties to it fail to protect natural or cultural resources or fail to meet their agreed-upon obligations. This could result in the removal of the segment from the inventory of the Ala Kahakai NHT, from trail information programs, and the removal of signage. Other actions may also be taken, according to the terms of the management agreement.

Organizational Capacity Building

As appropriate, Ala Kahakai NHT administrative and operational staff will assist and encourage trail segment management groups by offering strategic planning, organizational capacity building services, resource management and other training in order to assure and sustain successful implementation of trail management agreements.



Stepping stone trail, NPS photo



Trail, South Kona, NPS photo

Administrative Focus

Given the length of the trail, its numerous associated resources and values, and the limitations of staff time, the Ala Kahakai NHT administrative staff will initially focus on the 75-mile corridor from Kawaihae through Pu'uhonua o Hōnaunau NHP to Ho'okena (map 1) to develop trail segment management agreements for the following reasons:

- easily identified traditional or historic trails and routes are evident
- the area is impacted by population growth
- landowners in the zone are interested in the trail
- state, county, or national parks are present
- development pressure increases the demand for recreation and the need for trail protection
- communities in the zone want to be involved
- potential projects provide a good demonstration of what the trail can be

Cost estimates are based on completing this section of trail within the planning period of about 15 years. Nonetheless, other areas at risk will be recognized and protected as possible, even if they cannot be managed for public use immediately. Opportunities initiated by local people that arise in other areas will receive attention.

Agency Roles

The National Park Service through the Ala Kahakai NHT office will provide overall administration, coordination, and oversight of the Ala Kahakai NHT as directed by Congress, with an emphasis on ensuring consistency of preservation efforts, trail management operations, development and maintenance standards, and conformance with applicable laws, regulations, and policies. In addition, the NPS will consider management of state-owned trail segments other than those in the state parks. The state owns only the right-of-way, generally about 10 to 30 feet, as described in documents, oral histories, archeological studies, land deeds or other sources and by direct observation. Adjacent areas desired to protect trail related resources are generally outside of state ownership and will have to be negotiated with the landowner to be included in the Ala Kahakai NHT.



Punalu'u, Ka'ū, NPS photo

If a trail segment is identified by the state as state-owned and found appropriate for inclusion in the Ala Kahakai NHT, it could be transferred to the NPS for management under an agreement with the state; however, the NPS will not own the trail. These trail segments could then become federal components with similar protections as the national parks along the route. Nevertheless, NPS management will encourage the local communities of the *ahupua'a* to take responsibility for the trail in cooperation with the NPS.

The NPS will consult and coordinate with the State Department of Transportation (DOT) and its divisions (airports, harbors, and highways) regarding those locations where the trail may affect the lands, easements, or rights-of-way under its jurisdiction. Details of responsibilities related to implementing the trail will be worked out collaboratively, and the DOT will be asked to review and comment on plans by the NPS when they relate to locations where the trail affects or enters its facilities.

As opportunities arise, the NPS will assist in state review of records of title to determine the extent of trails within the Ala Kahakai NHT corridor, outside of state parks, owned by the state. Federal management of the state-owned trail segments will allow for more consistent management of the trail as a unified entity and enforcement of federal protection laws under 36 CFR-Parts 1-5. All relevant federal laws will apply to the trail right-of-



Kealakekua Bay, S. Kona, NPS photo

way of these trail sections. State laws for resource protection will continue to apply to the Ala Kahakai NHT if more stringent than the federal laws.

For the portions of the trail not owned or managed by the county, state, or federal government, the NPS will encourage local governments and private entities to enter into agreements, easements, rights-of-way, and land ownership for the protection and permanency of the portions of the trail outside of federal jurisdiction. Where other entities are not able to protect the trail right-of-way or resources and values, the NPS could acquire trail lands through dedications, donations, or purchase from willing sellers. Before considering land acquisition, the NPS will encourage agreements with landowners to recognize trail segments and resources as a part of the national trail while they maintain ownership.

To achieve the objectives of this CMP, the NPS will enter into management agreements, partnership agreements, and other instruments as needed with government and non-governmental organizations in the implementation of this plan.

The NPS will authorize or undertake all research and cultural and natural resource management planning and monitoring for the trail and provide technical assistance and oversight review of local segment management plans, their updates and revisions, for compliance with NPS policies and standards.

The NPS, along with the Ala Kahakai Trail Association as it is able, will provide management planning, coordination, technical assistance and capacity building to landowners and trail management entities. They will work closely with the community management teams, other nonprofit associations, and other partners to develop a strategic plan to better secure implementation of this CMP.

As the central repository for all information related to the administration of the Ala Kahakai NHT, the Ala Kahakai NHT office will seek information from the four national parks and all partner agencies and stakeholders. The office staff will add data and metadata to its geographic information system (GIS) and provide maps to aid local managers to recognize, mark, and otherwise implement the trail and to help provide trail information for users. The GIS will aid the NPS staff, local managers and landowners, and others to evaluate development proposals along the trail route for their effects on trail viewplanes and other resources. The office will make appropriate materials available upon request. When resource threats become known, information will be shared with all federal, state, and county agencies, Native Hawaiian groups, and others involved in community-based management.

Ala Kahakai NHT will partner with the four national parks to link their community involvement programs with community-based efforts of Ala Kahakai NHT management. The trail office will work with other Pacific area national parks to develop cross cultural community educational programs and interpretive materials on linking ocean and land trails with island cultures in the Pacific, provided that these programs are mutually beneficial and relevant to these park units.

The State of Hawaii will play a major role in the establishment of the trail. State Parks, the Nā Ala Hele Trails and Access Program, and other divisions within DLNR will be key partners with the NPS in implementing this CMP. A draft memorandum of understanding (MOU) for the Ala Kahakai NHT between the NPS and the state and county administrations describes coordinated working relationships, shared resources, and support for community management of the trail and shoreline areas. The MOU can be amended to permit the NPS to take less-than-fee interest in the Ala Kahakai NHT on state-owned segments and to define those rights the state will pass to the NPS for management of the trail.



Trail marker, Nā Ala Hele Program, State of Hawaii; Kuapa (wall), Kaloko fishpond, N. Kona; sign at Kealahou Bay State Park, NPS photos

Proposed land uses within the Conservation District shall be reviewed by the Department of Land and Natural Resources to determine what type of authorization may be required prior to implementation. The NPS may apply for a blanket authorization Conservation District Use Permit to implement minor land uses such as signage and trail identification markers for areas within the Conservation District for the entire trail length to insure consistency of trail indicators.

The County of Hawaii will continue to enforce, as a condition of land use approvals, county and state laws requiring public access to and along the shoreline that may create potential Ala Kahakai NHT trail segments; encourage private landowners who have public access requirements as conditions of land use approval to include these areas in the NHT, where appropriate; review county-owned public access easements to and along the shoreline for potential incorporation in the NHT; and coordinate the identification of trail segments through county parks.

The County Planning Department will work with the NPS to develop a system whereby all project applications determined to have potential impacts on historic trails within the Ala Kahakai NHT corridor are sent to the Ala Kahakai NHT administration for review and comment. The notification system will provide approving-agencies and applicants clear guidelines on when the Ala Kahakai NHT should be included in the review

process. Such applications include Subdivisions, Special Management Area Assessments and Use Permits, Special Permits, Grading, Project Districts, Rezoning, State Land Use District Boundary Amendments, Leases of State-owned lands, Environmental Assessments, and Environmental Impact Statements. The County will contact the NPS regarding these reviews in a timely manner.

The county has no provisions to assume the costs of improvements and maintenance of easements it requires through the land use approval process and, therefore, generally does not accept dedication of easements. Although the easement is recorded on the final subdivision map with the Bureau of Conveyances and subsequently noted on Tax Maps, often no entity is responsible to build or maintain it. In these cases, if the easement is eligible to be included in the Ala Kahakai NHT, the NPS will identify entities to construct the trail and manage and maintain the easement as part of the management agreement for the trail segment.

County Parks will manage segments of the Ala Kahakai NHT within the county parks. The NPS will encourage the county to use its Parks Partnership Program with non-profit organizations that want to manage the Ala Kahakai NHT within county parks. Also, through the MOU, the state and county will agree to manage their segments of trail consistent with this CMP.



Trail to Kaupulehu, North Kona; sign at Kohanaiki Beach; Mamalahoa trail clearing by Kealakehe HS students, N. Kona, NPS photos

Community Roles

Ala Kahakai Trail Association will work in close partnership with the Ala Kahakai NHT administration in the management of the trail with the goal of preserving a trail network and associated sites as places of cultural conservation. The association will develop and implement a strategic approach to communications, membership, product development, marketing, and fund raising for projects, project management, and staffing. If the capacity of the organization does not develop as anticipated, then the projects and programs proposed may not be realized.

Together, the Ala Kahakai NHT office and the non-profit association will

- keep the vision of cultural conservation and community building through stewardship of the trail
- develop principles, policies and protocols to ensure authenticity and integrity through work with *kūpuna* (elders), descendants, those with deep ties to the *ahupuaʻa* and others in the community
- monitor progress and provide technical and cultural assistance to landowners and trail segment managers in the development and implementation of trail segment management plans
- establish partnerships and build capacity to develop curricula for education,

culture, history, nature, science, and trail management with a link to career paths and job opportunities for trail-associated resource management and visitor experiences

- ensure that the Hawaiian community benefits from contributions to the trail through development of the legal framework for the protection of cultural and intellectual properties, thus assuring that these assets remain with the community and the proceeds returned to trail management programs.

The Ala Kahakai Trail Association will serve to unite the community and to build positive, broad-based local, national and international support for the shared vision and goals stated in the CMP.

Community Trail Segment Managers may be existing non-profit organizations whose mission, values and goals are consistent with this plan. Landowners, lessees, and managers will be encouraged to involve the local community in managing their segment of the trail. Ala Kahakai NHT and the Ala Kahakai Trail Association will work with public and private landowners, resort managers, schools, and other groups on innovative community involvement approaches and will help train and build capacity of these community managers.

The Ala Kahakai NHT trail office and the Ala Kahakai Trail Association will develop and maintain capacity to perform or obtain on-the-ground

trail segment management in the event that the community manager is unable to continue management.

Non-governmental Organization Partners, such as hiking, sports, educational, residential community, and cultural organizations will be encouraged to partner with trail segment management organizations, and the Ala Kahakai Trail Association as part of community-based management.

Land trust organizations on the island of Hawai'i play a critical role in preservation of open spaces that contain traditional or historic trails that could become a part of the Ala Kahakai NHT. These trusts include such groups as the Trust for Public Land, Nature Conservancy of Hawaii, Hawai'i Island Land Trust, and the "Kingdom trusts" of Kamahameha Schools, Queen Emma Foundation, and the Liliuokalani Trust. The acquisition of properties, purchases of conservation easements, or other arrangements could produce important results towards the goals of the Ala Kahakai NHT, as demonstrated by the protection of Honu'apo Fish Pond.

Guidance for Including Trail Sites and Segments

For non-federal trail owners and managers who wish to include their sites or trail segments as official components of the Ala Kahakai NHT, the CMP provides criteria and guidance for sites and segments, interpretive facilities, trail alignment, and trail classifications and management prescriptions.

CRITERIA FOR HIGH POTENTIAL SITES AND SEGMENTS

Based on the National Register of Historic Places and the National Trails System Act, the following criteria will be used to identify high potential sites and segments (see Glossary for definition of "high potential"):

- authenticity of the trail segment or site, based on documentation and archeological research
- integrity of the physical remains
- integrity and quality of the setting even if there is no physical trail remnant
- opportunity for a high-quality recreation historic trail experience
- opportunity to interpret the historic periods of trail use



Puhino o Lono Heiau, S. Kona, NPS photo

In addition, the following criteria will apply to sites and segments incorporated into the Ala Kahakai NHT:

Legal and policy compliance: Trail sites and segments that are proposed for development or modification must comply with applicable state, local, and federal laws relating to environmental compliance, historic preservation, public health and safety, equal employment opportunity, and accessibility for people with disabilities. Compliance-related actions must be completed prior to an agreement for site or segment use along the Ala Kahakai NHT. The NPS or other qualified entities will provide the technical assistance necessary for compliance. (See the Glossary for more information on compliance.)

Public access: Sites and segments must be reasonably available for public use. "Reasonably available" includes areas that are restricted to day use or are available only through guided tours subject to the payment of a fee, or subject to other similar restrictions, as well as areas that are free and open to the public at all times. The degree of public use should be commensurate with the resource value, that is, the more sensitive the resource, the more restricted the access.

Size: Trail segment lengths are determined mainly by *ahupua'a* boundaries which, in many cases, follow current land ownership patterns. Each site or segment must be large enough to protect significant resources and to offer opportunities for interpreting some aspect of the trail or retracing the trail route. A trail segment will include the trail tread (legal right-of-way) and negotiated adjacent areas sufficient to protect important resources and the trail setting.

Location: Sites or segments should be within the corridor of the Ala Kahakai NHT.

Management: The managing entity will ensure that the segment will be available for public use and identify how resources will be inventoried, assessed, monitored, and preserved and the trail right-of-way protected and made available for public use. Management objectives for the site or segment will be established and management responsibilities defined in the agreement.

CRITERIA FOR INCLUDING INTERPRETIVE FACILITIES

National Park Service Visitor Centers

The four NPS units will be encouraged to include the Ala Kahakai NHT in their interpretation programs. These parks might include orientation programs similar at each site (video, film, exhibit, for example) and programs that place each particular trail locality and site in a more precise context based on the place names and stories of the area. Programs will be designed to promote firsthand experiences by motivating visitors to see important trail sites or to travel a segment of the trail.

As units of the national park system, each park will pursue its own development and funding process, and ongoing operational costs will be funded through the normal appropriated funding process for each unit. Ala Kahakai NHT trail administration can provide funds, as available, for site bulletins, wayside exhibits, and other interpretive information.

Complementary Interpretive Facilities

Various agencies and groups, other than the NPS, may have appropriate facilities at which Ala Kahakai NHT interpretation can be presented. The NPS trail staff will coordinate the overall interpretation of the trail. Facilities that meet the criteria outlined below could be recognized as official interpretive components of the trail and use the trail marker on signs and approved materials.

Complementary interpretive facilities should meet the following criteria:

- No significant impacts to the integrity of archeological or historic sites, cultural landscapes, or the environment.
- Environmental and architectural compatibility with the resources and values being interpreted.
- Accurate interpretive information to visitors.
- Accessible to and usable by people with disabilities by meeting or exceeding federal standards and NPS compliance requirements.
- Open according to a regular schedule for at least 25% of the year.
- Clean, well-maintained, and orderly.
- Meet applicable local, state, and federal regulations for health and safety,

equal employment opportunity, and environmental compliance.

- Operating staff that is familiar with the trail history and, as appropriate, personal interpretation techniques.
- A defined system of financial accountability, if the facility sells special publications or other materials that are sponsored or provided by the NPS.

These facilities may receive assistance from the NPS in the categories described below. The NPS will provide assistance on interpretation, including technical assistance, limited financial assistance, and media, but it will not construct or operate facilities.

Category I, State Interpretive and Educational Facilities: these facilities include those constructed, operated, or substantially supported by state agencies. The NPS can provide technical assistance for interpretive planning, design, or curation; allow its publications to be sold; or provide exhibits or other media appropriate for the site.

Category II, Private or Local Nonprofit Interpretive and Educational Facilities: these facilities include those nonprofit facilities run by communities, the county, regional entities, the Ala Kahakai Trail Association, and trail segment management organizations. The NPS can provide technical assistance or, on a cost-share basis, a modular exhibit with a trail overview and local site information. If the site qualifies, NPS-sponsored publications or materials could be sold.

Category III, Off-trail Corridor Facilities: this category includes off-trail corridor interpretive and educational facilities that recognize and interpret the trail. The NPS can provide technical assistance and, if the site qualifies, allow its publications or materials to be sold there. The extent to which media will be provided will depend on future NPS interpretive planning and consideration of the following factors: the site's historical significance to the trail; its outdoor interpretive/recreational values; its resource integrity; its location relative to similar NPS or federal facilities and programs; its ability to convey trail themes and to educate and reach the public; its proximity to trail resources; and its ability to contribute to interpretive balance between different sites.



Pu'ukoholā Heiau NHS, S. Kohala; Pu'uhonua o Hōnaunau NHP, S. Kona; interpretative display at Pu'ukoholā Heiau NHS, S. Kohala, NPS photos

CRITERIA FOR TRAIL ALIGNMENT

The Ala Kahakai NHT includes a continuous linear trail, additional ancient and historic trail segments parallel to the shoreline within the trail corridor, connected *mauka-makai* trails within the trail corridor on public lands, and historic canoe landing areas as appropriate. Some of these segments are land-banked via documentation that may include, but is not limited to, both the Nā Ala Hele Abstract Database, documents filed with the State Historic Preservation Division, or approved Conservation District Use Applications that may technically be considered under the jurisdiction of the State Land Division. The jurisdiction is challenged when an affected private landowner disputes the claim of state ownership and there is pending litigation. Such trail segments and associated features would remain in an unmanaged condition until such time as either the NPS or Nā Ala Hele has resolved the ownership issue and has the capacity to manage them.

Resource protections provided by national trail status will be extended to all trail sites and segments included in the national trail through a management planning process. Full federal protections will apply to the trail right-of-way for those trail segments that the NPS receives for management, in less than fee, from the state. In the meantime, the NPS will work to provide technical assistance and seek funding to help Nā Ala Hele develop the capacity to actively manage these trail segments themselves or with a local partner and recognize them as part of the Ala Kahakai NHT.



Shoreline trails, Makalawena, N. Kona, NPS photo

In addition, easements required through the land approval process often are recorded with the Board of Conveyances, but often no requirements for installation or maintenance exist. In these instances, the NPS will provide technical assistance and seek funding to help local communities manage and maintain these segments.

In order to create a single continuous trail alignment for the Ala Kahakai NHT, trail selection criteria will be applied in the following priority order:

- An unaltered³ or verified ancient trail remnant with connections to other trail segments on either end and to high potential sites.
- An unaltered or verified historic trail remnant with connections to other trail segments on either end and to high potential sites.
- In the case of several parallel unaltered or verified trail alignments, the remnant representing the earliest trail use that also best provides connections to other trail segments on either end and to high potential sites. The other segments will be protected in place and may become part of the interpretive program.
- A connecting footpath.
- A connecting jeep trail.
- A paved road, preferably with ADA accessible sidewalks.

³ "Unaltered" and "verified" refer to the trail classifications described on p. 54.



Ancient trail remnants, S. Kona, NPS photo

Trail alignment should not interfere with the access of the U.S. Coast Guard to its 13 aids to navigation, one each at 'Upolu Point, Māhukona, Keahole Point, Keawekāheka Point, Keauhou Bay, Ho'opuloa, Kamaoa Point, and Honokōhau; two in the vicinity of Kailua Bay; and three in the vicinity of Kawaihae.

Mauka-makai trails connected to the linear trail that cross private lands but are identified by Nā Ala Hele as state-owned could become part of the Ala Kahakai NHT. The adjacent landowner will be consulted regarding areas next to the trail right-of-way that require protection of associated resources and other potential concerns. Shoreline lateral access trails that are required as a development permit condition by the county could also become a part of the Ala Kahakai NHT. The goal is to re-create a traditional system of trails in selected areas to enhance the trail experience for Native Hawaiians, local residents, and other visitors and to support cultural conservation.

TRAIL CLASSIFICATIONS AND MANAGEMENT PRESCRIPTIONS

Management prescriptions are used to specify the desired resource conditions and user experiences that should result from trail management. Trail classifications for the Ala Kahakai NHT relate to the degree of evidence of the *ala loa* or ancient and historic trails. The desired conditions and trail experience relate to the trail's fundamental resources and values summarized as follows:

- protection of the original trail fabric or alignment
- protection and provision of access, as appropriate, to protected natural, cultural, and recreational resources related to the Hawaiian culture
- protection of places where prehistoric and historic events associated with the *ala loa* took place and where their stories may be told
- provision of opportunities to practice and experience traditional Hawaiian stewardship in an *ahupua'a* context
- protection of significant natural areas and resources

The four trail classifications described below may be found anywhere along the trail route in any of the island districts. Should these prescriptions

conflict in any way with management prescriptions in the management plans of the four national parks, to the extent possible within park purpose and significance, park plans will be amended to accommodate and support the CMP. Prescriptions describe desired conditions in the present tense. Four trail types are described as follows and are noted on the table of trail segments in Appendix F.

Unaltered Trail. The ancient or historic trail retains the essence of its original character with historic fabric in place or original trail tread evident. These trails may be comprised of stepping stones, 'a'ā lava, *pāhoehoe* lava, curbstone, 'a'ā lava with stepping stones or with stepping stones removed, or a pathway with defining elements alongside.

Desired Condition: The trail tread or fabric, other defining elements, and trail values are preserved and protected in place, rehabilitated, or restored⁴ as necessary and appropriate. Ideally, there are few, if any, modern intrusions and the trail is kept free of added development. Adjacent protected areas, negotiated with the landowner, are adequate to maintain the integrity of location, design, setting, materials, workmanship, feeling, and association. Cultural and natural resources are protected and interpreted; however, natural resources are managed to complement cultural resources, while protecting rare and exceptional natural systems. Informational and interpretive signs are well-designed and offered at trail heads away from the trail itself. The special relationship of Native Hawaiians to the trail and associated resources is recognized and integrated into the management program. A national register nomination is completed for the segment. The trail is clean, safe, and appropriately used.

Trail Experience: Use is restricted to hiking. The trail user can come into contact with the historic setting, share the experience of the ancient users, and explore Hawaiian culture first hand by walking the trail and learning of its associated places and stories. Native Hawaiian cultural practitioners find an appropriate setting for their practice. Hawaiians and others with deep ties to the trail setting and its culture are able to enjoy this culture and share the experiences of their ancestors. Trail use may require a relatively high degree of physical exertion and an extended time commitment. Generally, these trail segments offer a moderate to high degree of

⁴ Refer to the Glossary for definitions of preservation, rehabilitation, and restoration.

challenge and adventure. Existing opportunities for solitude, closeness to nature, tranquility, and the application of outdoor skills are protected and enhanced if possible. The trail is perceived by users to be uncrowded with few users at any one time. More users are expected in traditionally high use areas such as beaches, parks, and resorts; crowding is not necessarily perceived in these areas. In many areas there is a low probability of encountering other visitors; within developed areas, other trail users may be encountered, but numbers may be limited through permits, guided tours, or other means as necessary to preserve the desired experience.

Management: Management presence is sufficient to protect trail resources. Guidelines prepared by the Nā Ala Hele Hawaii Island Advisory Council apply. (Appendix G contains these guidelines.) Trail relocations are not be permitted unless absolutely necessary to avoid burials or other sacred places. If a trail is rerouted to avoid a burial, the original trail fabric or tread that passes the burial is preserved. Hawaiian cultural concepts are the basis of trail management, and traditional practitioners are encouraged to use the trail. Support facilities, if needed, are located away from the trail segment and its associated resources. Conditions allowing cultural practices are maintained. Markers and signs are inconspicuous and may be surface-mounted on stone or other material to avoid digging. In soil areas, marker posts may be installed in the ground if an archeologist or Native practitioner is present during the digging. In some cases, wayfinding is used. Cultural and natural resource inventories are complete and monitoring protocols in place. Resource protection is achieved through visitor education, control of numbers as

needed in sensitive areas, and regular patrols and enforcement. Some Native Hawaiian or interpreter-led trips may be provided. If landscaping is installed, plants native to Hawai'i and adapted to the locale are used. Invasive plants are tracked and where possible controlled. Incipient alien species are removed from the trail right-of-way and negotiated adjacent areas as feasible using approved methods.

Verified Trail. The ancient or historic alignment is known, but no trail fabric or trail tread is present. There is a high degree of evidence for the trail, but there may be low physical integrity. It must be an ancient or historic trail alignment as defined by the Highways Act of 1892 and proved through research.

Desired Condition: The trail alignment is preserved and protected. Ideally, there is limited intrusive modern development, but it may be present. Adjacent protected areas, negotiated with the landowner, are adequate to maintain the integrity of location, setting, feeling, and association. The trail tread can be restored if the archeological evidence is clear as to construction methods. Otherwise, a trail segment may be constructed on the ancient or historic alignment using the most appropriate materials related to the adjacent ancient or historic segments. Cultural and natural resources are protected and interpreted; however, natural resources are managed to complement cultural resources, while protecting rare and exceptional natural systems. The special relationship of Native Hawaiians to the trail and associated resources is recognized and integrated into the management program. If appropriate, a national register nomination is completed for the segment. The trail is clean, safe, and appropriately used.



1871 trail from Pu'uhonua o Hōnaunau NHP, NPS photo



Trail marker, Nā Ala Hele Prog., State of Hawaii, NPS photo

Trail Experience: Use is restricted to hiking. The trail user understands that the original trail fabric is no longer there, but also has a sense of what the ancient users experienced. Native Hawaiians and others with deep connections to the land experience the roots of their culture through travel on the trail and performing appropriate cultural practices. The trail user can explore Hawaiian culture first-hand by walking the trail and learning of its associated places and stories. The trail is perceived by users to be uncrowded with few users at any one time. More users are expected in traditionally high use areas such as beaches, parks, and resorts; crowding is not necessarily perceived in these areas. Trail use may require a relatively high degree of physical exertion and an extended time commitment. Generally, the trail offers a moderate to high degree of challenge and adventure. Opportunities for independence, closeness to nature, tranquility, and the application of outdoor skills vary according to trail location.

Management: Management presence is sufficient to protect trail resources. Guidelines prepared by the Nā Ala Hele Hawaii Island Advisory Council apply. (Appendix G contains these guidelines.) Trail relocations are not permitted unless absolutely necessary to avoid burials or other sacred places. If a trail is rerouted to avoid a burial, the original trail alignment that passes the burial is preserved. Hawaiian cultural concepts are the basis of trail management, and traditional practitioners are encouraged to use the trail. Support facilities, if needed, are located away from and out of sight

of the trail segment or associated resources. Markers and signs are inconspicuous and may be surface mounted on stone or other materials to avoid digging. In soil areas, marker posts may be installed in the ground if an archeologist or Native practitioner is present during the digging. If necessary to accommodate through-hiking, facilities such as picnic tables, trash cans, composting toilets, potable water, and primitive campsites may be provided in appropriate areas accessible by the trail but away from its view. Cultural and natural resource inventories are complete and a monitoring protocol in place. Non-native plants are removed from the trail right-of-way and negotiated adjacent protected areas. If landscaping is installed, plants native to Hawai'i and adapted to the locale are used.

Linking Trail. It connects unaltered and verified trail segments on an approximate alignment of the ancient or historic route that may have been obliterated by lava flows, high wave events, tsunamis, development, or other human activity. Often the requirement to construct a public trail results from conditions placed on private landowners through land use approvals, such as SMA permits, zoning, and subdivision approvals. In some cases, the accesses that result from permit conditions may be in the same location as those proven to be public under the Highways Acts of 1892. Such trail segments will be managed under this CMP either as unaltered or verified trails.

However, in the cases where the existence of a public trail cannot be proven, the conditions of approval can require a permanent easement and



Trail, S. Kohala, NPS photo



Old railroad alignment, N. Kohala, NPS photo

construction of a public trail across private land.⁵ Many of these trails already exist in resorts and other private developments. Such trails could become part of the Ala Kahakai NHT as linking trails. In addition, trails may need to be marked or constructed over new lava flows or other areas where a trail no longer exists. In some cases, where highly erodible coastline exists, the trail may need to be sited somewhat inland. A linking trail may be a dirt or sand pathway, asphalt or concrete walkway or sidewalk as in resorts or other developed areas, a two-track pathway, or jeep trail.

Desired Condition: The trail is walkable, well-designed, and maintained to avoid erosion or resource damage. The trail may pass through or adjacent to developments such as golf courses, housing, and commercial projects where the historic scene no longer exists, but as possible, open areas adjacent to the trail reduce the effect of modern intrusions. Adjacent protected areas, negotiated with the landowner, are adequate to protect some sense of the trail environment. Hawaiian traditional places or cultural resources connected by or associated with the trail are interpreted and their stories told. As feasible, if a new linking trail needs to be built, the most scenic alignment of the trail, one that provides views to the ocean or significant inland features, is selected.

⁵ For example, Hawaii County required that Parker Ranch provide over two miles of public access within the 40-foot shoreline setback as a condition of subdivision approval for an area between Puakea Bay Estates and Kapa'a Park.

If the trail segment leads to or passes significant cultural resources, a national register nomination for those resources is considered.⁶ The trail is clean, safe, and appropriately used.

Trail Experience: Use is generally restricted to walking, although bicycling or other existing travel modes may be accepted on trail segments that may become part of the Ala Kahakai NHT. Where motorized use is established on jeep trails, it may be restricted to preserve the environment, cultural resources, or the trail user experience. Motorized use is not allowed on newly constructed trail segments. The user generally has a pleasant experience, one perhaps with more shade and surer footing than that provided on unaltered or verified trails, but does not have expectations for experiencing a traditional Hawaiian trail. In developed areas, the linking trail offers little challenge or adventure, but in more remote areas these qualities could be higher. Opportunities for independence, closeness to nature, tranquility, and the application of outdoor skills vary according to trail location, but are limited in developed areas. The probability of encountering other trail users is high on linking trails in developed areas, but reduced in more remote areas.

Management: Management presence may be high in such places as resorts and less so in more remote areas. Best practices guide the layout

⁶ In some cases, nominations of resources adjacent to a paved trail are already completed, as with the trail through Mauni Lani resort in South Kohala.



Manini'owali, N. Kona, NPS photo

and construction of new linking trails. Marking is clear and evident but avoids clutter. In soil areas, marker posts may be installed in the ground if an archeologist or Native practitioner is present during the digging. Facilities such as picnic tables, trash cans, composting toilets, potable water, and primitive campsites may be provided at appropriate intervals along the trail. Non-native plants may be adjacent to the pathway in developed areas; however, plants native to Hawai'i and adapted to the locale are encouraged.

Roadway (auto tour route). An auto tour route using existing public roadways and access roads will be marked, and interpreted at appropriate and significant historic sites. Only the seven miles of Ali'i Drive, the shoreline drive connecting Kailua-Kona to Keauhou, are on the ancient route. The rest of the auto tour route provides automobile access to trail sites and segments. It is comprised of highway and paved or unpaved access roads that can be used by two-wheel drive vehicles. Roads selected for the route meet these criteria and include three overlooks that offer views of the trail route. The auto tour route connects all four national parks. Map 4 depicts existing sites that meet the criteria for the auto tour. At this time Mo'okini Heiau is not included in the auto tour because the entrance road is basically inaccessible. Once the road is improved, the *heiau* will be eligible to be included in the auto tour.

Desired Condition: Well-maintained roads provide access to selected high potential sites and associated trail segments that interpret the fundamental trail resources and values. Access roads accommodate two-wheel drive vehicles and have adequate parking areas. The auto tour route and the access points to high potential sites and segments are clearly marked. Trail segments related to the auto tour are clearly defined and users stay on them.

Trail User Experience: Visitors use the roadways, trails, and associated developments of the auto route to gain access to the Ala Kahakai NHT and its associated resources, tour the trail, and enjoy scenic overlooks and interpretive media. Visitor attractions are convenient, easily accessible, and well-interpreted. Visitors learn of the history of the trail and its associated places and stories. Observing the natural environment and understanding the cultural history are important activities. Trail segments that lead from parking areas and all visitor facilities on this route are accessible to persons with disabilities

and meet ADA requirements. Although buildings, structures, and the signs of people predominate, natural elements are present. There is little need for visitors to strenuously exert themselves, apply outdoor skills, or make a long time commitment to see the area. The probability of encountering other visitors and trail users is very high. Opportunities for adventure are minimal. Many areas along the auto route provide opportunities for social and group experiences, interpretation and educational programs, and compatible recreation activities. Programs incorporate multi-media approaches to meet the needs of all visitors, and facilities incorporate the principles of universal design, as feasible.

Management: The most management presence of the four trail types is provided at sites along the auto tour route to ensure resource protection and public safety. Existing buildings at the national or state parks or other sites are used as trail contact stations. There is regular trail, road, and roadside facility maintenance. Interpretation includes signs, displays, and wayside exhibits. Some interpreter-led programs and tours may also occur at sites along the auto tour route. Development is designed to harmonize with the natural and cultural environment. If landscaping is installed, plants native to Hawai'i and adapted to the locale are used. As feasible, non-native plants are removed from those sections of trail available to auto tour users. Major interpretive sites and trailheads have rest rooms, trash cans, wayside exhibits, and parking areas designed for traffic flow and safety. New facilities such as shade structures are consistent with the defining elements of the cultural landscape. Onsite controls and restrictions are subtle, such as berms, rocks, or vegetation used to prevent vehicles from leaving the road.



Ali'i Drive, Kailua, N. Kona, NPS photo

Map 4 Auto Tour Route



Legend

- Ala Kahakai NHT Corridor
- Districts
- Parks
- Wilderness

Roads

- Primary
- Secondary
- Auto Tour Route
- Auto Tour Sites
- Highway



0 5 10 20 Miles



Ala Kahakai National Historic Trail
Working Map 3/22/07

Resource Protection

GOAL OF THE PROTECTION PROGRAM

Protection of the fundamental resources and values associated with the Ala Kahakai NHT extends to a single trail alignment and those multiple lateral trail alignments and *mauka-makai* trails deemed suitable to be federally protected components or to be included in the Ala Kahakai NHT. The goal of the trail protection program is the preservation of cultural and natural features and landscapes that sustain the practice of Hawaiian values. Protection of a system of trails on public lands within an *ahupua'a* context provides the opportunity for Native Hawaiians to pursue traditional cultural, religious, and natural resource stewardship activities, which may include sustainable gathering. The *ahupua'a* trail system approach allows, on public lands, an inventory process based on landscapes or ecosystems rather than on the specific trail right-of-way and immediately adjacent resources.

The purpose of the protection program is to support cultural conservation efforts. It is designed to

- enhance the trail's relationship to the Native Hawaiian culture, descendants of those whose ancestors were the stewards of the trail's cultural and natural landscapes, and others with kinship connections to the land
- provide the setting for all to learn from the descendants and other practitioners about traditional stewardship practices, which includes sustainable gathering, and provide all with an opportunity to become involved in stewardship in a real and meaningful way
- provide a setting for the integration of traditional knowledge and stewardship practices with contemporary science
- provide for increased learning, skill building, livelihood and career track development
- offer a platform to launch culturally appropriate non-profit entrepreneurial or concession opportunities related to education, product and services development, cultural heritage and recreational activities for residents and visitors. These activities could produce revenue to fund trail resource management



'Anaeho'omalu Petroglyph Preserve, NPS photo

activities aimed at cultural and natural resource conservation or generate local employment

- promote a greater sense of belonging, understanding, respect and reverence thus enhancing enforcement efforts through prevention, self-regulation and the presence of active managers
- provide for a deeper and more meaningful trail user experience that preserves the dignity, beliefs, values and lifestyles of the Hawaiian culture
- provide greater reason and purpose to environmental protection and restoration efforts
- create a model of partnership, stewardship, viability, and education

The Ala Kahakai NHT office and its key partners will work to inventory and analyze cultural and natural resources along trail segments eligible to be part of the national trail, both lateral and *mauka-makai*, to determine appropriate preservation techniques and the potential to accommodate trail use and interpretation. Initial emphasis will be placed on completing the shoreline *ala loa* in the priority area and protecting those areas on public lands in which a traditional trail system is apparent, containing both lateral and *mauka-makai* trails.

Resource protection will be integrated into interpretive messages to provide an incentive for the trail user to protect precious resources.



North Kohala, NPS photo



North Kohala, NPS photo

CULTURAL RESOURCE PROTECTION

Although for discussion purposes this plan separates resource protection into discrete categories of natural and cultural resources, for the Native Hawaiian these are integrated into a cultural landscape. In Hawaiian culture, the land (*‘aina*) is sacred. The natural and cultural worlds are intricately bound together; the spiritual world is not separate from the secular but everything has spiritual power (*mana*). As an example, volcanic activity is a part of geological history, but Kilauea is also home to Pele, the volcano goddess, and her family. Seen in the flows and other natural phenomena associated with volcanic activity, Pele and her family continue to be a presence in Native Hawaiians' lives.

Trail management will treat resources holistically as part of a landscape in which culture and nature are one. To the extent feasible, and in recognition of the relationships among physical, biological, and social systems, cultural resource management will be integrated with natural resource management, education, and visitor experience as the primary approach of trail management.

The trail and its associated resources are best considered as elements within a cultural landscape. The range of cultural resources along the trail includes, but is not limited to, ancient and historic trail fabric; archeological sites, such as shrines (*heiau*, *‘ahu*), burial sites, petroglyphs, and grinding surfaces, and so forth; caves; named places, features, and landscapes of significance to contemporary Native Hawaiians (*wahi pana*) such as stone formations, geological landscapes, tree or areas

of plant growth, water sources, and so forth; and food and fish gathering areas. Protection of these resources and values is fundamental to achieving the trail's purpose and maintaining its significance.

Such resources will be protected within the agreed upon trail right-of-way and adjacent protection areas as defined in management agreements for each trail segment. National Historic Preservation Act Section 106 consultation with the State Historic Preservation Officer will be initiated early in the process of inventory and development of management agreements. Not all sites along the trail route are known at this time, but the CMP includes a process for completing archeological and other cultural resource inventories and assessments. Table 1 (chapter 2) lists known sites that could be protected. Not all of these sites are within the immediate coastal zone, but all are significant in Hawaiian and American history and culture. All relevant federal and state cultural resource protection laws will apply to the trail.

Protection Strategies on Federal Lands

On lands for which the NPS has the responsibility for the management and condition of cultural resources, such as the four national parks, the complement of federal laws⁷ will apply. Approaches

⁷ Examples are the Archeological Resources Protection Act of 1979, American Indian Religious Freedom Act of 1978, Federal Cave Protection Act of 1988, National Environmental Policy Act of 1969, National Historic Preservation Act of 1966, Native American Graves and Repatriation Act of 1990 as well as the NPS Management Policies of 2006 and other applicable laws and regulations. Chapter 2 contains a complete list.

to cultural resource research, planning, and stewardship will follow NPS-28, *Cultural Resource Management Guideline*. Although the four national parks along the route have cultural resource management plans and committed funding for resource inventory and stewardship, none of this work is complete and none is focused on the Ala Kahakai NHT. The trail staff will coordinate with the compliance officers of each of the four parks for any action proposed within a park, including sign installation. An environmental assessment may need to be completed for the trail in each park. The trail staff will also work with park staffs to help complete inventories and assessments in order to understand the character and significance of cultural resources along the trail and the needs for protection, stewardship, and monitoring. Trail staff will encourage the parks to embrace the Ala Kahakai NHT and to seek funding for resource inventories related to the trail.

On federal lands incorporated into the Ala Kahakai NHT, cultural information gained through trail inventories will be added to the following databases as appropriate:

Archeological Sites Management Information System (ASMIS) documents information about archeological resources.

Cultural Landscapes Inventory (CLI) documents cultural landscapes and their associated features including historic structures, sites, and districts.

List of Classified Structures (LCS) documents the inventory and condition of historic structures that are on the National Register of Historic Places.

National Catalog System (NCS) system catalogs artifacts, associated records, and archival material.

NPS Inventory and Monitoring Database

In the event that ethnographic data is or becomes available concerning the contemporary cultural significance of resources listed in any of the above databases, that information will be added to the database entries as appropriate.

Protection Strategies on Non-federal Lands

For trail segments and sites on the over 80% of the trail route under nonfederal ownership that could be added to the Ala Kahakai NHT through

agreements with landowners, several protection strategies may be used as suggested below:

Compliance with NEPA and NHPA: On non-federal lands as well as federal lands, the National Environmental Policy Act (NEPA) and Sections 106 and 110 of the National Historic Preservation Act (NHPA) will apply. These laws require assessment of impacts of federal actions on cultural resources and assessment of properties for potential eligibility to the National Register of Historic Places (NRHP).⁸

Compliance with state preservation laws: The Ala Kahakai NHT will comply with the guidelines set forth by the State Historic Preservation Division (SHPD) including the Burial Sites Program, HRS Section 6E (the State Preservation Law), the Hawaii Cave Protection Law of 2002, and others. The NPS will seek a memorandum of understanding with the SHPD to encourage consistency in the preservation, development, management and marking of the trail through various jurisdictions.

Inventory and assessment: Existing information about cultural resources along the route in a variety of repositories will be gathered in one database. The goal will be consistent collection of natural and cultural information and trail data in a trail Geographic Information System (GIS) with full metadata to develop a trail-long profile. For identification of undocumented significant archeological sites, caves, other cultural resources and landscapes, and historic structures, the NPS will develop a single site and feature form consistent with NPS site condition and assessment requirements and the Secretary of the Interior's Standards to be used for inventories on federal and nonfederal lands. As recommended in the *Archeological Overview and Assessment for the Three West Hawai'i Parks* (NPS 2004a), a single numbering system, preferably the system used by the SHPD, should be applied to all sites. Site identification and assignment of site numbers should be carried out within a framework that has a logical structure or rationale.

⁸ Resource types eligible for the national register include buildings, districts, sites, structures, objects, or traditional cultural properties. However, these categories are not distinct. A cultural landscape might include buildings, structures, and objects and be listed in the national register as either a site or a district. Archeological resources may be listed in all national register categories. Proper national register documentation for the Ala Kahakai NHT requires a multidisciplinary approach to resource evaluation.

As feasible, trail staff will coordinate the collection of new information about previously unrecorded sites, assess their significance to determine their eligibility for the NRHP, and cooperate with Native Hawaiians, state land managers, trail associations, trail scholars, and the SHPD in adding, deleting, or modifying the database of trail information. Potential or documented traditional cultural properties (TCPs) and *wahi pana* will be identified through existing literary and cartographic sources and, in large part, through ethnographic interviews with Native Hawaiians. Direct involvement and participation of Native Hawaiians is required, and they will determine whether or not TCPs should move forward. As feasible, assessments of traditional cultural significance will be added to existing NRHP nominations. To ensure including TCPs and *wahi pana* in trail management, the inventory process will be based, as feasible, on landscapes or ecosystems rather than on the specific trail right-of-way and negotiated adjacent resource areas.

In some situations, information must be kept confidential for protection of resources and to guarantee privacy to Native Hawaiian families. In response to public requests for information, the Freedom of Information Act and its appropriate

exemptions will apply. Information can also be kept confidential under the provisions outlined in the National Parks Omnibus Management Act of 1998, also known as the “Thomas Act” and under NPS Management Policies for Cultural Resources section 5.2.3.

Monitoring protocol: A monitoring protocol will be established for the entire trail, based on the consistent inventory and assessment system noted above, so that trail conditions, protection and restoration of natural areas, and protection of cultural resources, human use impacts and violations can be effectively measured and responded to.

Monitoring: Sensitive cultural resource areas will be monitored and maintained at the lowest feasible cost through volunteer and other programs that will have a training component so that the volunteers do not themselves accidentally harm resources. Trail segment management entities, or stewardship groups, will provide for active monitoring and patrolling of sensitive sites and trail segments at a frequency determined in site and segment management plans. Inventory and monitoring activities will be integrated where possible with the NPS inventory and monitoring program.



Navigators' Heiau, N. Kohala, NPS photo

Participation in planning and implementation of a joint West Hawai'i Parks Museum facility: The trail staff will work together with potential trail partners such as Hawaii State Parks, Bishop Museum, Kona Historical Society, University of Hawaii, West Hawaii Campus, Kamehameha Schools, Office of Hawaiian Affairs and the Department of Hawaiian Home Lands to help make a success of the proposed facility which will preserve and perpetuate Native Hawaiian culture. As described in the *West Hawai'i Parks Museum Management Plan*, the facility will combine traditional museum activities with contemporary cultural activities and bring together Native Hawaiian archeology, ethnography, and natural history of the west Hawai'i area in one centralized location to enhance research and learning opportunities at all levels.

Site and segment-specific management plans: On a segment by segment basis, generally related to *ahupua'a* boundaries but often to ownership, cultural resources associated with the trail will be identified, evaluated, understood in their cultural contexts and managed in light of their values. A management plan for each trail segment or site will address natural and cultural resources, and in compliance with applicable state and federal laws, may include preparation of an environmental assessment (EA). The plan will define, for compliance documentation, the area of potential effect (APE), the size of the area of land adjacent to the trail that should be surveyed for culturally significant resources. The definition of the APE will be made on a case-by-case basis in consultation with the SHPD or by negotiating a programmatic agreement. For cultural resources, the management plan will describe culturally appropriate treatments for burials, sacred sites, and artifact and site feature preservation prepared in close coordination with the SHPD. The plans will incorporate the expertise of local Native Hawaiians, archeologists, cultural anthropologists, and natural scientists, among others. Each plan will also establish procedures for monitoring that particular trail segment consistent with the overall monitoring protocol.

Phased opening of trail segments: No segment of the trail will be promoted for public use until significant cultural resources and values within that segment are documented, sensitive areas determined, and a segment-specific management plan in place.

Coordination with the Nā Ala Hele Hawaii Island Advisory Council: The Ala Kahakai NHT administration will coordinate with the advisory council on guidelines for protecting historic trails including protection of trail alignments with no physical remains and recommendations for adjacent areas.⁹ (Appendix G contains these guidelines.)

Strategic routing of the trail: As feasible, the trail will be routed to avoid intrusion by trail users into sensitive natural and cultural areas, with special consideration for burials, sacred sites, and caves.

Agreements: Protection on private lands will be accomplished through partnership or cooperative agreements, conservation easements, and land donations or fee simple purchases from willing sellers where lands could be efficiently managed.

Flexible stewardship allowing for limited visitation: Guardianship and curator programs for specific sites may be established by involving concerned Native Hawaiians. Based on management plans for the specific areas, some highly sensitive areas may require a Native Hawaiian guide or trained docent to permit public use, some may require trail rerouting to avoid sensitive sites, and others may be able to bear unrestricted public use. These issues will be addressed in each specific segment management plan for high potential sites and trail segments.

Planning and design: Trail planning and design will carefully consider effects to cultural resources with the goal of creating no adverse effects to them. The attention of visitors will be directed away from burial sites. Visitors will be asked to remain outside of ceremonial sites or other sensitive features. Planning and design will try to anticipate places where visitors might stray from the trail to visit an inviting beach or to get a better view and provide for appropriate access paths, as feasible. As an example, preserving or planting culturally important

⁹ These guidelines note that trail widths vary and may be established through direct observation or through information in archeological studies, land deeds, historic maps, or county permit documents requiring trail easements. The size of adjacent protection areas, called "buffers" in the guidelines, vary also and are determined on a case by case basis with consideration given to the archeological integrity of the specific trail, surrounding environment, land uses, land ownership, and nearby natural and cultural features. Refer to pages 144-145 of this document for an excellent discussion of treatments of buffers and areas outside of defined buffers.

plants near the trail could provide an opportunity for education about their cultural value without causing visitors to stray from the trail.

Public education: Signs and interpretive exhibits and brochures can inform the public of the need for preservation of cultural resources.

NATURAL RESOURCES

Generally, the Ala Kahakai NHT will be managed to ensure that natural systems are not significantly affected. Site-specific biological inventories and assessments developed with each trail segment management plan will provide sufficient information to evaluate options for trail development to help ensure that there are no adverse impacts from development or trail use. Resources identified as requiring special consideration are native plant and animal communities, anchialine pools, marine resources related to traditional coastal harvesting, cave ecosystems, and sensitive or threatened and endangered species habitat.

Native Plant Communities

The trail corridor encompasses a range of native plant communities, many of which are alien dominated: coastal strand, coast lowland and dry lowland communities, and open dry forest may be encountered. Each trail segment management plan will include an inventory of native plants and invasive species present. As possible, invasive species will be removed or controlled, with special emphasis on eradication of populations that are just beginning establishment. The tread of existing trail will be kept clear of invasive species. If a trail

segment requires construction, it will be located so as to avoid trampling or removal of native plants and adverse effects on sea turtle or Hawaiian monk seal resting areas.

Educational signs and exhibits may help in protection of native plant and animal communities.

Anchialine Pools

'Opae'ula, red shrimp, are the single most important factor indicating the health of an anchialine pool. Before a trail segment is officially opened to the public, the presence of red shrimp in trailside pools will be inventoried to provide a baseline of information. Then pools along managed trail segments will be monitored for the visible presence of red shrimp. Protocols for managing and monitoring pools developed at Waikoloa and Kaloko-Honokōhau NHP and other pool management plans required as a condition of development will be applied to other pools along the trail route. Trail administration will establish rules and regulations regarding public use of the pools. Use of the most high value pools could be restricted for traditional, research, educational, and sanctuary purposes. High value pools are those that have (1) an array of native anchialine species, (2) a unique assemblage of euryhaline (species with a wide tolerance to salinity), and/or marine species, or (3) unique cultural features (Brock and Kam, 1997, pp. 51-52). Assessment of cultural features will be made by Native Hawaiians, preferably with an association to the particular pool, or by an anthropologist/ethnographer. Public education through signs and interpretive exhibits, monitoring, and if necessary, trail use restrictions will be employed to protect pools along the trail route.



'ōhi'a lehua, NPS photo



Anchialine pond, Kaloko-Honokōhau NHP, NPS photo

Marine Resources Related to Traditional Coastal Harvesting Resources

In order to determine the extent of impacts, if any, in areas along the Ala Kahakai NHT where local fishers and gatherers have expressed concerns, baseline data will be assembled to establish the abundance and diversity of the existing nearshore and reef resources. Once a baseline is established, a monitoring program will determine the significance of the impacts. Should it be found that the Ala Kahakai NHT provides opportunities for outsiders or even local individuals to overfish or loot an area of nearshore or reef resources, trail use in the area will be closely monitored, the trail closed if necessary, and the individuals prosecuted to the limits of the state and federal law. The goal is to prevent these incidents from happening through close oversight of sensitive areas and enforcement of the law. Local fishers and gatherers will be included in trail planning to provide recommendations for fishery protection and sustainable gathering. This information could also be collected as ethnographic data. Interpretive media and informational materials will convey the limitations on fishing and gathering and encourage appropriate activities.

Watersheds and Marine Areas

Due to the sensitive nature of the watersheds and marine areas in the trail vicinity, the NPS will work closely with state and county agencies to ensure protection of these areas from soil erosion and other negative effects during construction or maintenance projects and during operations.

The NPS will consult with the Big Island Soil and Water Conservation District office, county of Hawaii, and with the Hawaii State Department of Health regarding best management practices and appropriate permits for these activities.

Cave Ecosystems

Caves are important cultural resources because they contain archeological resources and burials and have significance to contemporary Hawaiian people; however, they are important also for their scientific values related to their biological and geological resources. Under federal law and NPS guidelines, any cave found along the trail on federal land will be considered to be significant and its cultural, biological, and geological resources inventoried. After the inventory, the cave location and resources will not be published or made available to the public, but it may be appropriate to list the resources, without specific location information, in the NPS Inventory and Monitoring database. The preferred treatment is to keep the public out of caves on NPS land.

On nonfederal land along the Ala Kahakai NHT, the Hawaii Cave Protection Law of 2002 will apply. The law limits commercial uses of caves and allows use for educational, Native Hawaiian cultural, or scientific purposes with the written permission of the landowner. If trail segments on nonfederal land have associated caves, the NPS will encourage closure of the cave to public uses other than those permitted by law. The NPS will recommend an inventory of cave resources for any cave adjacent to



A throw-net fisherman at Kaloko-Honokōhau National Historic Park, Barbara A. Schaefer photo

the trail or accessible by it. In general, the trail will be aligned to move trail users away from caves that may contain significant natural resources, burials, or other culturally sensitive materials without calling attention to the cave itself.

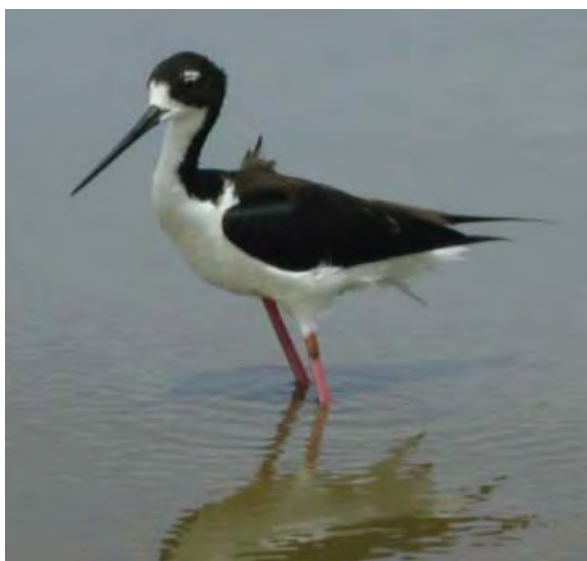
Endangered Plant and Animal Species

As of April 21, 2005, the U.S. Fish and Wildlife Service (USFWS) listed as federally endangered one mammal, four birds, one reptile, and two plants which may occur along the Ala Kahakai NHT corridor; as federally threatened, one reptile; and as candidates, one damselfly and one anchialine pool shrimp. In addition to the USFWS reported species, the NPS lists among the four parks four endangered flowering plants; two endangered birds, one threatened, and one candidate; one endangered mammal; and two candidate anchialine pool shrimp.

As of August 29, 2003, the Hawaiian Natural Heritage Program named as listed and candidate species, and species of concern 15 animal species, 13 invertebrate species, 31 plant species, and 13 natural communities. In addition, 13 plant critical habitats are listed.

As trail and site development occur and site-specific surveys identify species which have been listed or proposed by the USFWS. The National Park Service will contact the USFWS to initiate consultation under Section 7 of the Federal Endangered Species Act of 1973, as amended (Act). Potential adverse impacts to listed and proposed species will be eliminated or reduced in compliance with the provisions of the Act. State and county laws will also apply.

Specific suggestions from the USFWS for Endangered Hawaiian hoary bats (*Lasiurus cinereus semotus*) and endangered Hawaiian hawks (*Buteo solitarius*), which nest in both exotic and native woody vegetation, include the following: To avoid impacts to the bats, no woody plants suitable for bat roosting should be removed or trimmed during the bat birthing and pup rearing season (April to August). In addition, if the project involves fencing, the use of barbed wire should be minimized to avoid impacts to bats. To avoid impacting hawks, brush and tree clearing or trimming should not occur during the hawk nesting and breeding season (March through September), if hawk nests are present. Thus, surveys for hawk nests should occur prior to trimming or clearing activities.



Hoary bat, Hawaiian stilt, monk seal, NPS photos

On state lands, state listed endangered and candidate species will be protected by the state law, "Conservation of Aquatic Life, Wild Life, and Land Plants" (Chapter 195D, HRS). This law is similar to the federal law, except that the state law does not permit mitigation measures (mitigation is described as replacing a habitat in kind in another area to permit its destruction in one area). Also, unlike federal law, Hawaii state law protects endangered plants on private property.

FIRE MANAGEMENT

Within the four national parks, fire management along the Ala Kahakai NHT will follow the recommendations of each parks' completed fire management plan. Hawai'i Volcanoes NP is the only national park on the island of Hawai'i with fire fighting resources. Since there are no NPS fire-fighting resources on the western side of the island, the NPS and the county of Hawaii have an MOU for reciprocal fire protection and initial response. The NPS Pacific Island Fire Management Officer acts as the resource advisor for the four national parks.

For nonfederal land incorporated into the Ala Kahakai NHT, a fire management plan will be prepared in coordination with appropriate state and county agencies. Cultural resource specialists will participate in the preparation of the plan, and staff charged with fire management will be informed of significant cultural resource sites whose location is confidential. The plan will incorporate minimum impact tactics (MIT) guidelines (see Glossary for definitions) that assist fire personnel in the choice of procedures, tools, and equipment used in fire suppression and post-fire rehabilitation to maintain a high standard of caring for the land and resources.

Nonfederal fire responders will be encouraged to use MIT. Agency coordination will be crucial since MIT is not used by all agencies. The plan will consider fire suppression and the potential for low intensity prescribed burns or mechanical thinning projects to prevent larger fires, to reveal overgrown trail fabric or resources, and to stimulate seed production, rejuvenate plant populations, or lessen existing alien plant competition in existing areas of native species. The Pacific Island Fire Management Officer will act as the resource advisor for fires on nonfederal lands incorporated into the Ala Kahakai NHT.

Potential operational impacts to cultural resources along the trail include ground disturbance, vegetation removal, fire retardants, and damage

and looting of resources made visible by fire. Impacts caused by fire management operations related to the suppression of wildfires and the execution of prescribed burns and mechanical thinning projects will be addressed in the fire management plan. Generally speaking, the former have greater potential to result in significant impacts due to hurried execution.

WILDERNESS

Approximately 14 miles of the Ala Kahakai NHT corridor are in the wilderness area within Hawai'i Volcanoes NP. Park wilderness values include maintaining ecological integrity and biological diversity. Management of wilderness areas requires use of the Minimum Requirement decision-making process and the Minimum Tool required as a result of applying that process. (See the Glossary for definitions.)

The Wilderness Act requires that cultural resources within the wilderness areas be protected and maintained according to the pertinent laws and policies governing cultural resources, using management methods that are consistent with the preservation of wilderness character and values.

Trail marking and use within the wilderness area in Hawai'i Volcanoes NP will follow the recommendations of the Wilderness Management Plan for the park. Existing trail fabric and tread will be protected, but trail tread will not be constructed in the wilderness area; rather, wayfinding will be used. Minimal signs may include a small trail logo with a directional arrow. Interpretive exhibits will be kept to trailheads outside of the wilderness area. No facilities such as shelters or restrooms will be constructed within the wilderness area for Ala Kahakai NHT users.



cultural site, Ka'ū, NPS photo

Trail User Experience

Trail experience will be focused on understanding and appreciating Hawaiian values and cultural practice as found along a traditional system of trails. The experience will be comprised of activities and programs emphasizing the trail's significance and history and the use of trail systems in Hawai'i Island for access to subsistence resources and *wahi pana*.

TRADITIONAL USERS OR PRACTITIONERS

Trail management planning will seek to avoid or mitigate negative impacts on traditional cultural practices and facilitate use by traditional practitioners. The community planning teams will seek input and advice from traditional gathers and other practitioners on management planning to assure resource protection and sustainability, access timing, and other protocols.

RECREATION

Initially, the majority of trail use will be in-and-out single day excursions to portions of the Ala Kahakai NHT. A one-way day trip could occur with vehicles parked at each end of the trail segment. Using *mauka-makai* trails, the opportunity for loop trail experiences on the Ala Kahakai NHT may exist, increasing the time spent in one *ahupua'a* and enhancing the opportunity to understand the range of traditional Hawaiian land values. Interpretive emphasis will be placed on the particular area's history, stewardship opportunities, and cultural experiences. As sufficient continuous trail is managed and marked, strategically placed campsites and water sources will accommodate long-distance hiking. All trail users will be informed through

written and interpretive materials, signs, and exhibits about appropriate behavior practices and protocols to minimize negative impacts to cultural and natural resources within the trail corridor and to maximize safety to the trail user and respect for practitioners of traditional subsistence fishing and gathering. Guided tours along the trail could be provided by local trail managers or others with ties to specific trail segments. Specific sections of trail may be temporarily closed to allow for traditional uses.

The auto tour route using existing public roadways and access roads will be marked, and interpreted at appropriate and significant historic sites. Loop trails could increase the potential for auto route users to have a trail experience.

Ala Kahakai NHT administration will encourage special cultural events sponsored by the Ala Kahakai Trail Association or local community groups and focused on trail-related resource protection, awareness, and involvement. The official Ala Kahakai NHT logo could be used in association with such events as predetermined in a partnership agreement.

INTERPRETATION AND EDUCATION

The Ala Kahakai NHT office will launch a collaborative effort with trail segment management entities, Native Hawaiian families and groups, state and county agencies, private landowners, and trail support groups to increase resident and visitor understanding of the significance of the Ala Kahakai NHT as a trail system with associated resources and values. Integrated interpretive and educational programming will be tied to on-the-ground resources, *mo'olelo* (stories), and *wahi pana*



National Trails Day, Mauna Lani Resort, NPS photo



Cultural site at Kiholo, NPS photo

(storied and sacred places) of each trail segment. Trail users may be able to participate in coordinated programs that bring themed interpretation and education together with trail resources and landscapes along the NHT at federal protection components, recognized sites, marked trail segments, and interpretive facilities. Partnerships within the community management system will increase the availability and number of options for trail-related facilities, media, and interpretive and education programs.

A Comprehensive Interpretive Plan (CIP)

The CIP will be a priority of the interpretive program. It consists of three separate components. The Long-Range Interpretive Plan (LRIP), the centerpiece of the CIP, outlines the vision and goals for the interpretive program for several years and provides the interpretive guide for the trail. The LRIP relies on input and review from stakeholders concerned with the trail. The Ala Kahakai Trail Association and other partners will play a key role in helping develop the LRIP. Annual Implementation Plans outline the measurable actions taken yearly to implement the LRIP. The inclusion of annual plans in the CIP allows the LRIP to be dynamic and flexible enough to accommodate changing times and needs along the trail. Finally, the CIP includes an interpretive database, an inventory of legislative history, trail plans, visitor surveys, and interpretive media as they are developed for the trail.

Interpretive themes stated in chapter 1 that illustrate the significance and meaning of the Ala Kahakai NHT will serve as a foundation for developing this coordinated interpretive and educational plan. These themes provide the framework for development of any trail interpretation before completion of the CIP.



Trail at Kaloko-Honokōhau NHP, NPS photo

Interpretive Media

Media will be recommended in the LRIP for appropriate locations—national, state, and county parks, resorts, and other locations—to promote resource stewardship and support trail user safety, understanding and awareness of the need to preserve cultural and natural resources and the Hawaiian heritage embodied in the trail and its resources. Examples of media types that could be used are publications (including brochures, reports, newsletters, and a typical NPS map and guide), electronic media (including websites, radio broadcasts, cell phone downloads, CD rentals, MP3/ipod downloads), wayside exhibits, audiovisual media, traveling exhibits, and indoor exhibits associated with existing museums and visitor centers. Media and interpretation provided by others will be reviewed by the NPS. Written media will be in English, Hawaiian as feasible, and in the languages of the most numerous visitor groups. Appreciation and protection of the resources depends upon clear communication to visitors.

Until the LRIP is completed, the following three types of media will be a priority for guiding trail users and visitors in the interim.

Publications: Administration and partners could develop a newsletter or other publication. These will provide an overview of all the trail's interpretive themes. Administration will develop an initial official map and guide to provide overall orientation and information about the significance and resources of the Ala Kahakai NHT.

Website: The National Park Service website at <<http://nps.gov/alka>> will continue to provide updated information about the trail, recognition of sites and segments, and discussions about trail-



Trail marker, Nā Ala Hele Prog., State of Hawaii, NPS photo

related issues. Specific items available to visitors to the website include management documents, maps of included segments, information on associated sites, the auto tour route, and special events related the Ala Kahakai NHT.

Wayside exhibits: Although much better as part of a planned system, development and installation of a few wayside exhibits may become possible before the CIP is completed. Administration could support the installation of a few interpretive wayside exhibits at appropriate places on the Ala Kahakai NHT as long as an overall strategy is in place to promote the development of a consistent wayside exhibit system to blend with existing signs. Generally, wayside exhibits will be used in the more urban, developed areas rather than in remote trail locations. In more remote areas, a system of smaller signs that blend interpretation, resource protection, and safety could be placed near key features. The use of standardized exhibit design (following NPS wayside exhibit guidelines and standards) will be designed to reflect the essence of Hawaiian culture and to promote the integration of interpretive messages offered along the route. Care will be taken to ensure that waysides do not invite use of outlying cultural and natural resources without protection from vandalism and other adverse impacts.

Educational Programs

Programs will promote hands-on application, understanding, and appreciation of conservation values and ethics. They will provide a setting where people can learn from *kūpuna* or other traditional practitioners and share that knowledge with others. Opportunities will be available for communities to engage in an array of natural and cultural resource management activities as part of a continuum from early education to higher education and community or adult education programs. The trail could become an outdoor classroom, providing a land-based setting in which to learn school curriculum. These educational experiences along the Ala Kahakai NHT could serve as the basis for the creation of career and employment opportunities in the fields of culture, environment and sustainable economic development in which cultural conservation, building healthy communities, and environmental restoration are the goals.

Outreach presentations at local schools and civic organizations by qualified historians or others with accurate knowledge of Hawaiian culture, the role trails play in it, and the *ala loa* itself, will also be



Hikers along the trail between Keawaiki and 'Anaeho'omalu Bay, Barbara A. Schaefer photo

provided. Oral history will be emphasized. A school curriculum based on all of the trail's themes meeting the state of Hawaii's Department of Education's teaching standards and guidelines may be developed. The Ala Kahakai NHT website will feature these curriculum materials as they are developed.

Geotourism¹⁰

The Ala Kahakai NHT and its partners will work on initiatives to build local capacity for community-based economic development and revenue generating activities that incorporate geotourism principles.

Geotourism is defined as tourism that sustains or enhances the geographical character of a place—its environment, culture, aesthetics, heritage and well-being of its residents. The geotourism approach is all-inclusive, focusing not only on the environment

¹⁰ Information on geotourism is taken from the National Geographic Center for Sustainable Destinations at www.nationalgeographic.com/travel/sustainable/about_geotourism.html

but also on the diversity of the cultural, historic and scenic assets of the trail corridor. It encourages residents and visitors to get involved rather than remain as spectators. It encourages local small businesses and civic groups to build partnerships to promote and provide a distinctive, honest and authentic visitor experience and market their locales effectively and help community-based businesses to develop approaches to tourism that build on the area's nature, history and culture including food and drink, artisanry, performance arts, and so forth.

Geotourism

- encourages businesses to sustain natural habitats, heritage sites, aesthetic appeal, and local culture
- prevents degradation by keeping volumes of tourists within maximum acceptable limits
- seeks business models that can operate profitably within those limits

TRAIL IDENTIFICATION

The logo unique to the Ala Kahakai NHT will be incorporated into the standard triangular shape of the national trails system marker. The marker is a unifying emblem representing the trail and all of its partners. Marker use will be restricted to the NPS and its partners for applications that help further the purposes of the trail. This marker is protected against unauthorized uses as a federal insignia, as stipulated in 18 USC 701.

Sign specifications for marking the trail and use of the logo will be provided by the NPS through a sign plan developed in coordination with the Comprehensive Interpretive Plan. This plan will address the design, placement, and use of the logo on a variety of signs, such as highway information and directional signs, entrance signs at parking areas, trailhead information signs, regulatory signs, directional indicators, identity signs that distinguish unaltered and verified trail segments from linking trails, interpretive signs and wayside exhibits, wilderness area marking, private property signs, destinations signs, and trail partner or adopter signs. The sign plan will consider using both the NPS Unigrid standards on federal lands and typical approaches on national historic trails that cross many nonfederal jurisdictions.

To help commemorate the trail's national significance, the official marker will be placed along federal and other managed trail segments and sites in compliance with the sign plan. The NPS will provide the markers, but local managers on nonfederal lands will install them. Markers will be placed on private property only with the consent of the landowner. Markers will help individuals who want to follow the route by showing them the actual trail. Furthermore, by indicating the presence of the trail, markers may help protect the trail landscape from inadvertent destruction or from development.

Managed segments of a linear trail, parallel lateral trails, and *mauka-makai* trails will be marked. Efforts will be made to use the marker to guide users of the trail but not to clutter the landscape



Ala Kahakai NHT marker and sample renderings of signs with the marker

unnecessarily. In areas, such as wilderness areas, in which wayfinding is appropriate, low key substitutes for the markers might be developed to indicate the trail route. The role of partners in achieving the goals of the Ala Kahakai NHT could be recognized with signs at trailhead areas. At trailheads of segments of trail incorporated into the Ala Kahakai NHT, signs will be installed that identify permitted trail uses, directions to relevant public areas, information on safety, and protection of trail users and adjacent private property. Trail signs should be in English and Hawaiian, as feasible. For place names and site identification, the Hawaiian may appear first or at the top of a sign with the English translation underneath. Informational signs such as restroom locations, mileage, safety messages, property delineations, and so forth could be in English, Hawaiian, and other common visitor languages, as feasible and appropriate.

With the cooperation and assistance of road-managing agencies and in compliance with the sign plan, auto route signs will be placed along state and county roads at appropriate road junctions (consistent with the sign regulations of the managing highway department). Information signs to direct auto users to local sites or segments may also be used.

HEALTH AND SAFETY

The user of the Ala Kahakai NHT can encounter a variety of hazards depending upon the location of the trail, and user experience could be affected. Trail users could experience adverse impacts to their health from volcanic smog (vog), from volcanic haze (laze), or from heat, dehydration, and exposure if they are unprepared for the rigors of some sections of the trail. Hazards exist in some areas because 'a'ā lava provides unsure footing. Unexpected earthquakes or tsunami could occur. In addition, parts of the Ala Kahakai NHT offer easy access to the ocean, and visitors unfamiliar with ocean conditions may be tempted to swim in unsafe areas. Segments of the Ala Kahakai NHT not now available to the public, but which may become available, are largely in remote areas far from emergency aid. As a rule, lifeguards, park rangers, or other emergency help will not be present.

Other health hazards include fire, tsunami, poisonous insects, potential exposure to *leptospirosis*, flash floods, unsanitary conditions at some beaches, and lack of potable water. Health and safety issues will be addressed as appropriate

for each segment of trail or each site along the trail. Trail visitors will learn of potential dangers and the necessary precautions to take from brochures and other written information, from postings on the trail website, from signs at trailheads or trail sites, and from other forms of interpretive media.

USER CAPACITY

The National Trails System Act, as amended, requires that carrying capacity be addressed in a CMP. Carrying capacity, now called "user capacity" by the NPS, is defined as the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions and visitor experiences that complement the purpose of the Ala Kahakai NHT and its desired conditions.

The nature of a national trail like the Ala Kahakai NHT provides a challenge to developing meaningful measures of user capacity. It traverses diverse landscapes, ancient and modern, urban and rural. Trail boundaries are difficult to determine. Potential trail sites and segments are managed by several agencies and private landowners, often have uncontrolled access, and serve multiple uses. Each site or trail segment's capacity to withstand various types of uses depends on complex combinations of environmental, cultural, and social factors that range from extremely susceptible to remarkably resistant to impacts. Land uses and visitor experiences on specific sites and segments cannot be easily monitored or controlled. Nonetheless, a meaningful strategy is necessary to determine and evaluate sustainable uses and levels for individual sites and segments over time and, thus, to ensure that the full range of the trail's most significant resources are preserved to perpetuate the values and characteristics for which a trail was established as part of the National Trails System.

The premise behind user capacity is that some level of impact invariably accompanies public use; therefore, the public agency must decide what level of impact is acceptable and what actions are needed to keep impacts within acceptable limits. Two important components of user capacity for the national trail are trail-related resource conditions (e.g. condition of the trail surface, integrity of cultural sites, and health of wildlife and plant community populations) and social capacity (e.g. congestion or crowding affecting solitude and opportunities to experience nature on the trail). Ideally, if user capacity in any given area of the trail

were exceeded for either of these components, a management action would be elicited.

User capacity methodologies currently employed by most land-managing agencies follow the “limits of acceptable change” process developed by the USDA Forest Service in the mid-1980s. This process involves the following steps:

- develop prescriptions for resource and visitor experience conditions in various land units or zones
- identify indicators (measurable variables) of those conditions that can be monitored over time (e.g. number of areas of trail erosion or widening of the trail to twice the width of adjacent sections)
- set standards that represent minimum acceptable conditions (e.g. no more than two occurrences in each mile of trail)
- monitor conditions in relation to indicators and standards (e.g. annually inspect all trail segments to assess their condition)
- take management actions to ensure that conditions remain at or above standard (e.g. temporarily close the trail until corrective measures are completed, or redesign the route, or organize and conduct trail work parties, or change the standard.

With this approach, user capacity is not a set of numbers or limits, but rather a process involving establishing desired conditions, monitoring, and evaluation, followed by actions to manage visitor use to ensure that trail values are protected.

Since no established use patterns exist for the Ala Kahakai NHT, this CMP addresses user capacity as a set of potentialities in the following ways:

- It provides trail classifications and prescriptions (see pp. 54-58) for desired resource conditions, visitor experience opportunities and general levels of development and management for different types of trail. These are the basis for user capacity decision-making.
- It suggests potential use-related concerns to serve as the foundation for considering indicators for monitoring and needed management strategies.
- It suggests potential indicators, based on

the use-related concerns, which could be monitored as needed in the future to help identify unacceptable impacts from public use. In future specific site and segment management plans, when the trail staff selects an indicator to monitor, a corresponding standard will be identified.

- It suggests a general range of management actions that may be taken, as needed, to avoid and minimize unacceptable impacts from public use.
- Finally, it offers an approach to priority setting for monitoring called the “Index of Vulnerability.” Monitoring is the last step of user capacity decision-making that continues indefinitely after approval of this CMP.

Potential Use-related Concerns

The NPS and key partners intend to work together to manage, coordinate, and expand trail user opportunities, including interpretation of the important stories of the trail. There is an expectation that public use will increase and the trail will become better known. With this potential for increasing public use, the following summary outlines some concerns that may arise as conditions change, challenging the ability of the NPS and the key partners to manage for the desired conditions outlined above.

- Increased public access and use could impact areas of deep spiritual or cultural significance to Native Hawaiians and their use of these areas to practice their cultural traditions. Trail users might not be respectful of these traditions.
- Cultural landscapes, archeological sites, historic structures, traditional places are the chief resources for interpretation and visitation. The trail, itself a cultural resource, is the major way for users to understand and experience the Hawaiian culture. These resources are particularly sensitive to public use and are non-renewable, so care must be taken in planning and managing use in these areas. In general, impacts from theft and vandalism may affect all classes of cultural resources along the trail. Unaltered trail segments, in particular, will need to be monitored and managed to maintain their integrity with on-going regular visitor use,

including the evaluation of soil erosion, vegetation changes, and trail width.

- Informal trail activity, where visitors leave the designated national trail, may be a concern in the future. Informal trails cause vegetation damage, soil erosion, and disturbance of wildlife. But more importantly for Ala Kahakai NHT, informal trails may lead people to direct contact (intentionally or unintentionally) with sensitive cultural and natural resources. When access occurs in non-designated areas near the Ala Kahakai NHT in close or direct contact with sensitive resources, a variety of impacts such as trampling damage, erosion, site disturbance, exposure of sensitive materials, and illegal collection may occur. The unearthed archeological resources, sacred sites, elements of the cultural landscape, and rare plants are particularly sensitive to these types of impacts.
- Camping along the trail may affect the cultural and natural environment. Similar to the impacts associated with informal trail activity, this type of use may cause trampling, erosion, site disturbance, exposure of sensitive archeological materials, or damage to other elements of the cultural landscape. If campsites

are remote, the difficulty of supervision may lead to intentional or unintentional incidences of site damage, vandalism, and theft.

- Natural resources may also be affected by trail use. Sensitive and rare plants and wildlife in certain areas may be affected by trampling and site disturbance. As feasible, the trail and interpretive points should be sited away from these resources.
- As the trail becomes a heritage tourism site, existing facilities that support public use could experience unintentional resource damage, visitor crowding, and disturbance of private property owners. In particular, the increasing presence of tour bus activity that is not regulated or pre-arranged may overcrowd sites and create visitor conflicts.
- Increasing public use may degrade visitor experiences by causing visitor crowding at sites along the auto tour. If visitors cannot gain access to an important vantage point or read an interpretive panel due to high volumes and density of use, visitor frustration may occur, along with a lost opportunity for understanding the trail's important stories. Further, visiting historic sites with long wait times may impact the



Left photos: Visitors at Kaloko-Honokōhau NHP
Above: Visitors in line at the USS Arizona Memorial
NPS photos

visitor experience resulting in frustration and eventual displacement. Finally, use conflicts or crowding on the trail could be a problem for the local community if the trail becomes heavily used by other visitors.

Potential User Capacity Indicators and Related Management Actions

Based on the potential use-related concerns of the trail, the following section outlines possible resource and visitor experience indicators that may be monitored to address the concerns. A general range of potential management actions is identified for each indicator, but this list may not be inclusive of all management actions that may be considered in the future. Further, some management actions may not be appropriate to all trail classifications. The final selection of any indicators and standards for monitoring purposes or the implementation of any management actions that affect use will comply with National Environmental Policy Act, section 106 of the National Historic Preservation Act, and other laws, regulations and policy, as needed. Potential indicators are listed below along with potential management actions.

- Incidences of effect on Native Hawaiian traditional practice

Management actions that may be considered to avoid or minimize these impacts include: educate trail users to Native Hawaiian values and to respectful behavior, direct visitors to alternate locations along the trail when important cultural activities are underway, develop a reservation or permit system to redistribute or limit use, limit use on specific segments to guided tours.

- Incidences of site disturbance, trampling, or damage to elements of the cultural landscape or exposure of cultural material such as archeological resources

Management actions that may be considered to avoid or minimize these impacts include: institute a policy to restrict off-trail travel or climbing on above-ground cultural resources, provide information on the regulations and the importance of staying on the Ala Kahakai NHT and off of resources to protect sites, manage sites to better define appropriate use areas, erect signage to better define appropriate use areas or areas that are off-limits to use, increase enforcement, institute a volunteer watch program, close specific areas, redirect use to alternate areas, rehabilitate sites, reduce use levels.

- Numbers of informal trails or areas of trampling disturbance, especially in close proximity to sensitive natural and cultural resources.

Management actions that may be considered to avoid or minimize these impacts include: institute a policy to restrict off-trail travel, educate the user to the fragility of the resources, provide information on the regulation for off-trail activity and the importance of staying on Ala Kahakai NHT to protect resources, manage sites to better define appropriate use areas, erect signage to better define appropriate use areas or areas that are off-limits to use, increase enforcement, close specific areas, redirect use to alternate areas, rehabilitate sites, reduce use levels.

- Numbers of fires and numbers of injuries as indicators of overuse

Management actions that may be considered to avoid or minimize these impacts include: educate users on the potential for fire and injury and the ways to avoid them, limit or disallow fires, reduce use levels in areas where fires or injury are frequent.

- Incidences of vandalism or theft of cultural resources

Management actions that may be considered to avoid or minimize these impacts include: institute a no-collection policy for the public, increase information on the sensitivity and value of the trail's cultural resources and on the no-collection policy, increase patrols and law enforcement in target areas, institute a volunteer watch program, discourage the purchase of archeological resources, direct use away from sensitive cultural resource areas, close areas with sensitive cultural resources.

- Condition of trail tread (e.g., width, incidences of erosion, change in vegetation)

Management actions that may be considered to avoid or minimize these impacts include: clearly define trail by keeping the tread clear of weeds or other encumbrances, educate the user to stay on the trail, increase information on the sensitivity and value of the trail's cultural and natural resources, close specific sections of the trail and re-route use, change allowed uses, reduce use levels

- Condition of campsites (e.g. incidences of erosion, change in vegetation or wildlife patterns, damage to cultural elements of the landscape)

Management actions that may be considered to avoid or minimize these impacts include: educate the user on the resources of the area and on minimizing the impacts, limit or disallow fires, institute a permit system to manage the site for a specific number of users and duration of use.

- Incidences of disruption to private property owners

Management actions that may be considered to avoid or minimize these impacts include: educate users on minimizing disturbance to private property owners, sign private property, manage the trail and sites to better define appropriate use areas, focus management on areas where trash dumping or vandalism is occurring, institute a licensed/certified guide program, increase enforcement, close specific areas, redirect use to alternate areas, reduce use levels.

- People at one time at important interpretive sites, markers, or viewpoints (auto tour route)

Management actions that may be considered to avoid or minimize these impacts include: provide advanced planning information to encourage visits to lesser used areas or off-peak times, provide real-time information about parking availability, close areas when full and actively redistribute use to other sites, re-route access points to better distribute use, reduce use levels, schedule visits by large groups.

Approach to Priority Setting for Monitoring of Indicators

Once indicators and standards are in place, it is important to set priorities and schedule monitoring. One method that may be used to highlight priority areas of concern is the “Index of Vulnerability” model¹¹ proposed in the *Comprehensive Management and Use Plan/Environmental Impact Statement for the Oregon, California, Mormon Pioneer, and Pony Express National Historic Trails* (NPS, 1998c)¹². This approach proposes to predict specific trail sites and segments that have the highest potential for overuse and related impacts leading to the need for higher levels of management attention (monitoring actions).

¹¹ This method was developed by Susan C. Boyle, NPS historian at the Denver Service Center.

¹² The text on the Index of Vulnerability is generally quoted from this plan but modified for the conditions along the Ala Kahakai NHT.



Ali'i Drive, Kailua, N. Kona, cultural site, Kaloko-Honokōhau NHP, NPS photos

Modified for the Ala Kahakai NHT, the index of vulnerability could take into account the following factors related to both resource and visitor experience concerns:

- fragility of the cultural resources (the type of trail fabric, the nature and number of cultural resources, the importance to Native Hawaiians, etc.)
- vulnerability of natural resources (the presence of invasive species, the nearness of nesting areas, the rarity of the plant communities, etc.)
- ease of access (proximity to a highway or access road, condition of the access road)
- proximity to population centers (resorts, tourist attractions, etc.)
- popularity of the sites or trail segment (proximity to popular sand beaches or other attractions)
- degree of unauthorized uses (presence of off road vehicles, for example)
- sensitivity of the user experience (solitude, contemplativeness, traditional use)

During the inventory and assessment of the entire trail, a rating could be assigned for each of the factors along specific trail segments:

- 1 = little potential for impact
- 2 = moderate potential for impact
- 3 = high probability of impact

Each site or segment could receive a composite score or index. Factors could be weighted so that the more important factor for a particular site or segment could receive more weight. Sites or segments receiving a high rating will be more likely to experience heavy visitation and will be least likely to tolerate added intense use without suffering long-term resource or user experience impacts. Potentially, these sites and segments will be threatened and require frequent and careful monitoring. If their condition showed unacceptable resource impacts or the user experience were compromised, management actions will be required. Until a more adequate strategy for their preservation or other values were developed, the trail segment could be temporarily relocated, interpreted from a distance, or even withdrawn from public use. Special measures should be adopted to prevent further destruction of the cultural, natural, and social resource values of these vulnerable places.

Regular monitoring requires close collaboration between the trail's administering office and the local management units along the trail. Trail conditions should be documented on a regular basis with the frequency determined by the index of vulnerability, by using photography and other means, at fixed points for easy comparison. These findings could be linked to GIS data sets.



Shoreline access sign, NPS photo

Facility Development

Trail administration will encourage the development of facilities that will address the health and safety of visitors to sites and trail segments that are included in the Ala Kahakai NHT. Appropriate visitor use facilities for the auto route include wayside exhibits, signs and markers, access roads, trailhead parking areas, and comfort stations, as necessary. The level of local interest and support will help determine the extent and scope of support facilities. Facility development should not impact archeological, historical, or natural resources. Any development should be environmentally and aesthetically compatible with trail resources.

The NPS will encourage development of trailheads and staging areas, as needed, for hikers to expedite both long distance travel and day use. Supportive development for trail users could include wayside exhibits, signs and markers, emergency contact sites and procedures for back country and wilderness use, potable water sources, campsites with composting toilets and shade shelters, and stiles or gates so that fence lines can be crossed without releasing livestock. At trailheads and parking areas, orientation signs and trail maps will be provided.

To protect visual resources, trail administration will develop design guidelines for trail and facility development for length of the trail. One source of guidelines is Minerbi (2004, p. 17) which presents a methodology for identifying scenic resources in the coastal zone. It accounts for landscape and topographic features, human perception, observation points, and objects of the observation that can be used to identify significant scenic areas along the Ala Kahakai NHT route, where scenery changes occur, and where the aesthetic experience



Beach trail at Pu'uohonua o Hōnaunau NHP, NPS photo

(always connected with the *mo'olelo* of the place) is enhanced.

Each trail segment to be incorporated into the Ala Kahakai NHT will receive site-specific planning that will locate improvements in a manner to least affect the area's visual character and views. Every attempt will be made to preserve views to the sea. Signs will be kept to the minimum required to inform trail users of safety, private property rights, and resource protection issues and will be designed to be appropriate to the area.

An interpretive exhibit plan for the entire trail will be developed and wayside exhibits and signs will be installed along the trail only at those sites that require interpretation for user safety, understanding, and enjoyment. *Mauka-makai* trails and canoe landings along the Ala Kahakai NHT could be marked and interpreted as appropriate.

Implementation

The CMP is a long-term plan for which NPS administrators and partners will take incremental steps toward reaching its goals. Additional resource studies and more detailed planning and environmental documentation will be completed as part of site and segment management plans completed in accordance with this plan.

The implementation of the CMP could take many years. Most components of the plan will require additional funding for implementation. They will be prioritized and implemented as funding becomes available. The Ala Kahakai NHT staff and its partners will actively seek sources of funding outside of the NPS operations budget, but there is no guarantee that all the components of the plan will be implemented.

Costs

Completing the trail will be incremental, based on available federal funding, the degree of state and county participation, support of local organizations and individuals, and the fundraising capacity of the Ala Kahakai Trail Association. No segment of trail will be included in the Ala Kahakai NHT until an appropriate and sustainable management plan is in place. The implementation of the plan will depend not only on future NPS funding and service-wide priorities, but also on partnership funds, time, and effort. There is no guarantee that funding and staffing needed to implement the plan will be

forthcoming. Full implementation of the plan could be many years in the future.

This cost estimate is based on completing, by the end of the approximately 15-year life of this CMP, 90 miles of trail: the 75-mile linear section of trail from Kawaihae (Pu'ukoholā Heiau NHS) through Pu'u honua o Hōnaunau NHP to Ho'okena and 15 miles of *mauka-makai* trails on federal or state lands. This area includes 3 national parks, sections of the state Ala Kahakai trail, several state parks, a county park, 7 miles of Ali'i Drive, resorts, and other private lands. It is anticipated that trail staff will be able to respond to needs in other areas of the trail corridor and protect them as possible even if they cannot be managed immediately for public use. Although the Ala Kahakai NHT is authorized to acquire land from willing sellers, no land acquisition through purchase is anticipated, and no land acquisition costs are included. All costs are in 2007 dollars.

OPERATIONS

A core of five full-time staff is planned to carry out the operational responsibility of the trail. The positions of interpretive specialist and volunteer coordinator/trainer will be added to the two currently funded positions as NPS funds allow. A law enforcement/interpretive ranger will be added in the event that the NPS takes over management of a significant number of state-owned trail segments. Other needed disciplines could be shared with other federal or state parks or provided with help from the Ala Kahakai Trail Association or other partners. It is also possible that core staff may have other skills needed such as GIS capability, archeology, anthropology, or ecology. Staffing goals include:

Core Staff

- Superintendent (funded)
- Community Planner (funded)
- Interpretive Specialist
- Volunteer Coordinator/ Trainer
- Law Enforcement/ Interpretive Ranger

Other needed disciplines

- Administrative Assistant
- GIS Specialist
- Trail Management Coordinator
- Archeologist
- Anthropologist/Ethnographer
- Cultural Landscape Specialist
- Ecologist
- Title Researcher/Abstractor
- Trail Maintenance Crew (2)

As shown on table 2, operational costs include staff salary and benefits, travel to sites and to assist support groups along the route; technical assistance; trail markers, brochure production, newsletter, publications, and interpretive media; and partner support. For cost estimating, the other needed disciplines are estimated at an average of 20% of a full-time employee although each discipline may be needed for longer and others shorter periods of time. Costs are based on FY 2007 dollars.

ONE-TIME COSTS

Studies

Trail preservation, management, and interpretation will require basic information provided by overview and assessment studies comprised of literature reviews of existing information and other research about the trail corridor. These include

environmental impact statements and other studies for projects along the coast, photographs and images, maps, oral history interviews, and other information available in libraries and archives. Costs for studies conducted over the 15-year period are shown on table 3.

Projects

One-time project costs include activities such as trail segment reconnaissance, cultural and natural resource reports, and management planning; boundary surveys; trail construction and restoration; trailhead and campsite development; and special projects such as video production and mapping.

The plan includes the potential for the NPS to consider managing trail segments owned by the state through the 1892 Highways Act and managed by the Nā Ala Hele Trails and Access program. Within the 75-mile sections of trail, Nā

Table 2: Annual Operations Costs (in 2007 dollars)

Item	Estimated Range of Costs
Salaries And Benefits (Core Staff)	\$419,000 – 513,000
Salaries And Benefits (Shared, part-time, or seasonal staff)	\$121,000 – 148,000
Office: Space Rental, Equipment, Supplies, Phones, Etc.	\$64,000 – 88,000
Travel (Including Cars, Interisland, and Mainland Travel)	\$28,000 – 38,000
Brochures, Interpretive Materials, Signs	\$30,000 – 40,000
Support to Partners	\$40,000 – 60,000
Total Annual Operation Costs	\$702,000 – 887,000

Table 3: One-time Costs (in 2007 dollars)

Studies of the Entire Trail Route	Estimated Range of Costs
Archeological Overview and Assessment	\$60,000 – 120,000
Ethnographic Overview and Assessment	\$75,000 – 100,000
Historical Overview and Assessment	\$50,000 – 75,000
Natural Resource Overview and Assessment	\$75,000 – 130,000
Facility and Infrastructure Study (roads, water, emergency services, etc)	\$50,000 – 60,000
Subtotal: Studies over 15 Years	\$310,000 – 485,000
Projects	
Trail Segment Reconnaissance	\$140,000 – 160,000
Trail Segment Analysis and Planning (incl. resource inventories and assessments)	\$920,000 – 1,490,000
Metes And Bounds Surveys	\$121,000 – 495,000
Trail Restoration/Construction	\$675,000 – 900,000
Trailhead Improvement (4)	\$710,000 – 1,020,000
Campsite Development (2)	\$84,000 – 168,000
Facility Planning (25 % Of Construction)	\$363,800 – 573,000
Subtotal: Total Project Costs over 15 Years	\$2,848,000 – 4,530,000
Total One-Time Costs (Studies + Projects)	\$3,158,000 - \$5,015,000
Estimated Federal Share	\$1,263,200 - \$2,507,500

Ala Hele has documented that approximately 21 miles may be subject to the Highways Act and qualify as state owned.

Should the NPS take over on-the-ground management of these trail segments currently managed by Nā Ala Hele, they could become federal management entities. It is assumed for cost estimating purposes that funding sources beyond NPS base funding will be in place to help with the protection, interpretation, and management of these segments before the NPS will accept responsibility for them.

Any development outside of federal trail components will be funded by state or local governments or private groups, although the NPS may provide seed money, cost sharing incentives to private or non-federal entities, or technical assistance for planning, design, and legal and policy compliance. Cost share incentives could include, among others, design, construction, repair, and rehabilitation of historic facilities or non-historic facilities to serve as interpretive sites, visitor centers, partnership hubs, cultural and natural resource protection or restoration, and data collection on public and private properties. The NPS will provide interpretive media, where appropriate, and assistance in helping to obtain funding for needed development, including the solicitation of donations and grants.

Table 3 estimates the funds needed to complete the 75-mile portion of the Ala Kahakai NHT along with 15 miles of *mauka-makai* trails within the 15-year period of this plan in FY 2006 dollars. It is assumed that the federal share of one-time costs will range from 40% to no more than 50%.¹³

¹³ As with all national trails, federal project funds are limited and a variety of partners are expected to help with planning, constructing, managing, monitoring, and interpreting the trail with funds and in-kind services. The Feasibility Study projected a 50% nonfederal match for one-time costs. In this CMP estimate, the federal share on the low estimate (anticipating greater partner involvement and fundraising) would be approximately 40% and on the high estimate, 50%. This estimate does not guarantee that funding and staffing needed to implement the plan will be forthcoming. Full implementation of the plan could be many years in the future. These cost estimates suggest the range of federal funds in relation to partnership funds—state, county, nonprofit organizations, private entities, and individuals—required to open segments of the trail to the public.

FUNDING

Administration

Funding for the annual staff costs and some other operations costs will be provided by the base operating budget of the NPS. Ala Kahakai NHT administration will seek increases in its base funding to meet some of the needs outlined in this plan. However, the plan places major emphasis on partnerships, civic engagement, and *ahupua'a* management opportunities to address issues and meet administrative and management needs. Additional avenues for funding and other resources for plan implementation and annual operating costs will be explored.

It is anticipated that the Ala Kahakai Trail Association and other partners, in cooperation with the NPS, will be able to raise supplementary funds necessary to fulfill the goals of this plan. If this anticipation is not met, the projects and programs projected may be only partially realized.

Funds for brochures, other interpretive media, signs, and other needs may be available for mutually beneficial partnership projects through the NPS Challenge Cost Share Program, an appropriation from the U.S. Congress that may not be available every year. The competitive program requires the partner to provide a minimum 50% matching contribution in the form of funds, equipment, in-kind labor, or supplies from non-federal sources. Partners may include hiking clubs, school groups, individuals, private landowners, nonprofit organizations, charitable groups, or state and county government agencies.

Technical Assistance

Funds for major technical assistance projects (large-scale planning, design, or preservation) beyond administrative staff capabilities could be requested from the NPS long distance trails program, the NPS Rivers, Trails, and Conservation Assistance Program, the NPS cultural resource preservation program, or other sources.

Development/Preservation

Funds to develop recreational facilities on nonfederal lands could be sought from state or local governments or private groups or individuals, sponsorships, or federal or state highway and enhancement programs either directly or in partnerships. Funds may be used for contracted services.

NPS resource preservation funds could be sought to fund cooperative preservation efforts for federal components or established sites and segments. Aid from state and county preservation fund sources and programs as well as funds from donations, grants, and other sources could also be sought. Funds will be used to supplement existing data about high potential sites and to stabilize or otherwise conduct physical activities to conserve resources.

Action Items

This CMP notes several plans or activities that will be initiated as time and funding allow. These plans or activities are needed to achieve the long-range goals of completing a marked, interpreted, managed, and protected auto tour route and a trail from Kawaihae to Ho'okena including *mauka-makai* segments on state and federal lands. They are listed below for reference. Other plans may become necessary during the period of this plan.

MANAGEMENT, ADMINISTRATION, AND PARTNERSHIPS

- Signed Memorandum of Understanding between the NPS, the state, and the county of Hawaii
- Strategic Plan (p. 47, column 2, paragraph 1)
- Application for blanket authorization—Conservation District Use Permit (p. 48)
- Agreement on County Planning Strategy (p. 48, column 1, paragraph 3)
- Programmatic Agreement with SHPD (p. 62, column 2, paragraph 2)
- Database Development and Maintenance (p. 62, column 2, paragraph 3—inventory and assessment)
- Site and Features Form (p. 62, column 2, paragraph 3)
- Monitoring Protocol (p. 63, column 2, paragraph 2)
- Fire Management Plan (p. 68, column 1, paragraph 3)
- Website Development and Maintenance (p. 70, column 2, paragraph 4)
- User Capacity Standards (p. 74, column 1, paragraph 5)
- Design Guidelines for Trail and Facility Development (p. 78, column 2, paragraph 3)

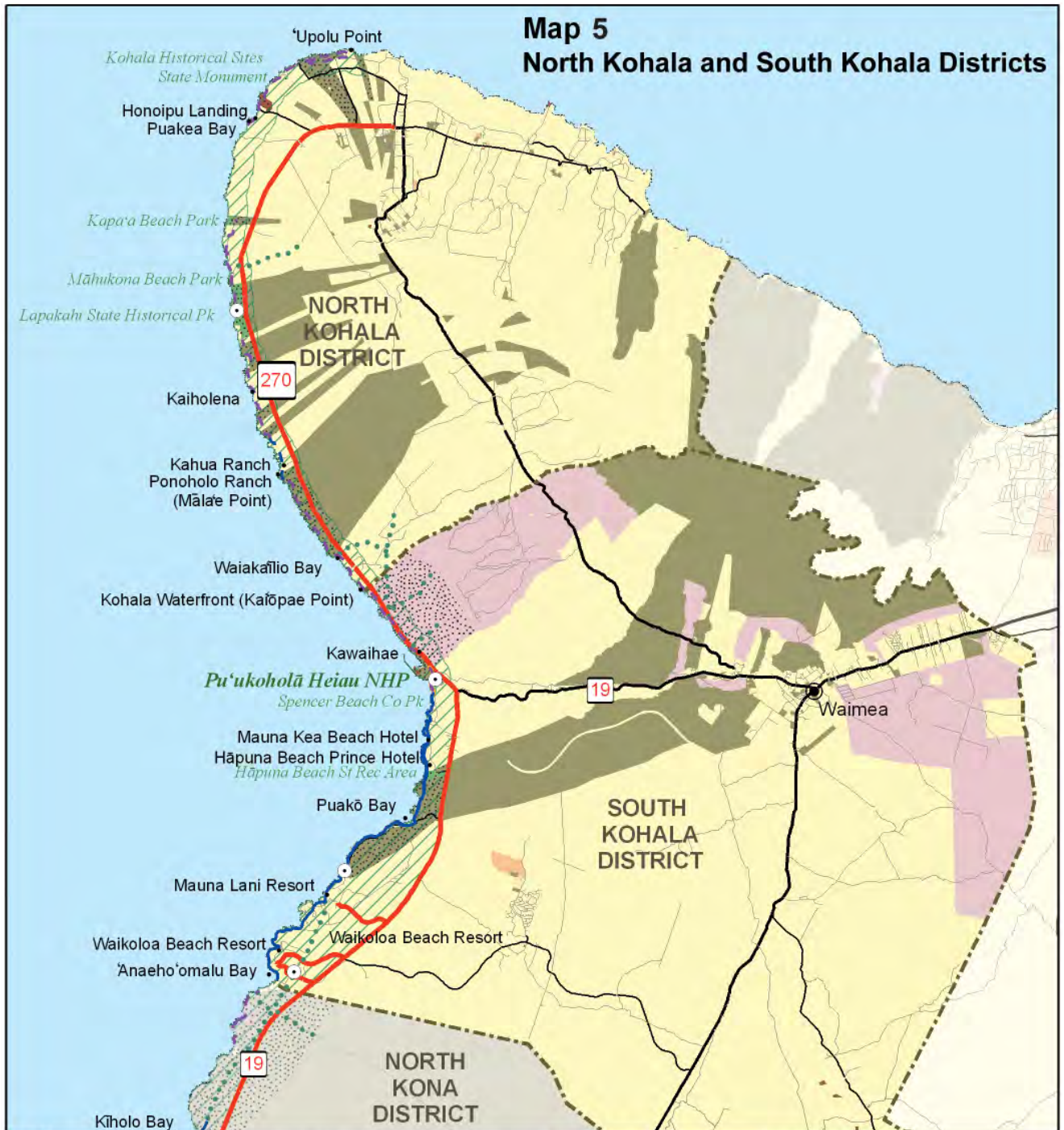
INTERPRETATION AND EDUCATION

- Comprehensive Interpretive Plan (p. 70, column 1, paragraph 2)
- Initial map and guide (p. 70, column 2, paragraph 3)
- Curriculum (p. 71, column 2, paragraph 1)
- Sign Plan (p. 72, column 2, paragraph 1—trail identification)
- Interpretive Exhibit Plan (p. 79, column 1, paragraph 3—facility development)



Naio (*Myoporum sandwicense*), juvenile 'auku'u, black crowned night heron (*Nycticorax nycticorax hoactli*), NPS photos

Map 5
North Kohala and South Kohala Districts



- Ala Kahakai NHT Corridor
- Potential Area of Consideration
- Parks
- STATE DISTRICTS

Existing Trails

- Ala Kahakai NHT (NPS Parks)
- Nā Ala Hele Jurisdiction

Potential Trails

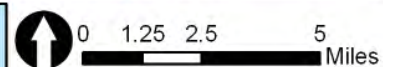
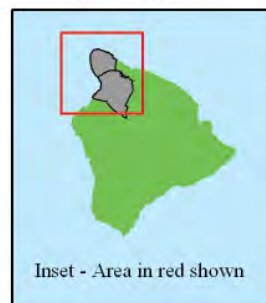
- Possible Connector Trail, if State Owned (1978 Inventory)
- Nā Ala Hele Inventory
- Possible Lateral Trail (1978 Inventory)

Land Ownership

- DHHL
- Govt. County
- Govt. State
- Govt. Federal
- Other ownership

Roads

- Highway
- Auto Tour Stops
- Auto Tour Route
- Primary
- Secondary
- Other road types



North Kohala and South Kohala Districts
Ala Kahakai National Historic Trail
7/2009

Note: This map is a planning tool. Many of the trail segments shown are proposed and not open to the public for any purpose. This map does not convey any rights to the public to use any of the trail segments shown; nor does it exempt any person from trespassing charges. For information on trail segments available for public use, contact Nā Ala Hele or the Ala Kahakai NHT administrative office.

Map 6 North Kona District



- | | |
|--|---|
| <p> Ala Kahakai NHT Corridor</p> <p> Potential Area of Consideration</p> <p> Parks</p> <p> STATE DISTRICTS</p> <p>Existing Trails</p> <p> Ala Kahakai NHT (NPS Parks)</p> <p> Ali'i Drive</p> <p> Nā Ala Hele Jurisdiction</p> <p>Potential Trails</p> <p> Possible Connector Trail, if State Owned (1978 Inventory)</p> <p> Nā Ala Hele Inventory</p> <p> Possible Lateral Trail (1978 Inventory)</p> | <p>Land Ownership</p> <p> DHHL</p> <p> Govt. County</p> <p> Govt. State</p> <p> Govt. Federal</p> <p> Other ownership</p> <p>Roads</p> <p> Highway</p> <p> Auto Tour Stops</p> <p> Auto Tour Route</p> <p> Primary</p> <p> Secondary</p> <p> Other road types</p> |
|--|---|



0 1 2 4 Miles

North Kona District
Ala Kahakai National Historic Trail
7/2009

Note: This map is a planning tool. Many of the trail segments shown are proposed and not open to the public for any purpose. This map does not convey any rights to the public to use any of the trail segments shown; nor does it exempt any person from trespassing charges. For information on trail segments available for public use, contact Nā Ala Hele or the Ala Kahakai NHT administrative office.

Map 7 South Kona District



- Ala Kahakai NHT Corridor
- Potential Area of Consideration
- Parks
- STATE DISTRICTS

Existing Trails

- Ala Kahakai NHT (NPS Parks)
- Nā Ala Hele Jurisdiction

Potential Trails

- Possible Connector Trail, if State Owned (1978 Inventory)
- Nā Ala Hele Inventory
- Possible Lateral Trail (1978 Inventory)

Land Ownership

- DHHL
- Govt. County
- Govt. State
- Govt. Federal
- Other ownership

Roads

- Highway
- Auto Tour Stops
- Auto Tour Route
- Primary
- Secondary
- Other road types



0 1.25 2.5 5 Miles

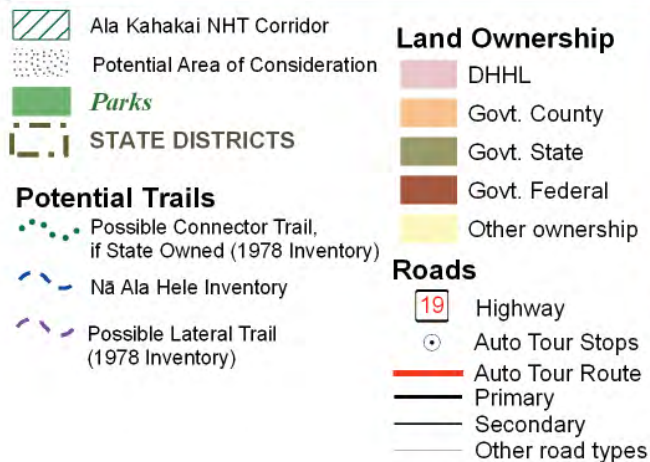
South Kona District

Ala Kahakai National Historic Trail
7/2009

Note: This map is a planning tool. Many of the trail segments shown are proposed and not open to the public for any purpose. This map does not convey any rights to the public to use any of the trail segments shown; nor does it exempt any person from trespassing charges. For information on trail segments available for public use, contact Nā Ala Hele or the Ala Kahakai NHT administrative office.



Map 8
Ka'ū District



0 1.25 2.5 5 Miles

Ka'ū District
(Manukā Bay to Pālima Pt.)
Ala Kahakai National Historic Trail
7/2009

Note: This map is a planning tool. Many of the trail segments shown are proposed and not open to the public for any purpose. This map does not convey any rights to the public to use any of the trail segments shown; nor does it exempt any person from trespassing charges. For information on trail segments available for public use, contact Nā Ala Hele or the Ala Kahakai NHT administrative office.



Preparers of the Plan

OVERALL PLAN PREPARERS

Michael Donoho, NPS planner, Ala Kahakai NHT office (resigned)
Meredith Kaplan, NPS planner, Pacific West Region, Oakland Office

NPS PLANNING TEAM

Aric Arakaki, Ala Kahakai NHT Superintendent
Ray Murray, Pacific West Region, Partnerships Chief
Martha Crusius, Pacific West Region, Oakland Office, Senior Planner
Gary Barbano, Pacific Islands Office Planner (retired)
Rob Hommon, Pacific Islands Cultural Resource Scientist/Archeologist (retired)
Barbara Butler, Pacific West Region, Oakland Office, Landscape Architect and GIS specialist
Jean Boscacci, Pacific West Region, Oakland Office, Planner

NPS Technical Advisory Team

Frank Hays, Pacific Area Director
Melia Lane-Kamahele, Pacific Area GIS Analyst, Cartographer
Catherine Lentz, Compliance Manager, Hawai'i Volcanoes National Park
Rick Gmirkin, Archeologist, Hawai'i Volcanoes NP (now Ala Kahakai NHT staff)
Geri Bell, Superintendent, Pu'uuhonua o Hōnaunau NHP and Koloko Honokōhau NHP
Cindy Orlando, Superintendent, Hawai'i Volcanoes NP
Daniel Kawaiaea, Superintendent, Pu'ukoholā Heiau NHS

NPS CONSULTANTS

Jim Gale, Chief of Interpretation, Hawai'i Volcanoes NP
Rhonda Loh, Botanist, Hawai'i Volcanoes NP
Dr. Jadelyn Moniz Nakamura, Integrated Resource Manager, Hawai'i Volcanoes NP
Linda Pratt, Botanist, U.S.G.S., Biological Resources Division
Laura C. Schuster, Cultural Resources Manager, Hawai'i Volcanoes NP
Dr. Frederick F. York, Regional Program Manager, Anthropology

CONSULTANTS IN HAWAI'I

Curt Cottrell, Nā Ala Hele Trails and Access Program Manager (now State Parks)
Deborah Chang, Hawai'i Trails and Access Consultant
Donna Downey, GIS analyst, State Historic Preservation Division (retired)
Eric Komari, State Historic Preservation Division (retired)
Kepā Maly, Anthropologist, Cultural Resources Specialist



Glossary

Anchialine pool: generally small brackish standing waters in rocky (lava) basins that vary in salinity and exhibit tidal fluctuations, although in most cases they lack a surface connection to the ocean.

Ancient trail: Used in this plan to refer to trails made in Hawaiian antiquity, predating western contact in 1778.

Archeological resource: any material remains or physical evidence of past human life or activities which are of archeological interest, including the effects of human activities on the environment (NPS 1998c).

Auto Tour Route: a route designated along existing roads. The route allows reasonably simple and direct travel either on or parallel to coastal *ala loa* route, keeping in mind traveler convenience and year-round safety. All roads selected for the auto route accommodate two wheel drive vehicles and are open year-round. The route will be marked with an identifying sign and the official trail marker.

Challenge cost-share agreement: any agreement entered into between the NPS and any cooperator for the purpose of sharing costs or services in carrying out authorized functions and responsibilities of the Secretary of the Interior with respect to any unit or program of the National Park System [Sec. 8(a) of the National Park Service Administrative Reform Act of 1996]. Challenge cost-share programs were developed to increase and strengthen partnerships in the preservation and improvement of cultural, natural and recreational resources for which federal land-managing agencies are responsible. Program funds are authorized at the discretion of the U.S. Congress each year.

Compliance: refers to a plan's conformity with federal regulations. Compliance with 12 federal laws, executive orders, and regulations and associated state regulations must be considered with actions related to this plan. The federal laws and executive orders are the American Indian Religious Freedom Act of 1979; Archeological Resources Protection Act of 1979; Endangered Species Act of 1973; Federal Cave Protection Act of 1998; National Environmental Policy Act of 1969; Native American Graves Protection and Repatriation Act of 1990; Section 106 of the National Historic Preservation Act of 1966, as amended; Section 110 of the National Historic Preservation Act

and Executive Order 11593; Wilderness Act of 1964; and Executive Orders 11988 (Floodplain Management), 11990 (Protection of Wetlands), and 12898 (Environmental Justice in Minority Populations and Low-Income Populations).

The NPS will coordinate compliance with federal laws and regulations for this plan. Compliance requirements and the NPS role in meeting them will depend on the type of action, its relationship to the trail, and the project sponsor.

For actions carried out by other federal, state, or local organizations, the NPS will provide technical assistance to meet the requirements of NEPA or other federal laws.

For actions of private owners or others at trail sites or segments not directly related to this plan and having no federal involvement through funding, licensing, permitting, endorsement, or other support, compliance with NEPA or other federal regulations will not be required. State and local requirements may apply.

Actions involving federal funding that are not implementing recommendations in this plan may still have an impact on trail resources. For example, a federally assisted highway project proposed by a state government could adversely affect historic resources. In this case, the project sponsor would be responsible for meeting NEPA and other compliance requirements. The NPS would provide comments and other assistance in addressing impacts on trail resources.

Comprehensive Interpretive Plan (CIP) consists of three separate components. The Long-Range Interpretive Plan (LRIP), the centerpiece of the CIP, outlines the vision and goals for the interpretive program for several years and provides the interpretive guide for the trail. Annual Implementation Plans outline the measurable actions taken yearly to implement the LRIP. Finally, the CIP includes an Interpretive Database – an inventory of legislative history, trail plans, visitor surveys, and interpretive media as it is developed for the trail.

Cooperative Agreement: a clearly defined, written arrangement between two or more parties that allows some specific action to be taken while protecting the landowner interests (for example, to allow access for resource protection and management, interpretation or recreation; to allow the posting of markers or signs; or to allow others to manage activities or developments).

Cultural Landscape: a geographic area, including natural and cultural resources and the wildlife and domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general types of cultural landscape: ethnographic landscape, historic designated landscape; historic site; and historic vernacular landscape (NPS 1998c).

Cultural Landscape Report (CLR): the primary report that documents the history, significance and treatment of a cultural landscape. A CLR evaluates the history and integrity of the landscape including any changes to its geographical context, features, materials, and use. A CLR will often yield new information about a landscape's historic significance and integrity, even for those already listed on the national register. Where appropriate, national register files should be amended to reflect the new findings (NPS 1998c).

Ethnobotany: the study of plants used by specific cultures for various reasons. The field acknowledges those who are in continual contact with plants permitting them to classify, in their way, the plants and to generate cultural rules for manipulating the plants and their local environments.

Ethnographic Landscape: areas containing a variety of natural and cultural resources that associated people define as heritage resources, including plant and animal communities, geographic features, and structures, each with their own special local names (NPS 1998c).

Ethnographic Landscape Study: a field study that typically involves working with stakeholders in visits to park landscapes. These studies differ from the more generic cultural landscape studies conducted by NPS because primary ability and authority to identify and describe it are given to the traditionally associated stakeholders themselves (NPS 1998c).

Ethnographic Overview and Assessment: a comprehensive background study, this document reviews existing information on park resources traditionally valued by stakeholders. The information comes mostly from archives and publications; interviews with community members and other constituents—often on trips to specific sites—supply missing data. This study also identifies the need for further research (NPS 1998c).

Ethnographic Resource: a site, structure, landscape, or natural resource feature assigned traditional legendary, religious, subsistence or other significance in the cultural system of a group

traditionally associated with the resource. An ethnographic resource is defined by its significance to a traditionally associated group (NPS 1998c).

Endemic Species: native to a particular place; in this case, occurring naturally in Hawai'i and nowhere else.

General Authorities Act (1970): includes all areas administered by the National Park Service in one National Park System and clarifies the authorities applicable to the system. Areas of the National Park System, the act states, "though distinct in character, are united through their inter-related purposes and resources into one national park system as cumulative expressions of a single national heritage; that, individually and collectively, these areas derive increased national dignity and recognition of their superb environmental quality through their inclusion jointly with each other in one national park system preserved and managed for the benefit and inspiration of all people of the United States..."

High Potential Historic Site or Route Segment: a site or segment identified according to the procedures outlined in section 5(e) of the National Trails System Act. Each site or segment must provide opportunities to interpret the trail's historical significance and to provide high quality recreation along a portion of the route. Route segments should have greater than average scenic values and should also help visitors appreciate the experience of the original trail users. Criteria include historical significance, the presence of visible historic remains, scenic quality, and relative freedom from intrusion. The management planning process determines if sites, trail segments, or associated resources are to be included as official components of the national historic trail.

Historic Designed Landscape: a landscape significant as a design or work of art (NPS 1998c).

Historic Site: a landscape significant for association with a historic event, activity, or person (NPS 1998c).

Historic Structure: a constructed work, usually immovable by nature or design, consciously created to serve some human activity. This category includes trails and ancient earthen structures as well as buildings, bridges, among others (NPS 1998c).

Historic trail: used in this plan to refer to trails developed in Hawai'i post-western contact after 1778 until 1892 when the Highways Act was passed.

Historic Vernacular Landscape: a landscape whose use construction, or physical layout reflects endemic tradition, customs, beliefs, or values (NPS 1998c).

Indigenous Species: occurring naturally in a particular region or environment; in this case, native to Hawai'i but occurring naturally outside of Hawai'i also.

Interpretation: communicates the significance of the history and resources of a park or trail. A synonym might be "education." It aims to reveal meanings and relationships through original objects, firsthand experience, and illustrative media rather than only to convey factual information. If done well, interpretation can convey the *quality* of experience.

Laze: clouds of mist formed when hot lava reaches sea water.

Memorandum of Understanding: a mutual understanding between the National Park Service and a state or local government or another party that is set forth in a written document to which both parties are participants. A memorandum of understanding does not obligate funds. It is comparable to nonfederal cooperative agreements that may be negotiated between other parties.

Minimum Impact Tactics (MIT): guidelines that assist fire personnel in the choice of procedures, tools, and equipment used in fire suppression and post-fire rehabilitation that will maintain a high standard of caring for the land. These techniques reduce soil disturbance, impact to water quality, noise disturbance, intrusions in the wilderness, and cutting or trampling of vegetation. NPS guidelines, outlined in DO-18, are applied to site conditions, and current and expected fire behavior to determine the appropriate MIT actions.

Minimum Requirement Analysis (MR): is used to determine the least impacting way of administering the wilderness. The wilderness manager may authorize any of the generally prohibited activities or uses listed in Sec. 4(c) of the Wilderness Act if they are determined to be the minimum necessary to do the job and meet wilderness management objectives.

Minimum Tool Analysis (MT): is used to determine which method of implementing the proposal would have the least impact on the wilderness resource while still allowing the project to be completed safely and successfully.

Generally at least three alternatives are evaluated in the minimum tool analysis; an alternative using non-motorized, non-mechanized equipment, an alternative using motorized and/or mechanized equipment, and one alternative using a combination of the methods. Impacts to naturalness, solitude, primitive recreation and special features are evaluated for each alternative. That method that has the least impact on the wilderness resource and allows the project to be successful is determined to be the minimum tool.

National Historic Trail: a trail designated by an act of Congress. In addition to meeting the requirements of feasibility and desirability, a national historic trail must meet the following criteria:

- 1) It must be a trail or route established by historic use and must be historically significant as a result of that use. The route need not currently exist as a discernible trail to qualify, but its location must be sufficiently known to permit evaluation of public recreation and historical interest potential.
- 2) It must be of national significance with respect to any of several broad facets of American history, such as trade and commerce, exploration, or migration and settlement. To qualify as nationally significant, historic use of the trail must have had a far-reaching effect on broad patterns of American culture.
- 3) It must have significant potential for public recreational use or historical interest based on historic interpretation and appreciation.

National Register of Historic Places (NRHP): the Nation's official list of cultural resources worthy of preservation. It is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. It is defined in section 106 of the National Historic Preservation Act (NHPA) and 36 CFR Part 800, the implementing regulations for the NHPA. Archeological resources, historic structures, cultural landscapes, traditional cultural properties, and ethnographic resources may be eligible for the register. A resource needs to be 50 years old to be considered eligible for national register listing unless the resource is of exceptional significance.

Criteria for consideration include the quality of significance in American history, architecture, archeology, engineering, and culture present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting,

materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of significant persons in or past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded or may be likely to yield, information important in history or prehistory.

National Trails System: a system of national recreation trails, national scenic trails, and national historic trails established by the National Trails System Act. Refer to appendix A for the Act.

Oral and Life History Study: chronicles important events and associated places in parks, and relates them to the context of individual and community ways of life. These studies involve prolonged collaboration between interviewer and interviewee, essential when rapid change threatens a traditional culture, when elders and their stories are unrecorded, and when subsistence areas, practices, and knowledge require documentation. Methods include a wide range of open-ended and focused interviews which can be compared against documentation, when it is readily available (NPS 1998c).

Organic Act (1916): the act establishing the National Park Service to “promote and regulate the use of the Federal areas known as national parks, monuments, and reservations ... by such means and measures as conform to the fundamental purpose to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment for the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

Preservation: the act or process of applying measures to sustain the existing form, integrity, and material of a historic structure, landscape or object. Work may include preliminary measures to protect and stabilize the property, but generally focuses upon the ongoing preservation maintenance and repair of historic materials and features rather than extensive replacement and new work. Preservation

involves the least change, and is the most respectful of historic materials. It maintains the form and material of the existing landscape (NPS 1998c).

Rapid Ethnographic Assessment (REAP): a package of interview, observation, focus group, site walks, mapping, and documentary analysis techniques used when there is a need for information in advance of specific actions—like establishing a new park—that may affect a group’s resources and thus its traditions. More focused than the Overview and Assessment, REAP helps satisfy the requirements of the National Environmental Policy Act, and considers the views of various stakeholders as its primary focus. This package can yield new ways to manage places deemed important by group members, as well what they want to share with the public (NPS 1998c).

Rehabilitation: Rehabilitation usually accommodates contemporary alterations or additions without altering significant historic features or materials, with successful projects involving minor to major change. Rehabilitation attempts to recapture the appearance of a property, or an individual feature at a particular point in time, as confirmed by detailed historic documentation (NPS 1998c).

Reconstruction: the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. Reconstruction attempts to recapture the appearance of a property, or an individual feature at a particular point in time, as confirmed by detailed historic documentation (NPS 1998c).

Restoration: the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period (NPS 1998c).

Traditional Coastal Fishing and Harvesting: a subsistence practice of those fishers who engage in limited fishing and gathering activities to feed their extended families identified with a specific region and associated through bloodlines and friendships which have developed over generations.

Traditional Cultural Property: a site or place that is eligible for inclusion on the national register

because of its association with cultural practices and beliefs (1) that are rooted in the history of a community and passed on through the generations in oral literature or history, and are (2) important to maintaining the continuity of the community's traditional beliefs and practices.

Tsunami: a large, rapidly moving ocean wave triggered by a major disturbance of the ocean floor, which is usually caused by an earthquake but sometimes can be produced by a submarine landslide or a volcanic eruption. Tsunamis are also referred to as "tidal waves," but they have no relation to tides (USGS).

Universal Design: related to "inclusive design" and "design for all," the design and production of products, services, and environments that promote equal opportunity for use by individuals with or without disability regardless of age, ability, or circumstance.

View Plane: Viewshed; the entire area an individual can see from a fixed vantage point; in Hawai'i, a significant landscape element seen from a public road or trail.

Vog: Volcanic smog.

Wayside exhibit: a display which provides orientation or briefly tells a site-specific story in an outdoor setting. Encountered on a casual basis by the visitor, a wayside exhibit often explains a natural scene, historic resource, or an event at a place where a visitor would have questions. A wayside incorporates graphics such as photos, art, or maps as well as text. Without graphics, the medium becomes an interpretive sign.

APPENDICES



Appendix A: Ala Kahakai National Historic Trail Act

PUBLIC LAW 106-509—NOV. 13, 2000

114 STAT. 2361

Public Law 106-509

106th Congress

An Act

To amend the National Trails System Act to designate the Ala Kahakai Trail as a National Historic Trail.

Nov. 13, 2000

[S. 700]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Ala Kahakai
National Historic
Trail Act.
16 USC 1241
note.

SECTION 1. SHORT TITLE.

This Act may be cited as the “Ala Kahakai National Historic Trail Act”.

SEC. 2. FINDINGS.

Congress finds that—

(1) the Ala Kahakai (Trail by the Sea) is an important part of the ancient trail known as the “Ala Loa” (the long trail), which circumscribes the island of Hawaii;

Hawaii.

(2) the Ala Loa was the major land route connecting 600 or more communities of the island kingdom of Hawaii from 1400 to 1700;

(3) the trail is associated with many prehistoric and historic housing areas of the island of Hawaii, nearly all the royal centers, and most of the major temples of the island;

(4) the use of the Ala Loa is also associated with many rulers of the kingdom of Hawaii, with battlefields and the movement of armies during their reigns, and with annual taxation;

(5) the use of the trail played a significant part in events that affected Hawaiian history and culture, including—

(A) Captain Cook’s landing and subsequent death in 1779;

(B) Kamehameha I’s rise to power and consolidation of the Hawaiian Islands under monarchical rule; and

(C) the death of Kamehameha in 1819, followed by the overthrow of the ancient religious system, the Kapu, and the arrival of the first western missionaries in 1820; and

(6) the trail—

(A) was used throughout the 19th and 20th centuries and continues in use today; and

(B) contains a variety of significant cultural and natural resources.

SEC. 3. AUTHORIZATION AND ADMINISTRATION.

Section 5(a) of the National Trails System Act (16 U.S.C. 1244(a)) is amended—

(1) by designating the paragraphs relating to the California National Historic Trail, the Pony Express National Historic Trail, and the Selma to Montgomery National Historic Trail as paragraphs (18), (19), and (20), respectively; and

(2) by adding at the end the following:

“(21) ALA KAHAKAI NATIONAL HISTORIC TRAIL.—

“(A) IN GENERAL.—The Ala Kahakai National Historic Trail (the Trail by the Sea), a 175 mile long trail extending from ‘Upolu Point on the north tip of Hawaii Island down the west coast of the Island around Ka Lae to the east boundary of Hawaii Volcanoes National Park at the ancient shoreline temple known as ‘Waha’ula’, as generally depicted on the map entitled ‘Ala Kahakai Trail’, contained in the report prepared pursuant to subsection (b) entitled ‘Ala Kahakai National Trail Study and Environmental Impact Statement’, dated January 1998.

“(B) MAP.—A map generally depicting the trail shall be on file and available for public inspection in the Office of the National Park Service, Department of the Interior.

“(C) ADMINISTRATION.—The trail shall be administered by the Secretary of the Interior.

“(D) LAND ACQUISITION.—No land or interest in land outside the exterior boundaries of any federally administered area may be acquired by the United States for the trail except with the consent of the owner of the land or interest in land.

“(E) PUBLIC PARTICIPATION; CONSULTATION.—The Secretary of the Interior shall—

“(i) encourage communities and owners of land along the trail, native Hawaiians, and volunteer trail groups to participate in the planning, development, and maintenance of the trail; and

“(ii) consult with affected Federal, State, and local agencies, native Hawaiian groups, and landowners in the administration of the trail.”.

Approved November 13, 2000.

LEGISLATIVE HISTORY—S. 700:

SENATE REPORTS: No. 106-65 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD:

Vol. 145 (1999): July 1, considered and passed Senate.

Vol. 146 (2000): Oct. 24, considered and passed House.

○

Appendix B: The National Trails System Act (Selected Sections)

(P.L. 90-543, as amended through P.L. 107-325, December 4, 2002)
(also found in *United States Code*, Volume 16, Sections 1241-1251)

AN ACT

To establish a national trails system, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION I. This Act may be cited as the "National Trails System Act".

STATEMENT OF POLICY

SEC. 2. [16USC1241]

(a) In order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation, trails should be established (i) primarily, near the urban areas of the Nation, and (ii) secondarily, within scenic areas and along historic travel routes of the Nation which are often more remotely located.

(b) The purpose of this Act is to provide the means for attaining these objectives by instituting a national system of recreation, scenic and historic trails, by designating the Appalachian Trail and the Pacific Crest Trail as the initial components of that system, and by prescribing the methods by which, and standards according to which, additional components may be added to the system.

(c) The Congress recognizes the valuable contributions that volunteers and private, nonprofit trail groups have made to the development and maintenance of the Nation's trails. In recognition of these contributions, it is further the purpose of this Act to encourage and assist volunteer citizen involvement in the planning, development, maintenance, and management, where appropriate, of trails.

NATIONAL TRAILS SYSTEM

SEC. 3. [16USC1242]

(a) The national system of trails shall be composed of the following:

(1) National recreation trails, established as provided in section 4 of this Act, which will provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.

(2) National scenic trails, established as provided in section 5 of this Act, which will be extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass. National scenic trails may be located so as to represent desert, marsh, grassland, mountain, canyon, river, forest, and other areas, as well as landforms which exhibit significant characteristics of the physiographic regions of the Nation.

(3) National historic trails, established as provided in section 5 of this Act, which will be extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the national historic trail criteria established in this Act are included as Federal protection components of a national historic trail. The appropriate Secretary may certify other lands as protected segments of an historic trail upon application from State or local governmental agencies or private interests involved if such segments meet the national historic trail criteria established in this Act and such criteria

supplementary thereto as the appropriate Secretary may prescribe, and are administered by such agencies or interests without expense to the United States.

(4) Connecting or side trails, established as provided in section 6 of this Act, which will provide additional points of public access to national recreation, national scenic or national historic trails or which will provide connections between such trails.

The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker for the national trails system.

(b) For purposes of this section, the term 'extended trails' means trails or trail segments which total at least one hundred miles in length, except that historic trails of less than one hundred miles may be designated as extended trails. While it is desirable that extended trails be continuous, studies of such trails may conclude that it is feasible to propose one or more trail segments which, in the aggregate, constitute at least one hundred miles in length.

NATIONAL RECREATION TRAILS

SEC. 4. [16USC1243]

(a) The Secretary of the Interior, or the Secretary of Agriculture where lands administered by him are involved, may establish and designate national recreation trails, with the consent of the Federal agency, State, or political subdivision having jurisdiction over the lands involved, upon finding that--

- (1) such trails are reasonably accessible to urban areas, and, or
- (2) such trails meet the criteria established in this Act and such supplementary criteria as he may prescribe.

(b) As provided in this section, trails within park, forest, and other recreation areas administered by the Secretary of the Interior or the Secretary of Agriculture or in other federally administered areas may be established and designated as "National Recreation Trails" by the appropriate Secretary and, when no Federal land acquisition is involved --

- (1) trails in or reasonably accessible to urban areas may be designated as "National Recreation Trails" by the appropriate Secretary with the consent of the States, their political subdivisions, or other appropriate administering agencies;
- (2) trails within park, forest, and other recreation areas owned or administered by States may be designated as "National Recreation Trails" by the appropriate Secretary with the consent of the State; and
- (3) trails on privately owned lands may be designated 'National Recreation Trails' by the appropriate Secretary with the written consent of the owner of the property involved.

NATIONAL SCENIC AND NATIONAL HISTORIC TRAILS

SEC. 5. [16USC1244]

(a) National scenic and national historic trails shall be authorized and designated only by Act of Congress. There are hereby established the following National Scenic and National Historic Trails: *[Trail descriptions are omitted except for the Ala Kahakai NHT.]*

- (1) The Appalachian National Scenic Trail,
- (2) The Pacific Crest National Scenic Trail
- (3) The Oregon National Historic Trail,
- (4) The Mormon Pioneer National Historic Trail
- (5) The Continental Divide National Scenic Trail,
- (6) The Lewis and Clark National Historic Trail,
- (7) The Iditarod National Historic Trail,
- (8) The North Country National Scenic Trail
- (9) The Overmountain Victory National Historic Trail,
- (10) The Ice Age National Scenic Trail
- (11) The Potomac Heritage National Scenic Trail,
- (12) The Natchez Trace National Scenic Trail,
- (13) The Florida National Scenic Trail,
- (14) The Nez Perce National Historic Trail
- (15) The Santa Fe National Historic Trail,
- (16) The Trail of Tears National Historic Trail,
- (17) The Juan Bautista de Anza National Historic Trail
- (18) The California National Historic Trail
- (19) The Pony Express National Historic

- (20) The Selma to Montgomery National Historic Trail,
- (21) El Camino Real de tierra adentro
- (22) Ala Kahakai National Historic Trail

(A) IN GENERAL - The Ala Kahakai National Historic Trail (the Trail by the Sea), a 175 mile long trail extending from 'Upolu Point on the north tip of Hawaii Island down the west coast of the Island around Ka Lae to the east boundary of Hawaii Volcanoes National Park at the ancient shoreline temple known as 'Waha'ula,' as generally depicted on the map entitled 'Ala Kahakai Trail,' contained in the report prepared pursuant to subsection (b) entitled 'Ala Kahakai National Trail Study and Environmental Impact Statement,' dated January, 1998.

(B) MAP - A map generally depicting the trail shall be on file and available for public inspection in the Office of the National Park Service, Department of the Interior.

(C) ADMINISTRATION - The trail shall be administered by the Secretary of the Interior.

(D) LAND ACQUISITION - No land or interest in land outside the exterior boundaries of any federally administered area may be acquired by the United States for the trail except with the consent of the owner of the land or interest in land.

(E) PUBLIC PARTICIPATION; CONSULTATION - The Secretary of the Interior shall --

- (i) encourage communities and owners of land along the trail, native Hawaiians, and volunteer trail groups to participate in the planning, development, and maintenance of the trail; and

- (ii) consult with affected Federal, State, and local agencies, native Hawaiian groups, and landowners in the administration of the trail.

(23) Old Spanish National Historic Trail --

(b) The Secretary of the Interior, through the agency most likely to administer such trail, and the Secretary of Agriculture where lands administered by him are involved, shall make such additional studies as are herein or may hereafter be authorized by the Congress for the purpose of determining the feasibility and desirability of designating other trails as national scenic or national historic trails. Such studies shall be made in consultation with the heads of other Federal agencies administering lands through which such additional proposed trails would pass and in cooperation with interested interstate, State, and local governmental agencies, public and private organizations, and landowners and land users concerned. The feasibility of designating a trail shall be determined on the basis of an evaluation of whether or not it is physically possible to develop a trail along a route being studied, and whether the development of a trail would be financially feasible. The studies listed in subsection (c) of this section shall be completed and submitted to the Congress, with recommendations as to the suitability of trail designation, not later than three complete fiscal years from the date of enactment of their addition to this subsection, or from the date of enactment of this sentence, whichever is later. Such studies, when submitted, shall be printed as a House or Senate document, and shall include, but not be limited to:

- (1) the proposed route of such trail (including maps and illustrations);
- (2) the areas adjacent to such trails, to be utilized for scenic, historic, natural, cultural, or developmental purposes;
- (3) the characteristics which, in the judgment of the appropriate Secretary, make the proposed trail worthy of designation as a national scenic or national historic trail; and in the case of national historic trails the report shall include the recommendation of the Secretary of the Interior's National Park System Advisory Board as to the national historic significance based on the criteria developed under the Historic Sites Act of 1935 (40 Stat. 666; 16 U.S.C. 461);
- (4) the current status of land ownership and current and potential use along the designated route;
- (5) the estimated cost of acquisition of lands or interest in lands, if any;
- (6) the plans for developing and maintaining the trail and the cost thereof;
- (7) the proposed Federal administering agency (which, in the case of a national scenic trail wholly or substantially within a national forest, shall be the Department of Agriculture);
- (8) the extent to which a State or its political subdivisions and public and private organizations might reasonably be expected to participate in acquiring the necessary lands and in the administration thereof;
- (9) the relative uses of the lands involved, including: the number of anticipated visitor-days for the entire length

of, as well as for segments of, such trail; the number of months which such trail, or segments thereof, will be open for recreation purposes; the economic and social benefits which might accrue from alternate land uses; and the estimated man-years of civilian employment and expenditures expected for the purposes of maintenance, supervision, and regulation of such trail;

(10) the anticipated impact of public outdoor recreation use on the preservation of a proposed national historic trail and its related historic and archeological features and settings, including the measures proposed to ensure evaluation and preservation of the values that contribute to their national historic significance; and

(11) To qualify for designation as a national historic trail, a trail must meet all three of the following criteria:

(A) It must be a trail or route established by historic use and must be historically significant as a result of that use. The route need not currently exist as a discernible trail to qualify, but its location must be sufficiently known to permit evaluation of public recreation and historical interest potential. A designated trail should generally accurately follow the historic route, but may deviate somewhat on occasion of necessity to avoid difficult routing through subsequent development, or to provide some route variations offering a more pleasurable recreational experience. Such deviations shall be so noted on site. Trail segments no longer possible to travel by trail due to subsequent development as motorized transportation routes may be designated and marked onsite as segments which link to the historic trail.

(B) It must be of national significance with respect to any of several broad facets of American history, such as trade and commerce, exploration, migration and settlement, or military campaigns. To qualify as nationally significant, historic use of the trail must have had a far reaching effect on broad patterns of American culture. Trails significant in the history of native Americans may be included.

(C) It must have significant potential for public recreational use or historical interest based on historic interpretation and appreciation. The potential for such use is generally greater along roadless segments developed as historic trails and at historic sites associated with the trail. The presence of recreation potential not related to historic appreciation is not sufficient justification for designation under this category.

(c) The following routes shall be studied in accordance with the objectives outlined in subsection (b) of this section.

[Names of 34 trails are omitted.]

(35) Ala Kahakai Trail in the State of Hawaii, an ancient Hawaiian trail on the island of Hawaii extending from the northern tip of the Island of Hawaii approximately 175 miles along the western and southern coasts to the northern boundary of Hawaii Volcanoes National Park.

[Names of six trails are omitted.]

(d) The Secretary charged with the administration of each respective trail shall, within one year of the date of the addition of any national scenic or national historic trail to the system, and within sixty days of the enactment of this sentence for the Appalachian and Pacific Crest National Scenic Trails, establish an advisory council for each such trail, each of which councils shall expire ten years from the date of its establishment, except that the Advisory Council established for the Iditarod Historic Trail shall expire twenty years from the date of its establishment. If the appropriate Secretary is unable to establish such an advisory council because of the lack of adequate public interest, the Secretary shall so advise the appropriate committees of the Congress. The appropriate Secretary shall consult with such council from time to time with respect to matters relating to the trail, including the selection of rights-of-way, standards for the erection and maintenance of markers along the trail, and the administration of the trail. The members of each advisory council, which shall not exceed thirty-five in number, shall serve for a term of two years and without compensation as such, but the Secretary may pay, upon vouchers signed by the chairman of the council, the expenses reasonably incurred by the council and its members in carrying out their responsibilities under this section. Members of each council shall be appointed by the appropriate Secretary as follows:

(1) the head of each Federal department or independent agency administering lands through which the trail route passes, or his designee;

(2) a member appointed to represent each State through which the trail passes, and such appointments shall be made from recommendations of the Governors of such States;

(3) one or more members appointed to represent private organizations, including corporate and individual landowners and land users, which in the opinion of the Secretary, have an established and recognized interest in the trail, and such appointments shall be made from recommendations of the heads of such organizations:

Provided, That the Appalachian Trail Conference shall be represented by a sufficient number of persons to represent the various sections of the country through which the Appalachian Trail passes; and

(4) the Secretary shall designate one member to be chairman and shall fill vacancies in the same manner as the original appointment.

(e) Within two complete fiscal years of the date of enactment of legislation designating a national scenic trail, except for the Continental Divide National Scenic Trail and the North Country National Scenic Trail, as part of the system, and within two complete fiscal years of the date of enactment of this subsection for the Pacific Crest and Appalachian Trails, the responsible Secretary shall, after full consultation with affected Federal land managing agencies, the Governors of the affected States, the relevant advisory council established pursuant to section 5(d), and the Appalachian Trail Conference in the case of the Appalachian Trail, submit to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, a comprehensive plan for the acquisition, management, development, and use of the trail, including but not limited to, the following items:

- (1) specific objectives and practices to be observed in the management of the trail, including the identification of all significant natural, historical, and cultural resources to be preserved (along with high potential historic sites and high potential route segments in the case of national historic trails), details of any anticipated cooperative agreements to be consummated with other entities, and an identified carrying capacity of the trail and a plan for its implementation;
- (2) an acquisition or protection plan, by fiscal year for all lands to be acquired by fee title or lesser interest, along with detailed explanation of anticipated necessary cooperative agreements for any lands not to be acquired; and
- (3) general and site-specific development plans including anticipated costs.

(f) Within two complete fiscal years of the date of enactment of legislation designating a national historic trail or the Continental Divide National Scenic Trail or the North Country National Scenic Trail as part of the system, the responsible Secretary shall, after full consultation with affected Federal land managing agencies, the Governors of the affected States, and the relevant Advisory Council established pursuant to section 5(d) of this Act, submit to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, a comprehensive plan for the management, and use of the trail, including but not limited to, the following items:

- (1) specific objectives and practices to be observed in the management of the trail, including the identification of all significant natural, historical, and cultural resources to be preserved, details of any anticipated cooperative agreements to be consummated with State and local government agencies or private interests, and for national scenic or national historic trails an identified carrying capacity of the trail and a plan for its implementation;
- (2) the process to be followed by the appropriate Secretary to implement the marking requirements established in section 7(c) of this Act;
- (3) a protection plan for any high potential historic sites or high potential route segments; and
- (4) general and site-specific development plans, including anticipated costs.

CONNECTING AND SIDE TRAILS

SEC. 6. [16USC1245] Connecting or side trails within park, forest, and other recreation areas administered by the Secretary of the Interior or Secretary of Agriculture may be established, designated, and marked by the appropriate Secretary as components of a national recreation, national scenic or national historic trail. When no Federal land acquisition is involved, connecting or side trails may be located across lands administered by interstate, State, or local governmental agencies with their consent, or, where the appropriate Secretary deems necessary or desirable, on privately owned lands with the consent of the landowners. Applications for approval and designation of connecting and side trails on non-Federal lands shall be submitted to the appropriate Secretary.

ADMINISTRATION AND DEVELOPMENT

SEC. 7. [16USC1246]

(a)

(1)

(A) The Secretary charged with the overall administration of a trail pursuant to section 5(a) shall, in administering and managing the trail, consult with the heads of all other affected State and Federal agencies. Nothing contained in this Act shall be deemed to transfer among Federal agencies any management responsibilities established under any other law for federally administered lands which are components of the National Trails System. Any transfer of management responsibilities may be carried out between the Secretary of the Interior and the Secretary of Agriculture only as provided under subparagraph (B).

(B) The Secretary charged with the overall administration of any trail pursuant to section 5(a) may transfer management of any specified trail segment of such trail to the other appropriate Secretary pursuant to a joint memorandum of agreement containing such terms and conditions as the Secretaries consider most appropriate to accomplish the purposes of this Act. During any period in

which management responsibilities for any trail segment are transferred under such an agreement, the management of any such segment shall be subject to the laws, rules, and regulations of the Secretary provided with the management authority under the agreement except to such extent as the agreement may otherwise expressly provide.

(2) Pursuant to section 5(a), the appropriate Secretary shall select the rights-of-way for national scenic and national historic trails and shall publish notice thereof of the availability of appropriate maps or descriptions in the Federal Register; Provided, That in selecting the rights-of-way full consideration shall be given to minimizing the adverse effects upon the adjacent landowner or user and his operation. Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for the specific area in order to insure continued maximum benefits from the land. The location and width of such rights-of-way across Federal lands under the jurisdiction of another Federal agency shall be by agreement between the head of that agency and the appropriate Secretary. In selecting rights-of-way for trail purposes, the Secretary shall obtain the advice and assistance of the States, local governments, private organizations, and landowners and land users concerned.

(b) After publication of notice of the availability of appropriate maps or descriptions in the Federal Register, the Secretary charged with the administration of a national scenic or national historic trail may relocate segments of a national scenic or national historic trail right-of-way with the concurrence of the head of the Federal agency having jurisdiction over the lands involved, upon a determination that: (i) Such a relocation is necessary to preserve the purposes for which the trail was established, or (ii) the relocation is necessary to promote a sound land management program in accordance with established multiple-use principles: Provided, That a substantial relocation of the rights-of-way for such trail shall be by Act of Congress.

(c) National scenic or national historic trails may contain campsites, shelters, and related-public-use facilities. Other uses along the trail, which will not substantially interfere with the nature and purposes of the trail, may be permitted by the Secretary charged with the administration of the trail. Reasonable efforts shall be made to provide sufficient access opportunities to such trails and, to the extent practicable, efforts be made to avoid activities incompatible with the purposes for which such trails were established. The use of motorized vehicles by the general public along any national scenic trail shall be prohibited and nothing in this Act shall be construed as authorizing the use of motorized vehicles within the natural and historical areas of the national park system, the national wildlife refuge system, the national wilderness preservation system where they are presently prohibited or on other Federal lands where trails are designated as being closed to such use by the appropriate Secretary: Provided, That the Secretary charged with the administration of such trail shall establish regulations which shall authorize the use of motorized vehicles when, in his judgment, such vehicles are necessary to meet emergencies or to enable adjacent landowners or land users to have reasonable access to their lands or timber rights: Provided further, That private lands included in the national recreation, national scenic, or national historic trails by cooperative agreement of a landowner shall not preclude such owner from using motorized vehicles on or across such trails or adjacent lands from time to time in accordance with regulations to be established by the appropriate Secretary. Where a national historic trail follows existing public roads, developed rights-of-way or waterways, and similar features of man's nonhistorically related development, approximating the original location of a historic route, such segments may be marked to facilitate retracement of the historic route, and where a national historic trail parallels an existing public road, such road may be marked to commemorate the historic route. Other uses along the historic trails and the Continental Divide National Scenic Trail, which will not substantially interfere with the nature and purposes of the trail, and which, at the time of designation, are allowed by administrative regulations, including the use of motorized vehicles, shall be permitted by the Secretary charged with administration of the trail. The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker, including thereon an appropriate and distinctive symbol for each national recreation, national scenic, and national historic trail. Where the trails cross lands administered by Federal agencies such markers shall be erected at appropriate points along the trails and maintained by the Federal agency administering the trail in accordance with standards established by the appropriate Secretary and where the trails cross non-Federal lands, in accordance with written cooperative agreements, the appropriate Secretary shall provide such uniform markers to cooperating agencies and shall require such agencies to erect and maintain them in accordance with the standards established. The appropriate Secretary may also provide for trail interpretation sites, which shall be located at historic sites along the route of any national scenic or national historic trail, in order to present information to the public about the trail, at the lowest possible cost, with emphasis on the portion of the trail passing through the State in which the site is located. Wherever possible, the sites shall be maintained by a State agency under a cooperative agreement between the appropriate Secretary and the State agency.

(d) Within the exterior boundaries of areas under their administration that are included in the right-of-way selected for a national recreation, national scenic, or national historic trail, the heads of Federal agencies may use lands for trail

purposes and may acquire lands or interests in lands by written cooperative agreement, donation, purchase with donated or appropriated funds or exchange.

(e) Where the lands included in a national scenic or national historic trail right-of-way are outside of the exterior boundaries of federally administered areas, the Secretary charged with the administration of such trail shall encourage the States or local governments involved (1) to enter into written cooperative agreements with landowners, private organizations, and individuals to provide the necessary trail right-of-way, or (2) to acquire such lands or interests therein to be utilized as segments of the national scenic or national historic trail: Provided, That if the State or local governments fail to enter into such written cooperative agreements or to acquire such lands or interests therein after notice of the selection of the right-of-way is published, the appropriate Secretary, may (i) enter into such agreements with landowners, States, local governments, private organizations, and individuals for the use of lands for trail purposes, or (ii) acquire private lands or interests therein by donation, purchase with donated or appropriated funds or exchange in accordance with the provisions of subsection (f) of this section: Provided further, That the appropriate Secretary may acquire lands or interests therein from local governments or governmental corporations with the consent of such entities. The lands involved in such rights-of-way should be acquired in fee, if other methods of public control are not sufficient to assure their use for the purpose for which they are acquired: Provided, That if the Secretary charged with the administration of such trail permanently relocates the right-of-way and disposes of all title or interest in the land, the original owner, or his heirs or assigns, shall be offered, by notice given at the former owner's last known address, the right of first refusal at the fair market price.

(f)

(1) The Secretary of the Interior, in the exercise of his exchange authority, may accept title to any non-Federal property within the right-of-way and in exchange therefor he may convey to the grantor of such property any federally owned property under his jurisdiction which is located in the State wherein such property is located and which he classifies as suitable for exchange or other disposal. The values of the properties so exchanged either shall be approximately equal, or if they are not approximately equal the values shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require. The Secretary of Agriculture, in the exercise of his exchange authority, may utilize authorities and procedures available to him in connection with exchanges of national forest lands.

(2) In acquiring lands or interests therein for a National Scenic or Historic Trail, the appropriate Secretary may, with consent of a landowner, acquire whole tracts notwithstanding that parts of such tracts may lie outside the area of trail acquisition. In furtherance of the purposes of this act, lands so acquired outside the area of trail acquisition may be exchanged for any non-Federal lands or interests therein within the trail right-of-way, or disposed of in accordance with such procedures or regulations as the appropriate Secretary shall prescribe, including: (i) provisions for conveyance of such acquired lands or interests therein at not less than fair market value to the highest bidder, and (ii) provisions for allowing the last owners of record a right to purchase said acquired lands or interests therein upon payment or agreement to pay an amount equal to the highest bid price. For lands designated for exchange or disposal, the appropriate Secretary may convey these lands with any reservations or covenants deemed desirable to further the purposes of this Act. The proceeds from any disposal shall be credited to the appropriation bearing the costs of land acquisition for the affected trail.

(g) The appropriate Secretary may utilize condemnation proceedings without the consent of the owner to acquire private lands or interests, therein pursuant to this section only in cases where, in his judgment, all reasonable efforts to acquire such lands or interest therein by negotiation have failed, and in such cases he shall acquire only such title as, in his judgment, is reasonably necessary to provide passage across such lands: Provided, That condemnation proceedings may not be utilized to acquire fee title or lesser interests to more than an average of one hundred and twenty-five acres per mile. Money appropriated for Federal purposes from the land and water conservation fund shall, without prejudice to appropriations from other sources, be available to Federal departments for the acquisition of lands or interests in lands for the purposes of this Act. For national historic trails, direct Federal acquisition for trail purposes shall be limited to those areas indicated by the study report or by the comprehensive plan as high potential route segments or high potential historic sites. Except for designated protected components of the trail, no land or site located along a designated national historic trail or along the Continental Divide National Scenic Trail shall be subject to the provisions of section 4(f) of the Department of Transportation Act (49 U.S.C. 1653(f)) unless such land or site is deemed to be of historical significance under appropriate historical site criteria such as those for the National Register of Historic Places.

(h)

(1) The Secretary charged with the administration of a national recreation, national scenic, or national historic trail shall provide for the development and maintenance of such trails within federally administered areas,

and shall cooperate with and encourage the States to operate, develop, and maintain portions of such trails which are located outside the boundaries of federally administered areas. When deemed to be in the public interest, such Secretary may enter written cooperative agreements with the States or their political subdivisions, landowners, private organizations, or individuals to operate, develop, and maintain any portion of such a trail either within or outside a federally administered area. Such agreements may include provisions for limited financial assistance to encourage participation in the acquisition, protection, operation, development, or maintenance of such trails, provisions providing volunteer in the park or volunteer in the forest status (in accordance with the Volunteers in the Parks Act of 1969 and the Volunteers in the Forests Act of 1972) to individuals, private organizations, or landowners participating in such activities, or provisions of both types. The appropriate Secretary shall also initiate consultations with affected States and their political subdivisions to encourage --

(A) the development and implementation by such entities of appropriate measures to protect private landowners from trespass resulting from trail use and from unreasonable personal liability and property damage caused by trail use, and

(B) the development and implementation by such entities of provisions for land practices compatible with the purposes of this Act, for property within or adjacent to trail rights-of-way. After consulting with States and their political subdivisions under the preceding sentence, the Secretary may provide assistance to such entities under appropriate cooperative agreements in the manner provided by this subsection.

(2) Whenever the Secretary of the Interior makes any conveyance of land under any of the public land laws, he may reserve a right-of-way for trails to the extent he deems necessary to carry out the purposes of this Act.

(i) The appropriate Secretary, with the concurrence of the heads of any other Federal agencies administering lands through which a national recreation, national scenic, or national historic trail passes, and after consultation with the States, local governments, and organizations concerned, may issue regulations, which may be revised from time to time, governing the use, protection, management, development, and administration of trails of the national trails system. In order to maintain good conduct on and along the trails located within federally administered areas and to provide for the proper government and protection of such trails, the Secretary of the Interior and the Secretary of Agriculture shall prescribe and publish such uniform regulations as they deem necessary and any person who violates such regulations shall be guilty of a misdemeanor, and may be punished by a fine of not more \$500 or by imprisonment not exceeding six months, or by both such fine and imprisonment. The Secretary responsible for the administration of any segment of any component of the National Trails System (as determined in a manner consistent with subsection (a)(1) of this section) may also utilize authorities related to units of the national park system or the national forest system, as the case may be, in carrying out his administrative responsibilities for such component.

(j) Potential trail uses allowed on designated components of the national trails system may include, but are not limited to, the following: bicycling, cross-country skiing, day hiking, equestrian activities, jogging or similar fitness activities, trail biking, overnight and long-distance backpacking, snowmobiling, and surface water and underwater activities. Vehicles which may be permitted on certain trails may include, but need not be limited to, motorcycles, bicycles, four-wheel drive or all-terrain off-road vehicles. In addition, trail access for handicapped individuals may be provided. The provisions of this subsection shall not supersede any other provisions of this Act or other Federal laws, or any State or local laws.

(k) For the conservation purpose of preserving or enhancing the recreational, scenic, natural, or historical values of components of the national trails system, and environs thereof as determined by the appropriate Secretary, landowners are authorized to donate or otherwise convey qualified real property interests to qualified organizations consistent with section 170(h)(3) of the Internal Revenue Code of 1954, including, but not limited to, right-of-way, open space, scenic, or conservation easements, without regard to any limitation on the nature of the estate or interest otherwise transferable within the jurisdiction where the land is located. The conveyance of any such interest in land in accordance with this subsection shall be deemed to further a Federal conservation policy and yield a significant public benefit for purposes of section 6 of Public Law 96-541.

STATE AND METROPOLITAN AREA TRAILS

SEC. 8. [16USC1247] (a) The Secretary of the Interior is directed to encourage States to consider, in their comprehensive statewide outdoor recreation plans and proposals for financial assistance for State and local projects submitted pursuant to the Land and Water Conservation Fund Act, needs and opportunities for establishing park, forest, and other recreation and historic trails on lands owned or administered by States, and recreation and historic trails on lands in or near urban areas. The Secretary is also directed to encourage States to consider, in their comprehensive statewide historic

preservation plans and proposals for financial assistance for State, local, and private projects submitted pursuant to the Act of October 15, 1966 (80 Stat. 915), as amended, needs and opportunities for establishing historic trails. He is further directed in accordance with the authority contained in the Act of May 28, 1963 (77 Stat. 49), to encourage States, political subdivisions, and private interests, including nonprofit organizations, to establish such trails.

(b) The Secretary of Housing and Urban Development is directed, in administering the program of comprehensive urban planning and assistance under section 701 of the Housing Act of 1954, to encourage the planning of recreation trails in connection with the recreation and transportation planning for metropolitan and other urban areas. He is further directed, in administering the urban open space program under title VII of the Housing Act of 1961, to encourage such recreation trails.

(c) The Secretary of Agriculture is directed, in accordance with authority vested in him, to encourage States and local agencies and private interests to establish such trails.

(d) The Secretary of Transportation, the Chairman of the Interstate Commerce Commission, and the Secretary of the Interior, in administering the Railroad Revitalization and Regulatory Reform Act of 1976, shall encourage State and local agencies and private interests to establish appropriate trails using the provisions of such programs. Consistent with the purposes of that Act, and in furtherance of the national policy to preserve established railroad rights-of-way for future reactivation of rail service, to protect rail transportation corridors, and to encourage energy efficient transportation use, in the case of interim use of any established railroad rights-of-way pursuant to donation, transfer, lease, sale, or otherwise in a manner consistent with the National Trails System Act, if such interim use is subject to restoration or reconstruction for railroad purposes, such interim use shall not be treated, for purposes of any law or rule of law, as an abandonment of the use of such rights-of-way for railroad purposes. If a State, political subdivision, or qualified private organization is prepared to assume full responsibility for management of such rights-of-way and for any legal liability arising out of such transfer or use, and for the payment of any and all taxes that may be levied or assessed against such rights-of-way, then the Commission shall impose such terms and conditions as a requirement of any transfer or conveyance for interim use in a manner consistent with this Act, and shall not permit abandonment or discontinuance inconsistent or disruptive of such use.

(e) Such trails may be designated and suitably marked as parts of the nationwide system of trails by the States, their political subdivisions, or other appropriate administering agencies with the approval of the Secretary of the Interior.

RIGHTS-OF-WAY AND OTHER PROPERTIES

SEC. 9. [16USC1248] (a) The Secretary of the Interior or the Secretary of Agriculture as the case may be, may grant easements and rights-of-way upon, over, under, across, or along any component of the national trails system in accordance with the laws applicable to the national park system and the national forest system, respectively: Provided, That any conditions contained in such easements and rights-of-way shall be related to the policy and purposes of this Act.

(b) The Department of Defense, the Department of Transportation, the Interstate Commerce Commission, the Federal Communications Commission, the Federal Power Commission, and other Federal agencies having jurisdiction or control over or information concerning the use, abandonment, or disposition of roadways, utility rights-of-way, or other properties which may be suitable for the purpose of improving or expanding the national trails system shall cooperate with the Secretary of the Interior and the Secretary of Agriculture in order to assure, to the extent practicable, that any such properties having values suitable for trail purposes may be made available for such use.

(c) Commencing upon the date of enactment of this subsection, any and all right, title, interest, and estate of the United States in all rights-of-way of the type described in the Act of March 8, 1922 (43 U.S.C. 912), shall remain in the United States upon the abandonment or forfeiture of such rights-of-way, or portions thereof, except to the extent that any such right-of-way, or portion thereof, is embraced within a public highway no later than one year after a determination of abandonment or forfeiture, as provided under such Act.

(d)

(1) All rights-of-way, or portions thereof, retained by the United States pursuant to subsection (c) which are located within the boundaries of a conservation system unit or a National Forest shall be added to and incorporated within such unit or National Forest and managed in accordance with applicable provisions of law, including this Act.

(2) All such retained rights-of-way, or portions thereof, which are located outside the boundaries of a conservation system unit or a National Forest but adjacent to or contiguous with any portion of the public lands

shall be managed pursuant to the Federal Land Policy and Management Act of 1976 and other applicable law, including this section.

(3) All such retained rights-of-way, or portions thereof, which are located outside the boundaries of a conservation system unit or National Forest which the Secretary of the Interior determines suitable for use as a public recreational trail or other recreational purposes shall be managed by the Secretary for such uses, as well as for such other uses as the Secretary determines to be appropriate pursuant to applicable laws, as long as such uses do not preclude trail use.

(e)

(l) The Secretary of the Interior is authorized where appropriate to release and quitclaim to a unit of government or to another entity meeting the requirements of this subsection any and all right, title, and interest in the surface estate of any portion of any right-of-way to the extent any such right, title, and interest was retained by the United States pursuant to subsection (c), if such portion is not located within the boundaries of any conservation system unit or National Forest. Such release and quitclaim shall be made only in response to an application therefor by a unit of State or local government or another entity which the Secretary of the Interior determines to be legally and financially qualified to manage the relevant portion for public recreational purposes. Upon receipt of such an application, the Secretary shall publish a notice concerning such application in a newspaper of general circulation in the area where the relevant portion is located. Such release and quitclaim shall be on the following conditions:

(A) If such unit or entity attempts to sell, convey, or otherwise transfer such right, title, or interest or attempts to permit the use of any part of such portion for any purpose incompatible with its use for public recreation, then any and all right, title, and interest released and quitclaimed by the Secretary pursuant to this subsection shall revert to the United States.

(B) Such unit or entity shall assume full responsibility and hold the United States harmless for any legal liability which might arise with respect to the transfer, possession, use, release, or quitclaim of such right-of-way.

(C) Notwithstanding any other provision of law, the United States shall be under no duty to inspect such portion prior to such release and quitclaim, and shall incur no legal liability with respect to any hazard or any unsafe condition existing on such portion at the time of such release and quitclaim.

(2) The Secretary is authorized to sell any portion of a right-of-way retained by the United States pursuant to subsection (c) located outside the boundaries of a conservation system unit or National Forest if any such portion is --

(A) not adjacent to or contiguous with any portion of the public lands; or

(B) determined by the Secretary, pursuant to the disposal criteria established by section 203 of the Federal Land Policy and Management Act of 1976, to be suitable for sale. Prior to conducting any such sale, the Secretary shall take appropriate steps to afford a unit of State or local government or any other entity an opportunity to seek to obtain such portion pursuant to paragraph (l) of this subsection.

(3) All proceeds from sales of such retained rights of way shall be deposited into the Treasury of the United States and credited to the Land and Water Conservation Fund as provided in section 2 of the Land and Water Conservation Fund Act of 1965.

(4) The Secretary of the Interior shall annually report to the Congress the total proceeds from sales under paragraph (2) during the preceding fiscal year. Such report shall be included in the President's annual budget submitted to the Congress.

(f) As used in this section --

(1) The term "conservation system unit" has the same meaning given such term in the Alaska National Interest Lands Conservation Act (Public Law 96-487; 94 Stat. 2371 et seq.), except that such term shall also include units outside Alaska.

(2) The term “public lands” has the same meaning given such term in the Federal Land Policy and Management Act of 1976.

AUTHORIZATION OF APPROPRIATIONS

SEC. 10. [16USC1249] (a)

(1) There are hereby authorized to be appropriated for the acquisition of lands or interests in lands not more than \$5,000,000 for the Appalachian National Scenic Trail and not more than \$500,000 for the Pacific Crest National Scenic Trail. From the appropriations authorized for fiscal year 1979 and succeeding fiscal years pursuant to the Land and Water Conservation Fund Act (78 Stat. 897), as amended, not more than the following amounts may be expended for the acquisition of lands and interests in lands authorized to be acquired pursuant to the provisions of this Act: for the Appalachian National Scenic Trail, not to exceed \$30,000,000 for fiscal year 1979, \$30,000,000 for fiscal year 1980, and \$30,000,000 for fiscal year 1981, except that the difference between the foregoing amounts and the actual appropriations in any one fiscal year shall be available for appropriation in subsequent fiscal years.

(2) It is the express intent of the Congress that the Secretary should substantially complete the land acquisition program necessary to insure the protection of the Appalachian Trail within three complete fiscal years following the date of enactment of this sentence.

(b) For the purposes of Public Law 95-42 (91 Stat. 211), the lands and interests therein acquired pursuant to this section shall be deemed to qualify for funding under the provisions of section 1, clause 2, of said Act.

(c)

(1) There is hereby authorized to be appropriated such sums as may be necessary to implement the provisions of this Act relating to the trails designated by paragraphs 5(a)(3), (4), (5), (6), (7), (8), (9) and (10): Provided, That no such funds are authorized to be appropriated prior to October 1, 1978: And provided further, That notwithstanding any other provisions of this Act or any other provisions of law, no funds may be expended by Federal agencies for the acquisition of lands or interests in lands outside the exterior boundaries of existing Federal areas for the Continental Divide National Scenic Trail, the North Country National Scenic Trail, the Ice Age National Scenic Trail, the Oregon National Historic Trail, the Mormon Pioneer National Historic Trail, the Lewis and Clark National Historic Trail, and the Iditarod National Historic Trail, except that funds may be expended for the acquisition of lands or interests therein for the purpose of providing for one trail interpretation site, as described in section 7(c), along with such trail in each State crossed by the trail.

(2) Except as otherwise provided in this Act, there is authorized to be appropriated such sums as may be necessary to implement the provisions of this Act relating to the trails designated by section 5(a). Not more than \$500,000 may be appropriated for the purposes of acquisition of land and interests therein for the trail designated by section 5(a)(12) of this Act, and not more than \$2,000,000 may be appropriated for the purposes of the development of such trail. The administering agency for the trail shall encourage volunteer trail groups to participate in the development of the trail.

VOLUNTEER TRAILS ASSISTANCE

SEC. 11. [16USC1250] (a)

(1) In addition to the cooperative agreement and other authorities contained in this Act, the Secretary of the Interior, the Secretary of Agriculture, and the head of any Federal agency administering Federal lands, are authorized to encourage volunteers and volunteer organizations to plan, develop, maintain, and manage, where appropriate, trails throughout the Nation.

(2) Wherever appropriate in furtherance of the purposes of this Act, the Secretaries are authorized and encouraged to utilize the Volunteers in the Parks Act of 1969, the Volunteers in the Forests Act of 1972, and section 6 of the Land and Water Conservation Fund Act of 1965 (relating to the development of Statewide Comprehensive Outdoor Recreation Plans).

(b) Each Secretary or the head of any Federal land managing agency, may assist volunteers and volunteers organizations in planning, developing, maintaining, and managing trails. Volunteer work may include, but need not be limited to--

(1) planning, developing, maintaining, or managing (A) trails which are components of the national trails system, or (B) trails which, if so developed and maintained, could qualify for designation as components of the national trails system; or

(2) operating programs to organize and supervise volunteer trail building efforts with respect to the trails referred to in paragraph (1), conducting trail-related research projects, or providing education and training to volunteers on methods of trails planning, construction, and maintenance.

(c) The appropriate Secretary or the head of any Federal land managing agency may utilize and to make available Federal facilities, equipment, tools, and technical assistance to volunteers and volunteer organizations, subject to such limitations and restrictions as the appropriate Secretary or the head of any Federal land managing agency deems necessary or desirable.

DEFINITIONS

SEC. 12. [16USC1251] As used in this Act:

(1) The term “high potential historic sites” means those historic sites related to the route, or sites in close proximity thereto, which provide opportunity to interpret the historic significance of the trail during the period of its major use. Criteria for consideration as high potential sites include historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion.

(2) The term “high potential route segments” means those segments of a trail which would afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route.

(3) The term “State” means each of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Northern Mariana Islands, and any other territory or possession of the United States.

(4) The term “without expense to the United States” means that no funds may be expended by Federal agencies for the development of trail related facilities or for the acquisition of lands or interest in lands outside the exterior boundaries of Federal areas. For the purposes of the preceding sentence, amounts made available to any State or political subdivision under the Land and Water Conservation Fund Act of 1965 or any other provision of law shall not be treated as an expense to the United States.

Appendix C: Record of Decision

US Department of the Interior
National Park Service
Comprehensive Management Plan
Final Environmental Impact Statement
Ala Kahakai National Historic Trail
Hawaii County, Hawaii

RECORD OF DECISION

Introduction

The Department of the Interior, National Park service (NPS) has prepared this Record of Decision (ROD) on the *Comprehensive Management Plan (CMP) and Abbreviated Final Environmental Impact Statement (EIS)* for the Ala Kahakai National Historic Trail, Hawaii.

The National Park Service (NPS) administers the Ala Kahakai¹ National Historic Trail (NHT), added to the National Trails System by the U.S. Congress on November 13, 2000. The legislation authorizing the Ala Kahakai NHT identifies an approximately 175-mile portion of prehistoric *ala loa* (long trail) and other trails on or parallel to the seacoast extending from ‘Upolu Point on the north tip of Hawai‘i Island down the west coast of the island around South Point to the east boundary of Hawai‘i Volcanoes National Park. The Ala Kahakai National Historic Trail combines surviving elements of the ancient coastal *ala loa* with segments of later government trails (*alanui aupuni*), which developed on or parallel to the traditional routes, and more recent pathways and roads that create links between the historic segments.

The purposes of the Ala Kahakai NHT, derived from the legislative history, the *Ala Kahakai National Trail Study and Environmental Impact Statement (Feasibility Study January 1998)*, and the public CMP scoping process completed in 2004 are to

- preserve, protect, reestablish as necessary, and maintain a substantial portion of the ancient *ala loa* and associated resources and values, along with linking trails on or parallel to the shoreline of Hawai‘i Island, and
- provide for a high quality experience, enjoyment, and education — guided by Native Hawaiian protocol and etiquette — while protecting the trail’s natural and cultural heritage and respecting private and community interests.

It is important to note that federal ownership of the Ala Kahakai NHT is limited to the trail alignment within the four national parks it links: Pu‘ukoholā Heiau National Historic Site; Kaloko-Honokōhau National Historical Park (NHP); Pu‘uhonua o Hōnaunau NHP; and Hawai‘i Volcanoes National Park. Approximately 17% of the NHT is within the boundaries of these national parks. With trail authorization, only these trail segments became federally managed components of the NHT, in accordance with §3(a)3 of the National Trails System Act. Although administered by the NPS, the other 83% of the trail must be managed in cooperation with a variety of landowners, both public and private.

The National Trails System Act, as amended, requires the preparation of a comprehensive management plan (CMP) for each new trail in the system. The Ala Kahakai NHT CMP provides direction for natural and

¹ A term coined by a planner in 1973 from *ala* (path, trail) *kaha* (by the) *kai* (sea). *Kahakai* means beach, seashore.

cultural resource preservation, education, and trail user experience over the next 15-years. It considers the trail in its entirety. It identifies the necessity of community partnerships to protect trail resources and provide appropriate trail user services. As a partnership endeavor, the success of this plan is not solely determined by the NPS; rather its success rests with the will and perseverance of other local government agencies, communities, organizations, neighborhood associations, and individuals who have the capacity and desire to implement actions within this plan.

This ROD contains a description of the decision made, synopses of other alternatives considered, the basis for the decision, a description of the environmentally preferred alternative, a discussion of impairment of resources or values, a listing of key measures to minimize environmental harm, and an overview of public involvement in the decision-making process.

Decision (Selected Action)

The National Park Service will implement the preferred alternative (Alternative C: *Ahupua'a*² Trail System) as detailed in the *Abbreviated Final Comprehensive Management Plan and Environmental Impact Statement* issued in October 2008. The abbreviated format for the final was chosen because changes to the Draft CMP/EIS were minor and confined to factual corrections that clarify meaning but do not modify the environmental impact analysis.

Under the selected action, the Ala Kahakai NHT reflects the Hawaiian concept of trails as a network connecting places of importance to Native Hawaiian people. It consists of a linear shoreline or near shoreline trail, and on public lands, includes other ancient and historic trails lateral to the shoreline. It may be connected to *mauka-makai* (mountain to sea) trails within the Ala Kahakai NHT corridor that traditionally would have been part of the *ahupua'a* system. It validates the existence and importance of multiple trail alignments in traditional land use and stewardship in Hawai'i by using the authority of the National Trails System Act, as amended, for connecting and side trails³ (Section 6 [16USC 1245]). It reflects the public's vision, developed in the planning process, for the administration and management of the trail.

Actions and strategies to be applied within the 15-year planning period:

Administration, Management, and Partnerships

- Consider the potential for the state of Hawaii to convey to the NPS a less-than-fee management interest in trail segments that are state-owned under the Highways Act of 1892 within the Ala Kahakai NHT corridor.
- Encourage local communities of the *ahupua'a*, in cooperation with the NPS, to take responsibility for trail management using traditional Hawaiian principles of land management and stewardship. As feasible and if funding allows, the NPS will offer technical assistance and limited financial assistance to these management partners.
- Anticipate that the Ala Kahakai Trail Association and other organizations will function as partners with the NPS in community-based protection of cultural sites and landscapes.

² Traditional Hawaiian land divisions roughly running from the mountains or uplands to the sea. The Ala Kahakai NHT travels through over 600 *ahupua'a*.

³ Connecting or side trails may be established, designated and marked as components of a national historic trail on federal lands by the Secretary of the Interior. They may also be located across lands administered by state or local government agencies with their consent or on privately owned lands with the consent of landowners. Applications for designation of such trails are submitted to the Secretary of the Interior and do not have to be approved by Congress. (See Appendix B, National Trails System Act, § 6.)

Agreements

- Use management agreements for high potential sites and trail segments⁴, authorized by Section 7(h) (1) of the National Trails System Act, as the chief means of ensuring trail and resource protection and authenticity of interpretation on nonfederal land.

Hawaiian Land Management Values

- Use Hawaiian land management concepts to provide a basis for an effective cultural, community-based trail management approach for the Ala Kahakai NHT.

Community Planning and Management Teams

- Develop management agreements for each trail segment with community management teams comprised of *kūpuna*, *kama'aina*, adjacent landowners, volunteer trail groups, community-based organizations, representatives of involved government agencies, other stakeholders, and interdisciplinary resource specialists (a requirement).

Organizational Capacity Building

- Offer strategic planning, organizational capacity building services, resource management and other training in order to assure and sustain successful implementation of trail management agreements.

Cultural Resource Protection Strategies

In general,

- Treat trail resources holistically as part of a landscape in which culture and nature are one.
- Integrate cultural resource management with natural resource management, education, and visitor experience as a primary approach of park management.
- Extend protection of fundamental resources and values to multiple trail alignments as appropriate.
- Base resource inventories on landscapes or ecosystems on public lands to support cultural conservation.

On federal lands, such as the four national parks,

- Coordinate with the compliance officers of each of the four national parks for any future Ala Kahakai NHT action proposed within the park.
- Work with park staffs to help complete inventories and assessments in order to understand the character and significance of cultural resources along the trail and the needs for protection, stewardship, and monitoring.
- Encourage the parks to embrace the Ala Kahakai NHT and to seek funding for resource inventories related to the trail.

On nonfederal lands added to the Ala Kahakai NHT through agreements with land owners, several protection strategies may be used as suggested below:

- Develop a memorandum of understanding with the SHPD to encourage consistency in the preservation, development, management and marking of the trail through various jurisdictions.
- Prepare site and segment-specific management plans to address natural and cultural resources in

⁴ As defined by the Act, high potential historic sites mean “those historic sites related to the route, or sites in close proximity thereto, which provide opportunity to interpret the historic significance of the trail during the period of its major use. Criteria for consideration as high potential sites include historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion.”

High potential route segments “means those segments of a trail which would afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route.”

compliance with applicable state and federal laws.

- Conduct inventory and assessment to develop a consistent collection of natural and cultural information and trail data in a trail Geographic Information System (GIS).
- Develop a monitoring protocol for the entire trail.
- Conduct monitoring of sensitive cultural resource areas at the lowest feasible cost through volunteer and other programs.
- Phase opening of trail segments to ensure no segment of the trail will be promoted for public use until significant cultural resources and values within that segment are documented, sensitive areas determined, and a segment-specific management plan in place.
- Route the trail strategically, as feasible, to avoid intrusion by trail users into sensitive natural and cultural areas, with special consideration for burial, sacred sites, and caves.
- Protect private lands through partnership or cooperative agreements, conservation easements, and land donations or fee simple purchases from willing sellers where lands can be efficiently managed.
- Provide flexible stewardship allowing for limited visitation through guardianship or curator programs.
- Employ education to inform the public of the need for preservation of cultural resources.

Natural Resource Protection Strategies

- Provide sufficient information in site-specific biological inventories and assessments developed with each trail segment management plan to evaluate options for trail development and to help ensure that there are no adverse impacts from development or trail use.

Native Plant communities

- Inventory native plants and invasive species present; as possible, remove or control invasive species.
- Locate new construction to avoid trampling of plants.

Anchialine Pools

- Inventory trailside pools before a trail segment is officially opened to public use to provide a baseline of information.
- Monitor pools after baseline established for the visible presence of red shrimp.
- Establish rules and regulations regarding public use of the pools.
- Engage Native Hawaiians, preferably with an association to the particular pool, to assess cultural features or use an anthropologist/ethnographer.
- Educate the public through signs and interpretive exhibits, and if necessary, place restrictions on trail use to protect pools along the trail route.

Marine Resources Related to Traditional Coastal Harvesting Resources

- Assemble baseline data to establish the abundance and diversity of the existing nearshore and reef resources and assess impacts through a monitoring program.
- Include local fishers and gatherers in trail planning to provide recommendations for fishery protection and sustainable gathering.

Cave Ecosystems

- Consider as significant any cave found along the trail on federal land and inventory its cultural, biological, and geological resources.
- In general, align the trail to move trail users away from caves that may contain significant natural

resources, burials, or other culturally sensitive materials without calling attention to the cave itself.

Endangered Plant and Animal Species

- Eliminate or reduce potential adverse impacts to listed and proposed species.

Fire Management

- On federal lands, follow the recommendations of the four national parks' completed fire management plans. For the three parks on the western side of the island, abide by the MOU between NPS and the County of Hawaii for reciprocal fire protection and initial response.
- On nonfederal lands incorporated into the Ala Kahakai NHT, prepare a fire management plan in coordination with appropriate state and county agencies.

Wilderness

- Participate in the development of and follow the recommendations of the Hawai'i Volcanoes NP Wilderness Management Plan for trail marking and use for the 14 miles of trail within the park's wilderness area.

Trail User Experience

Health and Safety

- Address health hazards as appropriate for each segment of trail or each site along the trail and offer information of potential dangers and the necessary precautions to take.

Recreation

- Complete, for public use, the linear trail within a priority zone from Kawaihae through Pu'uhonua o Hōnaunau National Historical Park to Ho'okena and protect other segments outside of that area, as feasible.
- Complete an auto tour that will lead visitors along the entire route to 18 sites associated with the trail.
- Include *mauka-makai* trails within the corridor and in the priority area, as appropriate, on public lands only, unless a private landowner expresses an interest in recognizing more than a single linear Ala Kahakai NHT. (Participation by private landowners is voluntary though encouraged.)
- Include canoe landings that reflect the traditional use of canoes in long-distance travel, as feasible.
- Provide opportunities for loop trail experiences.
- Accommodate long-distance hiking with strategically placed campsites.

Interpretation and Education

- Prepare a Comprehensive Interpretive Plan that includes a sign plan for the entire trail.
- Prepare an Interpretive Exhibit Plan for the entire trail.
- Tie interpretation and education to on-the-ground resources, *mo'olelo* (stories) and *wahi pana* (storied and sacred places) of each trail segment.
- Increase the availability of trail related facilities and programs through partnerships within the community management system.
- Promote hands-on application, understanding, and appreciation of conservation values and ethic.
- Provide a land-based setting where people can learn from kūpuna or other traditional practitioners and experience the school curriculum.
- Promote resource stewardship and support trail user safety, understanding and awareness of the need to preserve cultural and natural resources and the Hawaiian heritage with interpretive media.

Geotourism

- Work on initiatives to build local capacity for community-based economic development and revenue-generating activities using geotourism principles.

Facility Development

- Encourage development of trailheads and staging areas.
- Protect visual resources by developing design guidelines and applying them.
- Locate improvements to least affect each specific site's or trail segment's visual character.
- Fund development outside of NPS lands by state and local governments or private groups.
- Provide seed money, cost sharing incentives to nonfederal entities or technical assistance for planning, design, and legal and policy compliance.

Operations

- Seek additional budget appropriations to increase staffing.
- Encourage Ala Kahakai Trail Association, other partners, state and local governments, and private parties to raise supplementary funds necessary to fulfill the goals of the plan.

High Potential Sites and Segments and Interpretive Facilities

- Apply specific criteria in selection of high potential sites and segments and for including interpretive facilities

Trail classifications and management prescriptions

- Relate trail classifications to the degree of evidence of the *ala loa* or ancient and historic trails: unaltered, verified, linking, and roadway (auto tour) classifications.
- Relate desired conditions and trail experience to fundamental resources and values.

User capacity

- Employ limits of acceptable change process
 - Use trail classification and management prescriptions
 - Identify indicators
 - Set standards that represent minimum acceptable conditions
 - Monitor conditions in relation to indicators and standards
 - Take management actions to ensure that condition remain at or above standards

Trail identification marker

- Restrict marker use to the NPS and its partners for applications that help further the purposes of the trail.
- Develop a sign plan which includes specifications for marking the trail and use of the logo in coordination with the Comprehensive Interpretive Plan.
- Place auto route signs along state and county roads at appropriate road junctions.

Other Alternatives Considered

Two other alternatives for protecting and managing the Ala Kahakai NHT were thoroughly evaluated. Alternative A constitutes the No Action alternative and assumes that existing programs, facilities, staffing, and funding would generally continue at their current levels. As recommended in the *Feasibility Study* on which national trail status was based, a continuous trail would be the goal. However, the goal would not be achievable, even in the long-term, since the Ala Kahakai NHT would consist of trail segments within the four national parks through which it passes and only a few other segments, most likely on state lands within the priority zone for public trail completion from Kawaihae to Ho'okena. The NPS would administer the trail and would attempt with limited funding and staff to protect ancient and historic trail segments along the entire route employing as feasible the actions common to all alternatives described above. Trail management outside of the national parks would remain with the land managing agency or landowner. Recreation along the trail and interpretation of its history would generally be limited to the auto tour that would lead visitors to 18 sites associated with the trail.

Alternative B, Single Trail, considered completion of a single continuous trail comprised of unaltered or verified ancient and historic portions of the *ala loa* (coastal trail around the island) linked as needed by later pre-1892 trails, pathways, and modern connector trails. Within the planning period of 15 years, the goal would be to complete the linear trail within the priority zone from Kawaihae to Ho'okena and to protect other segments along the route outside of that area as feasible. The actions and strategies described above would be applied to the single linear trail. In the long-term, cultural and natural resources along the entire trail tread and agreed upon adjacent areas would be protected and interpreted to the public. The NPS would administer the trail, but management outside of the national parks would remain with the land managing agency or landowner. The NPS would offer technical assistance and limited financial assistance to these management partners. Partnerships with state and county agencies, community organizations, and private individuals would help protect trail resources and provide appropriate trail user services. Interpretation would be expanded beyond the sites included in the auto tour to the trail segments officially included in the Ala Kahakai NHT.

Basis for the Decision

In reaching its decision to select the preferred alternative, the National Park Service considered the purposes for which the Ala Kahakai NHT was established and brought into the National Trails System along with other laws and policies that apply to areas within the national trail corridor including the NPS Organic Act, National Environmental Policy Act, the National Trails System Act, Hawaii State and County laws, regulations and policies, and the *NPS Management Policies*. The NPS also sought and carefully considered the public's comments during the extensive planning process.

NPS staff and partners evaluated all of the alternatives with a variety of criteria and considerations to determine which management alternative could provide the greatest advantages to the public and to the NPS. The planning team evaluated alternatives to determine how well they

- Support the purpose, significance, and fundamental resources and values of Ala Kahakai NHT
- Best protect cultural and natural resources
- Attain the community vision for the Ala Kahakai NHT
- Provide a high quality visitor experience
- Maximize partnership opportunities
- Develop efficient operations

Compared to all of the alternatives considered for management of the national trail, the preferred alternative (selected action) best represents broad public sentiments about the future of the Ala Kahakai NHT. It emphasizes the traditional system of Hawaiian trails, provides broader resource protection, and offers the best opportunity for local users and visitors to experience the fullest range of the Hawaiian culture and to contribute to its protection.

Environmentally Preferred Alternative

The environmentally preferred alternative is the course of action that causes the least damage to the biological and physical environment. It is also the alternative that best protects, preserves, and enhances historic, cultural, and natural resources. It is the alternative that will promote the national environmental policy expressed in §101(b) of NEPA and includes:

1. Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Ensuring for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
3. Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
4. Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;
5. Achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources. (The planners determined criteria six to be inapplicable to this planning effort.)

Alternative C (the selected alternative) was deemed to be the environmentally preferred alternative because it surpasses the other alternatives in the potential to realize the full range of national environmental policy goals. It provides a high level of protection of natural and cultural resources while also providing for a wide range of neutral and beneficial uses of the environment. This alternative maintains an environment that supports a diversity and variety of individual choices. It integrates resource protection with an appropriate and more diverse range of Native Hawaiian, resident, and visitor (tourist) uses than the other two alternatives. It provides the potential to go beyond the protection of singular archeological and cultural sites and individual species to protect cultural landscapes and plant and animal habitat on public land. This alternative provides greater sharing of the culture of Hawai'i with visitors and better protection of traditional uses of the environment by Native Hawaiians than the other alternatives.

Alternative A, which describes the current and potential administration and management of the Ala Kahakai NHT under existing conditions, fails to satisfy the NEPA requirements outlined above. Shortage of staff, programs, and interpretive services limit existing staff to minimal operational effectiveness. The first two goals are limited to the four national parks, a few trail segments, and in the future, sites on the auto tour. The third and fourth goals are unlikely to be attained without additional funding and increased public support. Resource impacts would be expected to increase along most of the trail corridor as few trail segments would be brought under the administration of the NPS. Under this alternative, the fifth goal remains unattainable due to population increase, development pressures, and increased use of the trail route without a management presence.

Alternative B would meet the national policy goals but at a lower level than Alternative C. It would care for the environment of the trail for future generations, but would not preserve examples of the traditional Hawaiian system of trails as does Alternative C (goal 1). It provides for healthful and culturally pleasing experiences along a linear trail, but does not provide for the broader scope of experience of Alternative C (goal 2). It provides a wide range of beneficial uses of the environment, but Alternative C provides additional settings in which the Native Hawaiian culture can be more broadly experienced (goal 3). It better protects the trail environment and provides for a greater range of user experiences than Alternative A, but the area protected and the diversity of choices is less than the Alternative C (goal 4). While both Alternatives B and C provide a balance between population and resource use through carrying capacity evaluation, Alternative B does not provide the wide sharing of life's amenities potential in Alternative C through its cultural conservation programs (goal 5).

Measures to Minimize Environmental Harm

The NPS investigated all practical measures to avoid or minimize adverse environmental impacts that could result from the selected actions; these measures have been identified and incorporated into the new plan as detailed in the *Final Comprehensive Management Plan and Environmental Impact Statement*. Key measures and safeguards include the following:

- Conduct inventory and assessment to develop a consistent collection of natural and cultural information and trail data in a Geographic Information System (GIS) with full metadata to develop a trail-long profile.
- Develop a monitoring protocol for the entire trail so that trail conditions, protection and restoration of natural areas, and protection of cultural resources, and human use impacts and violations can be effectively measured and responded to.
- Conduct monitoring of sensitive cultural resource areas.
- Phase opening of trail segments to ensure no segment of the trail will be promoted for public use until significant cultural resources and values within that segment are documented, sensitive areas determined, and a segment-specific management plan in place.
- Conduct planning and design to carefully consider effects to cultural resources with the goal of creating no adverse effects to them.
- Provide sufficient information in site-specific biological inventories and assessments developed with each trail segment management plan to evaluate options for trail development and to help ensure that there are no adverse impacts from development of trail use.
- Inventory and monitor anchialine pools and establish rules and regulations for their protection.
- Assemble baseline data and assess impacts through monitoring of marine resources related to Native Hawaiian gathering.
- Apply state and federal cave protections laws.
- Initiate consultation with the USFWS regarding the Federal Endangered Species Act and eliminate or reduce potential adverse impacts to listed and proposed species in compliance with the provisions of the Act. State and county laws will also apply.
- Employ user capacity analysis to ensure the trail use does not harm cultural or natural resources.

Public Involvement and Agency Coordination

The April 4, 2003, publication of the Notice of Intent to prepare an environmental impact statement for the comprehensive management plan for the Ala Kahakai NHT formally initiated the public scoping period. During a three-month period ending June 28, 2003, the NPS planning team met with numerous individuals, community groups, private landowners, and government agency representatives to understand their concerns and visions for the Ala Kahakai NHT. In addition, the NPS conducted 9 open house meetings attended by 200 people representing the general public, private landowners, trail advocacy groups, Native Hawaiian organizations, and state, county, and federal agencies.

The NPS mailed 1830 public scoping meeting announcements using an address list that included hiking enthusiasts affiliated with Ē Mau Nā Ala Hele, relevant legislators, the Kaloko-Honokōhau NHP contact list, and interested individuals, organizations and agencies that provided their contact information to the trail staff. The NPS advertised meetings in the *West Hawaii Today* and *Hawaii Tribune-Herald* with notices appearing one to three days prior to the event and posted large signs on the meeting days in high-visibility areas on adjacent roadways and on buildings where the meetings were held to encourage walk-by and drive-by participation. Meeting announcements also appeared in the Ala Kahakai NHT and Ē Mau Nā Ala Hele newsletters.

Using the information from all of these sources, the NPS planning team developed five alternatives for management of the trail: Alternative A, No Action; Alternative B, Single Ala Kahakai Trail; Alternative C,

Ahupua'a Trail Systems; Alternative D, Historic Trail Clusters; Alternative E, Public Lands. The NPS released to the public a draft alternatives booklet dated April 6, 2004 describing these alternatives and inviting comment. In addition, the NPS conducted nine public meetings between April 17 and June 19, 2004 to gather comments. As a result of comments received at public meetings and in writing, Alternative E was eliminated because it appeared to be the initial step in completing an entire trail and therefore would be incorporated into the other alternatives.

During development of the draft plan, the planning team eliminated Alternative D from further consideration because it had been considered and rejected in the *Feasibility Study* for the trail, and Congress had designated a continuous linear trail. In addition, the public did not support it as a stand-alone alternative, suggesting that historic segments are a place to start to develop a continuous trail.

The *Ala Kahakai NHT Draft Comprehensive Management Plan and Environmental Impact Statement* (DCMP/EIS) was released during September 2007, during which time a newsletter including the executive summary of the DCMP was sent to a mailing list of over 1000 persons. Printed and electronic versions were made available. Over 200 copies of the printed draft and ten in compact disk (CD) format were distributed in late October to agencies, organizations, and the public who had participated in the planning process, requested a copy, or were identified by the NPS as potentially having an interest in the project. Twelve public libraries on the island of Hawaii and the main library in Honolulu received copies to make available to the public. Another approximate 150 copies and several CDs were handed out at public meetings or through requests to the superintendent. The 60-day public review-comment period began with publication of a Notice of Availability in the *Federal Register* on October 26, 2007. The public review-comment period ended on December 31, 2007, but the NPS continued to receive and accept comments for an additional two weeks.

In addition to solicitation of written comments, a series of six public meetings and open houses were held in the following six communities on the island of Hawaii from November 5-10, 2007: Kailua-Kona, Captain Cook, Pāhala, Waimea, Hilo, and Kapa'au. These meetings were advertised via the September trail newsletter mailed to approximately 1000 individuals, flyers distributed throughout the trail corridor, and articles that appeared in *West Hawaii Today* and the *Ka'ū Calendar* in late October and early November. Ninety people participated in these meetings, 30 of whom were not on the NPS mailing list, suggesting that meeting announcements and publicity were successful. In addition to the approximately 83 individual oral statements recorded on the meeting flip charts and 21 comment sheets completed at the meetings, the NPS received 40 responses. Many of the written comments came from people who had attended and commented at the public meetings. All oral and written comments were considered in developing the abbreviated final CMP/EIS.

The preponderance of public comment indicated that the NPS had proposed a reasonable approach for management of the national trail in Alternative C: *Ahupua'a* Trail Systems, the environmentally preferred alternative. Minimal concerns expressed centered on the impacts of increased public access on cultural resources, the capacity for NPS to manage the trail, priorities set in the plan, trail operations, natural resources, and coordination with other agencies, organizations, and individuals. The minor extent of combined oral and written comments received were not substantive to the point of requiring development of an entire new alternative, making major changes or revisions to an existing alternative, or requiring major modifications to the proposed actions.

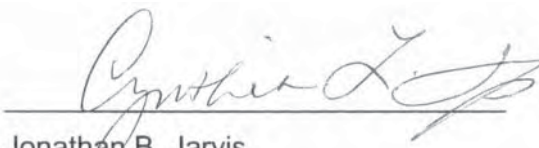
In a letter dated December 21, 2007, the Environmental Protection Agency (EPA) rated the draft EIS as LO—Lack of Objections, with recommendations that the NPS work closely with state and county agencies to ensure protection of watersheds and marine areas in the trail vicinity. In a letter dated February 12, 2008, the U.S. Fish and Wildlife Service agreed with the conclusions of the draft EIS that the project is not likely to have a negative impact on listed species and that it has much potential for positive impacts to native ecosystems and listed species. Two USFWS suggestions, made to assist the NPS in avoiding negative impacts to the endangered Hawaiian Hoary bats, were included in the final CMP/EIS. The Hawaii State Historic Preservation Division concurred with the selection of Alternative C in a letter dated January 15, 2008, but recognized the challenge of planning and implementing a trail through multiple jurisdictions and management authorities.

After considering all public comments on the DCMP/EIS, the planning team concluded that only minor edits to the draft document were needed, confined primarily to factual corrections not modifying the analysis; therefore, an abbreviated format was selected. This format requires the final document to be combined

with the DCMP/EIS to fully describe the final plan and foreseeable environmental effects (responses to public comments are also included). The final CMP/EIS was made available on October 24, 2008 via the internet and 150 printed plans were mailed the week of October 27, 2008 to all those who attended meetings, commented, or requested a copy. The *Federal Register* posted the NPS Notice of Availability on November 10, 2008. The NPS received no responses from the public following release of the final CMP/EIS nor were there any other developments that would affect the conclusions.

Conclusion

Among the alternatives considered, the selected action best protects the resources of the Ala Kahakai NHT while also providing a culturally sensitive educational and interpretive visitor experience focused on the trail's cultural history. It meets NPS management goals and national environmental policy goals within a context of Hawaiian cultural values. The official responsible for implementing the new CMP is the Superintendent of Ala Kahakai National Historic Trail.

Date: 1-29-09 Approved: 
for Jonathan B. Jarvis
Regional Director, Pacific West Region

Appendix D: Assessment of Consistency with the State of Hawaii Coastal Zone Management Program

The Hawaii Coastal Zone Management Program has ten objectives related to the topic of recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managed development, public participation, beach protection, and marine resources. Each of these topics is discussed below in relation to the *Comprehensive Management Plan/Environmental Impact Statement* (CMP) for the Ala Kahakai NHT. Approximately 40% of the Ala Kahakai NHT corridor is in CZM Special Management Areas.

Recreational Resources: *Provide coastal recreational opportunities accessible to the public.*

The comprehensive management plan calls for preserving ancient and historic segments of the coastal *ala loa* and connecting them with more recent trails, jeep roads and sidewalks to create a continuous trail parallel to the shoreline of approximately 175 miles in length. In addition, the plan's *ahupua'a* approach to trails incorporates *mauka-makai* trails on public lands and other lateral trails to recognize a traditional system of trails. Since the National Park Service (NPS) owns and manages only 17% of the Ala Kahakai NHT, this vision for the trail will be accomplished segment by segment over several years in close coordination with the Department of Natural Resources Nā Ala Hele Trail and Access Program and the Division of State Parks, Hawaii County, and private landowners, among others.

Some parts of the Ala Kahakai NHT are immediately on the shoreline on sandy trails, and some are removed from the immediate shoreline but parallel it and often beach access is available from the trail. As the trail is completed, it will enhance public access to the shoreline consistent with conservation of natural resources and cultural resources. Even those segments of the trail that are outside of the coastal zone will contribute to public access to the shoreline by providing a continuous trail and by incorporating other lateral trails and *mauka-makai* trails on public lands.

Historic Resources: *Protect, preserve, and where desirable, restore those natural and man-made historic and pre-historic resources in the coastal zone management area that are significant in Hawaiian and American history and cultures.*

The authorized purpose of the Ala Kahakai NHT is to preserve and protect ancient and historic segments of the coastal *ala loa*.

Archeological resources, historic structures, and cultural landscapes will be protected within the agreed upon trail tread and negotiated adjacent protected area as defined in management agreements for each trail segment. National Historic Preservation Act Section 106 consultation with the State Historic Preservation Officer will be initiated early in the process of inventory and development of management agreements. Not all sites along the trail route are known at this time, but the CMP includes a process for completing archeological and other cultural resource inventories. Table 1 lists known sites that would be protected. Not all of these sites are within the coastal zone, but all are significant in Hawaiian and American history and culture. All relevant federal and state cultural resource protection laws would apply to the trail.

Under the comprehensive management plan, an *ahupua'a* approach to management would be used in order to enhance the cultural values associated with the trail. Under this alternative, local communities would be encouraged to preserve and protect trail resources. Those with ties to the land would be consulted first and throughout the trail segment planning process. This approach is in keeping with the John Ka'imikaua's comments on stewardship. "[Under the 'aha councils] the people who lived in the *ahupua'a* had the last say about how their resources would be used....They knew how dependent they were on the environment and they all worked together to make sure that resources were preserved."

The basis of the trail protection program is the preservation of cultural features and landscapes that sustain the practice of Hawaiian values. Protection of a system of trails on public lands within an *ahupua'a* context would provide the opportunity for native Hawaiians to pursue traditional cultural, religious, and natural resource stewardship activities that may include sustainable gathering.

Scenic and Open Space Resources: *Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.*

No major construction is proposed. Facilities include trail marking and informational, interpretive, and directional signs. Where and when campsite development becomes feasible, composting toilets may be added. With the *ahupua'a* management approach, there would be opportunities to evaluate and protect scenic resources, especially those associated with Hawaiian stories and values.

To protect visual resources, trail administration would develop sign guidelines and design guidelines for trail and facility development for length of the trail. One source of guidelines is Minerbi (2004, p. 17) which presents a methodology for identifying scenic resources in the coastal zone. It accounts for landscape and topographic features, human perception, observation points, and objects of the observation that can be used to identify significant scenic areas along the Ala Kahakai NHT route, where changes of scenery occur, and where the aesthetic experience (always connected with the *mo'olelo* of the place) is enhanced.

Each trail segment to be incorporated into the Ala Kahakai NHT would receive site-specific planning that would locate improvements in a manner to least affect the area's visual character and views. Every attempt would be made to preserve views to the sea. Signs would be kept to the minimum required to inform trail users of safety, private property rights, and resource protection issues and would be designed to be appropriate to the area.

Coastal Ecosystems: *Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.*

Portions of the Ala Kahakai NHT corridor abut Natural Area Reserves and Marine Management Areas. In addition, portions of the trail pass through or by areas that provide habitat for endangered species of plants, birds, and mammals and areas that include anchialine pools or fish ponds.

Generally, the Ala Kahakai NHT will be managed to ensure that natural systems are not significantly affected. Site-specific biological inventories and assessments developed with each trail segment management plan will provide sufficient information to evaluate options for trail development to help ensure that there are no adverse impacts from development or trail use.

As trail and site development occur and site-specific surveys identify species which have been listed or proposed by the US Fish and Wildlife Service (USFWS), the National Park Service will contact the USFWS to initiate consultation under Section 7 of the Federal Endangered Species Act of 1973, as amended (Act). Potential adverse impacts to listed and proposed species will be eliminated or reduced in compliance with the provisions of the Act. State and county laws will also apply.

'Opaeha, red shrimp, are the single most important factor indicating the health of an anchialine pool. Before a trail segment is officially opened to the public, the presence of red shrimp in trailside pools will be inventoried to provide a baseline of information. Then pools along managed trail segments will be monitored for the visible presence of red shrimp. Protocols for managing and monitoring pools developed at Kaloko-Honokōhau NHP and other pool management plans required as a condition of development will be applied to other pools along the trail route.

Trail administration will establish rules and regulations regarding public use of the pools. Use of the most high value pools could be restricted for traditional, research, educational, and sanctuary purposes. High value pools are those that have (1) an array of native anchialine species, (2) a unique assemblage of euryhaline (species with a wide tolerance to salinity), and/or marine species, or (3) unique cultural features. Assessment of cultural features will be made by an archeologist (Brock and Kam, pp. 51-52). Public education through signs and interpretive exhibits, monitoring, and if necessary, trail use restrictions will be employed to protect pools along the trail route.

Economic Uses: *Provide public or private facilities and improvements important to the State's economy in suitable locations.*

The CMP for the Ala Kahakai NHT recommends using existing buildings and other existing facilities to provide information, interpretation, and education to local residents and visitors. Other than the potential for additional trail construction, no additional facilities would be located in the coastal zone as a result of this CMP. The preferred alternative does provide for heritage tourism, ecotourism, and geotourism, activities that could contribute to the economic welfare of local communities.

Coastal Hazards: *Reduce hazards to life and property from tsunami, storm waves, stream flooding, erosion, and subsidence.*

Trail administration would encourage the development of facilities that would address health and safety of visitors to sites and trail segments that are included in the Ala Kahakai NHT.

The user of the Ala Kahakai NHT can encounter a variety of hazards depending upon the location of the trail. These include poor air quality and hot lava due to the continuing eruption of Kīluea, tsunami, poisonous insects, exposure to *leptospirosis*, flash floods, and lack of potable water. Health and safety issues will be addressed as appropriate for each segment of trail or each site along the trail. Trail visitors can learn of potential dangers and the necessary precautions to take from brochures and other written information, from postings on the trail website, from signs at trailheads or trail sites, and other forms of interpretive media.

Managed Development: *Improve the development review process, communications, and public participation in management of coastal resources and hazards.*

This plan will have little effect on the development review process. The management approach relies on public participation in trail planning and plan implementation and therefore will involve the public in management of coastal resources and protections from hazards. Depending upon the trail segment owner and manager, if appropriate, compliance with the County of Hawaii Special Management Area (SMA) permit requirements would be made.

Public Participation: *Stimulate public awareness, education, and participation in coastal management.*

As noted above, trail management will involve local communities as much as possible in managing the trail and in educating the local users and tourists in coastal management.

Beach Protection: Protect beaches for public use and recreation.

For those sections of the trail that are located on sand near the shoreline, trail management would encourage protection of the beaches for public use and recreation. The presence of the trail adjacent to the shoreline may provide, but its very presence, protection of beach resources

Marine Resources: *Implement the State's ocean resources management plan.*

Trail use may lead people to the shoreline where they could fish or take advantage of other ocean resources. The concern of trail management will be the potential for overharvest of resources important to Native Hawaiian subsistence users of coastal resources. In order to determine the extent of impacts, if any, in areas that will be included in the Ala Kahakai NHT where local fishers and gatherers have expressed concerns, baseline data will be assembled to establish the abundance and diversity of the existing nearshore and reef resources. Once a baseline is established, a monitoring program will determine the significance of the impacts. Local fishers and gatherers will be included in trail planning to provide recommendations for fishery protection and sustainable gathering. This information could also be collected as ethnographic data. Interpretive media and informational materials will convey the limitations on fishing and gathering and encourage appropriate activities.

Appendix E: High Potential Sites and Complexes along the Ala Kahakai National Historic Trail

Cultural sites along national trails are especially vulnerable to impacts by uninformed users of trails. Many resources not readily apparent to the non-archeologist and individuals who are not descended from traditional residents of the land area crossed by the trails can be inadvertently damaged, or they may be intentionally looted. For that reason in a public document such as this, there is no attempt to list all of sites along the *ala loa*. The text below describes selected examples of generally recognized sites, complexes, and potential traditional cultural properties. The basic text, with minor corrections, is quoted directly from Helene R. Dunbar, *Cultural Resources Assessment Ala Kahakai, Hawai'i Island*, U.S. National Park Service, Department of Interior, San Francisco Support Office, San Francisco, California, 1997. The Dunbar text does not incorporate much ethnographic material, and as sites are considered for inclusion in the Ala Kahakai NHT, this information will be added to the descriptions.

This appendix adds information prepared by Kepā Maly of Kumu Pono Associates in order to suggest the level of personal relationship Hawaiians have to their lands, trails, resources, and gods and to suggest the range of sites that could be considered for the Ala Kahakai NHT. These additions are indicated by an asterisk (*) placed before the site name. A list of trail studies prepared by Kumu Pono Associates LLC is appended to the bibliography.

Kohala District

MO'OKINI HEIAU AND THE KAMEHAMEHA I BIRTHPLACE, 'ŪPOLU POINT

Mo'okini is the largest temple on Hawai'i Island, and one of the most significant sacred traditional cultural properties in the Hawaiian Islands. This National Historic Landmark is associated with a number of historic figures and events (Dunbar and Napoka 1990):

Construction is attributed to the priests Pā'ao and Mo'okini who arrived from *Kahiki* (a "foreign place" believed by

some to refer to the ancestral Polynesian homeland) around the 13th or 14th centuries. Several families today claim descent from these individuals.

The site has a long association with the Kohala District chiefs, including Kamehameha I's granduncle, Alapa'i nui who reigned as paramount chief of Hawai'i Island around 1740 A.D.

Mo'okini was one of Kamehameha's major temples, and a *luakini heiau*.

Kamehameha's high priest, Hewahewa, the last high priest of the Hawaiian kingdom, officiated here.

Formerly there was also a chiefly residence for the sacred high chiefs in Pu'uēpa-Kokoiki. Reportedly born at Kokoiki, Kamehameha I was most likely taken from his birth site nearby, to Mo'okini Heiau for his birth rituals.

According to tradition, the legendary priest-navigator Pā'ao first landed in Puna District where he built Waha'ula Heiau, a temple that shared some architectural similarities with Mo'okini Heiau (Emory *et al.* 1959). Finally he settled in Kohala District on the northern tip of land he named Uporu ('Ūpolu) after his home district somewhere to the south of the Hawaiian Islands. After an unspecified time interval, Pā'ao decided conditions were favorable for setting up a ruling chief of his own choosing, and obtained one from abroad ("Kahiki"). Pili Ka'aiea, himself a descendant of the ancient Polynesian gods, was installed as ruling chief of Hawai'i Island. Pili married into Hawaiian nobility and founded the chiefly family, which generation after generation, supplied the sacred rulers of the island of Hawai'i (Fornander 1969(1):86, 191-92, 201; (2):22, 38, 39). His descendants became the ruling chiefs of the six traditional chiefdoms of the island. With but one brief interlude, they ruled until 1893. Pā'ao himself became the high priest of an order he established, one that continued until 1819.

Only the temple remains. A state of Hawaii commemorative plaque marks the alleged birth site. The ancient trails, the former chiefly compound, and all other structural associations, were destroyed when the surrounding land was leveled for a sugarcane plantation in the 19th century.

The importance of Mo'okini Heiau has increased since recent lava flows covered Waha'ula Heiau, the

only other known structure associated with Pā'ao. The State of Hawaii in conjunction with Mo'okini Luakini, Inc., a non-profit private foundation, has partially developed this landmark for public interpretation. The site is maintained by personnel from nearby Lapakāhi State Park.

LAPAKĀHI STATE HISTORICAL PARK

Lapakāhi provides a glimpse into the life of the common people in contrast to the great centers maintained by the ruling chiefs of ancient Hawai'i. This 600-year-old farming and fishing settlement is partially restored. Lapakāhi contains the rock-walled foundations of house sites and canoe sheds, as well as shrines, burial cairns, and other features associated with daily life. A major network of terraces comprising the vast agricultural system that supported the settlement is located several miles inland above the village on the slopes of the Kohala Mountains. Although no archeological vestiges of the *ala loa* remain, multiple footpaths connect the coastal region with the upland agricultural fields. Lapakāhi is on both the State and National Registers of Historic Places.

PU'UKOHOLĀ HEIAU, KAWAIHAE

Pu'ukoholā National Historic Landmark is located within Pu'ukoholā National Historic Site, overlooking Kawaihae Bay in the district of South Kohala. It was built between 1790 and 1791. In addition to what may be vestiges of the *ala loa*, the landmark district includes Pu'ukoholā Heiau, Mailekini Heiau, the former Hale o Kapuni Heiau (a submerged shark temple), Pelekāne (the former chiefly residential complex), Kamehameha's "leaning post" (a *pōhaku* where he allegedly rested to watch sharks feeding at offshore Hale o Kapuni), and Pahukanilua, the homestead of John Young, the former British sailor who became a high chief under Kamehameha.

Kawaihae and Pu'ukoholā formed the setting of Kamehameha I's rise to power and consolidation of the Hawaiian Islands under one rule. By late prehistoric times, warfare had become a frequent means for the descendants of Pili Ka'aiea to enlarge territorial holdings. Kawaihae was a favored battleground; armies from the six kingdoms frequently fought here. Invading fleets from Maui Island also made Kawaihae their target. Apple (1969:12) says "remnants of defeated Maui war fleets, en route home from battles, refreshed at Kawaihae and sometimes cut down coconut trees there as final acts of defiance to the Hawai'i

chiefs." Mailekini Heiau was an ancient and important prehistoric and historic site associated with the inter-chiefdom and inter-island rivalry of the time period prior to Kamehameha I's rise to power; it was one of the prizes gained by the Maui or Hawai'i chief who held Kohala (Kamakau 1961:56, 58, 66, 110-111, 150).

A number of prominent historic figures are associated with the residential complex known today as Pelekāne. Although earlier paramount chiefs such as Alapa'i nui probably resided there sporadically, it achieved its greatest prominence between 1790 and 1810 when Kamehameha I was a frequent resident (Kamakau 1961:350). Pelekāne most likely was the birthplace of Queen Kamāmalu, daughter of Kamehameha I, in about 1802. She was the half-sister of Liholiho (Kamehameha II), and as permitted under ancient Hawaiian kinship rules, later became his wife. She died of measles, as did Kamehameha II, on a state visit to England in 1824 (Ii 1959:70). Liholiho, as Kamehameha II, was a periodic visitor to the king's residence at Kawaihae. We know that he retired there in the interim period following the death of Kamehameha I, and that he visited during journeys around the Island to the *luakini heiau* during the annual *Makahiki* ceremonial season. He began "...in Kailua, whence he went to Kawaihae and continued from there around the island to the Hale o Keawe" at Hōnaunau (Ii 1959:137). Tradition further indicates that Queen Emma, granddaughter of Kamehameha I and John Young, who became the bride of Kamehameha IV, may have been born or resided at Pelekāne (see Kelly 1974:16).

Finally, Kawaihae became the primary residence of John Young, who along with Isaac Davis, provided the technological knowledge of cannon, rifles, fortifications and martial arts that were indispensable to Kamehameha I's military successes and which served to preserve for history their role in Hawaiian unification. John Young in particular appears to have set the course that led Hawai'i into the sphere of American influence and ultimately to statehood (Apple 1969:22). His home in Kawaihae was the first western style structure built in the islands.

KALĀHUIPUA'A, AND 'ANAHO'OMALU, SOUTH KOHALA

Waikoloa Beach Resort is located in 'Anaeho'omalu and the Mauna Lani Resort is located in the land unit of Kalāhuipua'a. These resorts have incorporated historic preserves set aside in State historic preservation agreements. Sections of the ancient coastal trail, a prehistoric bypass trail, and

the historic (1880s) Māmalahoa Trail have been recorded at various locations within these historic preserves.

PUAKŌ PETROGLYPH ARCHEOLOGICAL PRESERVE (MAUNA LANI RESORT)

This extensive rock art site contains over three thousand units carved between 1000 and 1800 A.D. (Georgia Lee, personal communication, February 1996). Rock art specialist Edward Stasack (personal communication, February 1996) believes it may have been associated with the *ala loa* whose route may lie beneath the modern Puakō Road although there is no documentation or archeological confirmation.

Hawaiian petroglyphs appear to have served a variety of purposes. Many appear to commemorate personal experiences, or are acknowledgements of the *‘aumāku* (ancestral spirits). The place where the petroglyphs appear also may have had sacred importance. Other images may relate to mythology, and a few possibly depict pre-contact and early historic events. Common forms of stone carvings include dots, circles, straight lines, wavy and curved lines, and simple stick figures representing dogs, turtles, fish, birds, pigs, crabs and human beings. Some figures are fanciful anthropomorphs, but others depict men on surfboards, canoe paddlers with paddles in hand, sails and canoes. Post contact petroglyphs may depict western ships, horseback riders (*paniolo*), and Hawaiian words written in a style introduced by nineteenth century missionaries.

At Puakō, a large number of the rock art elements consist of cupules, sometimes covered with a stone. These holes (*lua*) are thought to be connected with a birth ritual of a new born child. It was believed that placing the umbilical cord stump (*piko*) in the pecked cup would generate helpful *mana* (spiritual power) to nourish the child. Many human forms also are depicted here including linear figures, family groups, triangular human figures and muscular figures. One of the most intriguing series of figures, close to the Ka’eo Trail (a modern access trail from Puakō up to Petroglyph Field A) is a line of thirty figures lined up head to foot that are believed to represent a column of marching warriors or perhaps a family lineage.

KALĀHUIPUA’A (MAUNA LANI RESORT) (SEE REGISTER MAP No. 824, J.S. EMERSON SURVEYOR, 1880)

This ancient land unit, containing a segment of the *ala loa*, centers around four fishponds, the largest of which, Kalāhuipua’a Fishpond, is still

in use today. Various stories are associated with the fishponds. The ancient trail (winding in and out under the 1800s trail) leads around the ponds and along the coast to dozens of ancient sites. Excavation of lava tube shelters and house sites confirms they were used from 1200-1700 A.D. Petroglyphs include triangular and linear human figures, dots, circles, *papamū* and an impressive depiction of a helmeted warrior.

*** KAHĀPAPA AND KU’UALI’I FISHPONDS AT ‘ANAEOHOMALU (SEE REGISTER MAP No. 824)**

An oasis along an otherwise arid coastline, the fishponds of Kahāpapa, Ku’uali’i, and the smaller brackish (anchialine) and fresh water ponds, provided ancient Hawaiians with the resources necessary to sustain themselves along the South Kohala coast. The fishponds were generally managed for support of the royal households, with rights of taking fish granted to the people of the land. This was particularly important during seasons of rough weather, when canoes could not leave the shore, as fish provided the primary protein to the Hawaiian populace. Ancient residents of the coastal lands around the fishponds also traveled regularly between the rich cultivated lands of the Waimea region, the coastal residences, and they left behind many reminders of past times. Historically, the fishponds remained in regular use through the early 1940s.

WAIKOLOA PETROGLYPH PRESERVE AT ‘ANAEOHOMALU (WAIKOLOA BEACH RESORT)

Protected within the Waikoloa Beach Resort are two restored, operative fishponds, C-shaped stone break walls used by early travelers as shelters against the prevailing wind, other structural remains, and the extensive Waikoloa Petroglyph Preserve through which the ancient *ala loa* passes. Common petroglyph carvings include cupules that may be associated with birth rituals. Other elements include various styles of human figures, canoes, a turtle, a crab claw, fishhooks, and a nineteenth century cowboy (*paniolo*) on horseback. A stick-figure image of Lono, god of the *Makahiki*, can be seen among the other petroglyphs beside the old foot-worn *Ala Māmalahoa*. It is estimated that the earliest petroglyphs were done around 800 A.D. when the ‘Anaeho’omalū region was first extensively settled.

Near the main Waikoloa petroglyph field is a large abrader quarry area on the inland side of the coastal bypass trail. “Here porous pieces of *pāhoehoe* were ground down in basin-like

depressions into hand-held sized abraders used for woodworking. Hundreds of basins on the *pāhoehoe* surface are scattered through this quarry. Also, a few temporary shelters are present in the form of rock shelter overhangs and a few small surface enclosures. Dates from these shelters show use of the quarry beginning about A.D. 1400 and increasing after A.D. 1600” (Cordy 1994b:14).

“At the Kona border, on the seaward edge of the coastal bypass trail, is a small rectangular platform, the Ke ahu a Lono, which Lonoikamakahiki is said to have built ca. 1640-1660 in commemoration of his reconciliation with his chief advisor, Kapaihihilina. The site is also identified as the *ahupua’a* shrine for the ‘Anaeho’omalua-Waikoloa area. The platform has recently been reconstructed and has temporary interpretive signage” (Cordy 1994b:14). This area is currently in need of repair.

North and South Kona Districts

* KAPALAOA COMPLEX, ANCHIALINE PONDS AND PETROGLYPH FIELD (SEE REGISTER MAP NO. 824; AND NO.1278, J.S. EMERSON, SURVEYOR, 1885)

Kapalaoa was the northern-most village of the North Kona District, being a part of the *ahupua’a* of Pu’u Anahulu. It was most likely closely tied to the ‘Anaeho’omalua-Kalāhuipua’a sites. The near shore boundary of Pu’u Anahulu-Kona, and ‘Anaeho’omalua-Kohala, is marked by an ancient *heiau* known by the name of Hi’iaka-i-ka-‘ale-‘ī. To the inland, where the *ala loa* passes from Kohala to Kona, is found the *heiau*, Ke-ahu-a-Lono, which is associated with events of the island king, Lono-i-ka-makahiki. The village at Kapalaoa remained in use by traditional Hawaiian families through the 1960s. The old house sites gave way to wooden structures, but families continued to use the old ponds and fisheries, and other sites associated with generations of residency in the region. One site on the southern side of the Kapalaoa village is a field of petroglyphs, with figures that span the generations, recording ancient images, the arrival of western sailing ships along the coast, and the use of letter printing to record the names of families of the land.

* WAINĀNĀLI’I AND KĪHOLO FISHPOND COMPLEXES, VILLAGES, AND LUAHINEWAI (SEE REGISTER MAP NO. 1278)

In ancient times, the residents of this region developed fishponds along the shore of Pu’u Anahulu and Pu’u Wa’awa’a. The fishponds were controlled by the chiefs, but the people who worked the ponds and lived on the land were allowed access to the fishery resources of the ponds in order to sustain themselves, while supporting their chiefly benefactors. The two fishpond complexes were still worked during the reign of Kamehameha I, with the Kīholo fishpond actually rebuilt in ca. 1811, under the direction of Kamehameha I. Like other sites along this coastline between Kohala and Kailua, traditional communities were established around the fishponds and freshwater sources. In the Wainānāli’i-Kīholo vicinity, native tenants also regularly traveled between the coast and the uplands of Pu’u Anahulu and Pu’u Wa’awa’a, where they tended extensive cultivating fields with seasonal movement between the shore and uplands, coinciding with the dry and rainy periods of the year.

Approximately one-half mile south of the Kīholo fishpond, the *ala loa* enters onto the 1800 lava flow, and passes the area of Luahinewai, a freshwater pond. Luahinewai is a significant sight in the history of the rise of Kamehameha I to power on the island of Hawai’i. It was at this pond, that Keōua-ku-‘ahu’ula—a cousin of Kamehameha I—participated in a ceremonial bath to prepare his body for sacrifice at Pu’u Koholā Heiau, in Kawaihae.

* KALAEMANŌ SALT WORKS AND HABITATION FEATURES (CEREMONIAL SIGNIFICANCE) (SEE REGISTER MAP NO. 1278)

Kalaemanō (The shark point) is an area of an ancient lava flow, surrounded by branches of the 1800 lava from Hualālai. The point was the traditional home of a shark-god, who protected the people and fishery resources of the region. Elders from the neighboring villages of Kīholo, Ka’ūpūlehu, and other lands to the south, learned that while passing along the *ala loa*, at Kalaemanō, one had to always travel with respect, as the shark’s home, a cave entered from the sea, was situated below an area crossed by the trail. Also, an extensive system of salt pans existed in this area. Fishing was the primary livelihood of the ancient and historic residents of this region—with the largest quantities of fish being the ‘*ōpelu*, a type of mackerel. These fish were caught, hundreds at a time, and salt

(*pa'akai*) made from the salt water, which was dried in salt pans at Kalaemanō, was used to preserve the fish. The dried *'ōpelu* were in turn, exchanged with people from other communities for items such as poi, and goods for various aspects of life.

KA'ŪPŪLEHU (KONA VILLAGE RESORT)

Despite alterations to the terrain wrought by the lava flows from the 1801 eruption of Mt. Hualālai, Ka'ūpūlehu contains the ruins of a prehistoric settlement on Kahuwai Bay, a petroglyph field of at least 324 units, restored fishponds and a portion of a *hōlua* sled ramp. Vestiges of the *ala loa* that probably circled the bay may be present; however, it is known the 1801 lava flow extensively altered the configuration of Kahuwai Bay. The prehistoric *ala loa* would have been buried wherever lava flowed to the sea.

The fifteen-acre Ka'ūpūlehu petroglyph field is one of the most significant and unique rock art sites in Hawaii. The most unusual aspect of the site is the large number of Hawaiian sail motifs pecked into the smooth *pāhoehoe* lava. There are scenes with figures in elaborate headdresses that seem to indicate chiefly concerns (Stasack and Lee 1992; Lee and Stasack, in press). There are also canoe paddlers and *papamū*. Other elements are unique and include a surfing fisherman, a head-to-head depiction of twins, elaborate kite designs, and what appears to be a captive individual slung from poles, possibly a sacrificial victim.

Ka'ūpūlehu is of historic interest, too, for the incident of the *Fair American* (1790), a ship attacked by Hawaiians who were retaliating for the flogging of one of their chiefs by Captain Metcalf of the ship *Eleanora* just a few days earlier. To lay hands on a chief by such means was punishable by death. Captain Metcalf's son, Simon Metcalf, was captain of the *Fair American*. He and all his men were slain, except for Isaac Davis, who escaped by swimming to shore. The crew of the *Fair American* is believed to be buried in the Ka'ūpūlehu area. However, Davis, who was captured, entered the limelight of history and became, with John Young, a trusted advisor of Kamehameha I.

*** KŪKI'Ō TO KAULANA—A SERIES OF SMALL VILLAGES, AND FEATURES ASSOCIATED WITH TRADITIONAL AND HISTORIC RESIDENCY, INCLUDING FISHPONDS AND ANCHIALINE POOLS. (SEE REGISTER MAP NO. 1278)**

The near-shore *ala loa*, connects a series of villages, including many associated features, with functions ranging from those resulting from daily subsistence

activities to ceremonial observances. Among the notable features are the remains of the great fishpond Pa'aiea, which was destroyed by the 1801 lava flow of Hualālai. The native accounts of the visit of Pele—in human form—to the region, and the refusal of the overseer of the fishpond to share fish with her, describe many *wahi pana* of the region. The account also explains why the small, life-sustaining anchialine ponds, fresh water pools, and fishponds remain on the landscape. A traditional saying of the ancient fishpond observed

O na hōkū o ka lani luna, o Pa'aiea ko lalo
— The stars are above, Pa'aiea is below.
(This refers to "Kamehameha's great fishpond Pa'aiea, in Kona... Its great size led to this saying—the small islets that dotted its interior were compared to the stars that dot the sky..." Pukui 1986:275 – 2515)

KEĀHOLE POINT TO KALOKO AHUPUA'A

"This stretch of land crosses the former *ahupua'a* of Kalaoa, 'O'oma, Kohanaiki, and Kaloko. The area consists of dry, arid lava lands near the shore. Prehistoric agricultural fields were several miles inland on the upland slopes where rainfall was sufficient for year-round cultivation. The bulk of the dwellings in this area, however, were along the shore, being connected to the upland fields by inland-heading (*mauka-makai*) trails" (Cordy 1994b:14). In contrast with the more densely populated Kaloko *ahupua'a* to the south, the settlements of Kohanaiki, 'O'oma, and Kalaoa, were small and dispersed, reflecting a notable drop in prehistoric population beyond Kaloko. Small clusters of house ruins are scattered just behind the sandy shore. Kohanaiki and 'O'oma each have small community *heiau* (a platform and enclosure, respectively) located immediately seaward of the *ala loa*'s former location (now marked approximately by a jeep road in the sand). "A few other small religious structures are present, notably a fishing shrine in 'O'oma which is a small platform with three upright stones. Additionally, a complex of modified tidal (anchialine) ponds in Kohanaiki are present, marked off by large stone cairns. These ponds seem to have been used in part for the raising of bait for offshore fishing" (Cordy 1994b:14).

Developers are currently planning two resorts for the Kohanaiki-'O'oma-Kalaoa area, (Kohanaiki and 'O'oma II). A number of historic sites will

be preserved, including Kohanaiki's *heiau* and several house sites. Just north, the remainder of 'O'oma and Kalaoa are on the State's Natural Energy Laboratory Authority's land. Here a multi-acre historic preserve encloses 'O'oma's *heiau*, the fishing shrine and several house sites. In Kalaoa, the best example of a small prehistoric house site along the trail is being preserved, and a historic preserve which includes a complex of 1800s to early-1900s house ruins has been set aside. All of these sites are scheduled for interpretation under state historic preservation agreements tied to development. (Cordy 1994b:15).

KALOKO-HONOKŌHAU NATIONAL HISTORICAL PARK

This great chiefly center is a National Historic Landmark (Honokōhau Settlement, December 29, 1962) and a developing National Historical Park. It contains over 200 sites and features denoting a sizable population in late prehistoric times. Some historic structures are also present. Almost every type of pre-contact structure is represented including 'Aimakapā and Kaloko fishponds (the largest surviving ponds on the island), and 'Ai'opio fish trap; several *heiau*; a *ko'a*; burial areas; house platforms; stone enclosures believed to be agriculture planters; a *hōlua* slide; canoe landings; lava tube shelters; salt pans; *papamū* surfaces for *kōnane*; and several types of trails. The latter include *mauka-makai* trails, the inland straighter-line historic *Ala Māmalahoa*, and the probable route of the *ala loa* along the shore, although the latter is no longer visible.

"The shoreline itself consists of fairly rugged *pāhoehoe* tidal rocks. A narrow band of sand usually lies just above the high tide line. The houses that were along this shore were generally found just inland of the coastal sand strip and would have lined the trail which ran in front of them on the sand... to the south of Kaloko fishpond are unwallied house ruins, both single structures and groups of multiple structures. One has been interpreted as a high chief's residence. To the north and back of the fishpond are house ruins that have one meter high enclosing walls around the house yards. These walled house lots are more common to the mid-1800s period. To the south of the fishpond are also two large pavings interpreted as community *heiau* and just inland is a large prehistoric cemetery. These Kaloko sites reflect a typical Kona community that would be found along the *ala loa*" (Cordy 1994b:15).

Kaloko has tremendous significance to people of Hawaiian ancestry, some of whom believe it is the sacred and *kapu* final resting place of Kamehameha I whose bones were placed in a hidden sepulcher near those of other noted *ali'i* (Kamakau 1964; USDI 1994:96). The location remains a closely guarded secret. Kaloko is also believed to be the resting place of Kahekili, ruler of Maui, as well as other members of the Kamehameha family.

KAMAKAHONU AND THE AHU'ENA HEIAU, KAILUA

Kamakahonu, located on the north side of Kailua Bay, was from 1813 to 1819 the residence of Kamehameha I. It was here that his heir, Liholiho (Kamehameha II) was declared king, and in November 1819, abolished the traditional religious system, the *Kapu*, an act that vastly altered Hawaiian life. It was also here that the first American missionaries came ashore in 1820 (after a brief stop in Kawaihae) to confer with Kamehameha II and his chiefs regarding a program for western religious instruction.

Only a fraction of the once multi-acre compound remains. The *ala loa* that formerly connected Kamakahonu with other settlements north and south of Kailua has been obliterated by modern construction, in particular Ali'i Drive, King Kamehameha's Kona Beach Hotel and its adjacent facilities, and modernization of the Kailua Wharf (Dunbar 1985). Most of the original 11 structures in the compound described by I'i (1959:117-121) were destroyed; however, Kamehameha I's temple, the Ahu'ena Heiau, has been reconstructed and can be viewed on guided interpretive tours sponsored by the King Kamehameha Hotel. Kamakahonu is both a State and National Historic Landmark.

HULIHE'E PALACE, KAILUA

The palace was built in 1838 by Kuakini, governor of Hawai'i and brother of Kamehameha's favorite wife, Ka'ahumanu. Later, King David Kalākaua (1874-1891) redecorated Hulihe'e and used it as a summer palace. Across the street (Ali'i Drive) is Moku'aikaua Church, the first Congregational church built in Hawai'i. According to Ellis (1963), stones from an old *heiau* were used for the foundation of the original church which was built in 1823 but destroyed by fire in 1835. The present structure was completed in 1837. Any vestiges of prehistoric or historic period trails have been lost to twentieth century construction.

* KAMOA-KEOLONĀHIHI POINT COMPLEX

Kamoa Point and the Keolonāhihi complex at Hōlualoa, was once a royal center and resort. The surf of *Pu'u*, which fronts the point was famed, and a place where *ali'i* and commoners sported. The land itself is host to several *heiau* and royal residences. The complex of *heiau* and residences also continued on the *mauka* side of the *ala loa* from Kamoa Point. One of the ancient mountain trails, later modified into what is now called the Judd Trail, also departed from this complex, ascending the slopes of Hualālai, and connected with other trails to Mauna Kea, Hilo, and the Kohala District. In this area, the ancient *ala loa* was modified into the Government Road system, and later paved as the present-day Ali'i Drive.

* LA'ALOHA

Like the Kamoa Point complex, La'aloa was once a chiefly center, and the site of another *heiau*, Haukālūa, passed by the ancient *ala loa*. While the trail itself is covered by the present-day Ali'i Drive, the ruins of the *heiau* may be seen in a County Park facility.

KAHALU'U ROYAL CENTER

Kahalu'u *ahupua'a* was the location of another famous prehistoric royal center. It was a residence of Lonoikamakahiki ca. 1640-1660, and the oral histories specifically note its use by Alapa'i nui, Kalani'ōpu'u and Kamehameha — successive rulers from 1740-1760 on. The focus of this center was Kahalu'u Bay, a sand fringed bay. The ruler's residence was on the south end of the bay by a natural pond called Po'o Hawai'i, and a number of large *heiau* encircled the bay. High chiefs' residences undoubtedly were nearby and some were in Keauhou *ahupua'a* just to the south. In Kahalu'u, eight major *heiau* are still present near the shore. Between the Keauhou Beach Hotel and the Kona Lagoon Hotel, Ke'ekū Heiau (a *luakini*) extends off the shore on the *pāhoehoe* tidal flats. At this enclosure-type *heiau* Lonoikamakahiki is said to have offered up the body of the Maui ruler, Kamalālāwalu, to his gods after an invading Maui army was routed and defeated in Kohala. Petroglyphs on the tidal rocks reportedly commemorate this event. One hundred feet away, also extending offshore is the ruins of Hāpaiali'i Heiau, and another 100 or so feet north is Kapuanoni Heiau, a temple dedicated to agricultural and fishing success. Just behind Kapuanoni is the Keauhou Beach Hotel, and on its landscaped grounds on the south edge of Kahalu'u

Bay is a pond — Po'o Hawai'i — where the ruler's residence is said to have been located. No surface architecture survives of the ruler's residence" (Cordy 1994b:16).

"Other *heiau* encircle the bay. The foundation of another *luakini*, 'Ōhi'amukumuku — used in the time of Kalani'ōpu'u and Kamehameha, is present at the head of the bay within a ruined churchyard. Ku'emanu, a large surfing *heiau*, is on the north edge of the bay. The houses of this center are largely gone today" (Cordy 1994b:16).

Some habitations are being preserved, as well as agricultural fields, just inland within the Keauhou Resort. The *ala loa* in this area passed inland of the *heiau* and ruler's residence; however, as with the royal center in Kailua, it now lies under paved Ali'i Drive, a two lane paved main road with adjacent modern houses, condominiums, and hotels.

KAMEHAMEHA III BIRTHPLACE, KEAUHOU

Keauhou was an important chiefly center and one of several important *ali'i* sporting areas along the Kona Coast in the prehistoric and early historic periods. Kamehameha III (Kauikeaouli), a younger son of Kamehameha I, was born there in 1814. The actual birth site consists of a natural arrangement of stones surrounded by a rock wall. Also on the water's edge, is the "Kauikeaouli stone," at which the still-born child, Kauikeaouli, was set, and brought back to life by the priest, Kapihe.

KĀNEAKA, THE KEAUHOU HŌLUA SLIDE

This National Historic Landmark is located above the Kamehameha III birth site, somewhat inland from the *ala loa* which at this location deviated from Ali'i Drive and paralleled the shore. Called Kāneaka, the Keauhou slide is the longest (over one-half mile) and largest hōlua sled run ever built by the Hawaiians, large enough to accommodate two parallel racers (Kamakau, 1961 & Dunbar 1987). The size of this structure dominates the landscape. The volume of stone used in its construction dwarfs that of the largest known temple platforms, making it in fact the largest surviving structure from ancient Hawaii.

It has been speculated (Kekahuna 1953; James 1995, as well as others), the slide originally extended another 3,000 feet, all the way down to the sea; however, there is no archeological evidence, historic photos, or information from the traditional sources to support such a claim. Curiously, not even the indefatigable recorder Ellis

(1963), who traveled the *ala loa* to Keauhou Bay, mentions the sled run although he commented extensively on the Hōnaunau slides which, by contrast, are considerably smaller. Today the Keauhou sled run ends abruptly at Ali'i Drive, leaving one with the impression that its terminus may have been truncated by highway construction.

LEKELEKE AND KUAMO'O BATTLE SITE (1819)

Not far from Keauhou Bay is the famous battle site where Kekuaokalani, nephew of Kamehameha I, fought against the forces of Liholiho (Kamehameha II) to restore the national religious system. The battle was first encountered at Lekeleke, near the Keauhou-Honalo boundary. Kekuaokalani's forces were then pushed further south to the lands of Mā'ihī and Kuamo'o, where the last battle occurred. This was the last battle fought on the island of Hawai'i. Kekuaokalani was defeated and killed. At Lekeleke in Keauhou and at Kuamo'o a little further south, rock platforms and stone mounds (*pū'o'a*) mark the burials of the slain warriors interred along the ancient *ala loa*. Cordy (personal communication, March 27, 1997) notes, "The trail is visible in this area, often as more modern curbed trail, flanked by house yard lots."

KEALAKEKUA BAY STATE HISTORICAL PARK

The lands and diverse cultural features between Keauhou and Kealakekua, are crossed via the ancient *ala loa*, portions of which were modified as early as the 1830s, when the young Hawaiian Kingdom, was establishing a system of government roads, the *Alanui Aupuni*. A number of *heiau*, residential complexes, *wahi pana*, and the Kāināliu, Nāwāwā, Onouli-Keōpuka, and Ka'awaloa village sites are among the traditional places passed via the trail. (Maly, 2006)

Kealakekua Bay, one of the ruling centers of the Kingdom of Hawai'i, was associated with many of the Kingdom's renowned rulers such as Keawenuia'umi, Lonoikamakahiki, Kalani'ōpu'u, Kīwala'ō, Kamehameha, Keaweaeheulu, Naihe, and Kapi'olani. Ka'awaloa on the north side of the bay was a chiefly residential complex. Nāpo'opo'o on the south side of the bay contained a priestly residential complex near Hikiau *heiau* as well as houses of commoners and lesser chiefs. Hikiau was one of six *luakini heiau* on Hawai'i Island, and at the time of western contact, was apparently the *heiau* and chiefly complex used for opening and closing rites of the annual *Makahiki* rituals. (Belt Collins)

Kealakekua Bay and the ancient village sites of Nāpo'opo'o and Ka'awaloa provided the background for one of the most dramatic events in the annals of culture contact. It was here that the British ships *Resolution* and *Discovery* dropped anchor on January 17, 1779, and here that Captain James Cook was feted as the god Lono, the god of agriculture and prosperity, on the temple platform of Hikiau Heiau.

Cook had first arrived in Hawai'i in 1778, stopping off at Kaua'i; however, his return the following year coincided with the annual *Makahiki*, the season that honored Lono with tribute offerings, feasting, competitive games, and *hula* performances. Traditionally warfare was taboo during this period. The emblem of Lono was an upright pole with crossbeam and hanging *tapa* cloth, which the Hawaiians likened to the mast and sails of the European ships. During this visit to Hawai'i Island, Cook performed the first Christian ceremony at Hikiau Heiau, a funeral service for a crew member who had died January 28, 1779. Within days, Cook's ships departed and all would have gone well, but fate ordained otherwise. A broken mast forced Cook's return to Kealakekua Bay for repairs. By then the *Makahiki* had ended and attitudes had changed. There followed a skirmish at the water's edge fronting Ka'awaloa village (a residence of ruling Chief Kalani'ōpu'u), and Captain Cook was slain. Cook had been attempting to take Chief Kalani'ōpu'u hostage in return for a cutter that had been stolen from his ship and later broken up by Hawaiians for its iron nails. Cook's body was then taken to nearby Puhina o Lono Heiau for traditional Hawaiian rites that included cooking and cleaning flesh from his bones, an honor afforded to only the highest and most sacred Hawaiian chiefs. A white obelisk on the north side of the Bay, the Captain Cook Monument, marks the spot where Cook lost his life.

MOKU'ŌHAI BATTLEGROUND (1782)

Located along the *ala loa*, Moku'ōhai was the decisive 1782 battle in which Kamehameha I defeated his cousin Kīwala'ō. The battle was fought in the land of Ke'ei near the bay listed on the maps as "Mokuakae" (Mokuoka'e describes a defiled area because of the bodies left behind).

PU'UHONUA O HŌNAUNAU NATIONAL HISTORICAL PARK

The current interpretive emphasis of this sacred precinct is on the religious structures associated with the use of the area as a temporary place of refuge (*pu'uhonua*) for children, women, the

elderly (and some chiefs as well) during war, or those fleeing punishment. “In a larger perspective, however, Hōnaunau was one of the royal centers along the Kona Coast. It contains the ruler’s residential area and immediately seaward a large wall (the Great Wall), at one end of which was a royal mausoleum (the Hale o Keawe). ... Seaward of the mausoleum, was the *luakini heiau* ‘Āle‘ale‘a, and other religious structures on the *pu‘uhonua* grounds. Houses of high chiefs extended south along the shore. And not far to the south were several *hōlua* slides. The *ala loa* entered this area of Hōnaunau from the north, passed along the inland side of the ruler’s dwelling, and then it may have proceeded seaward of the dwellings to the south” (Cordy 1994b:17).

“The Great Wall was said to have been constructed in the reign of Keākealanikāne, 1660-1680. And the ruler Keawe seems to have used Hōnaunau as one of his favorite residences, ca 1700-1720. Not surprisingly, the Hale o Keawe housed his bones, and those of his immediate family and descendants. Hōnaunau continued to be used occasionally as a royal center until the abolition of the *kapu* and the departure of the royal centers to other islands in 1820, but its primary period of use as a royal residential area may have been during Keawe’s reign” (Cordy 1994b:17).

“The *ala loa* is no longer visible in this immediate area as the park’s visitor center and parking lot are just inland of the royal residential area. In the ruler’s residential area, few ruins are visible on the surface — a pond and a portion of a nearby paving can been seen. However, archeological work, although limited, has found considerable subsurface remains. Notably, the Hale o Keawe, the Great Wall, and the ‘Āle‘ale‘a *luakini* platform have been restored. The Hale o Keawe’s thatched house, surrounding images, and wooden fence provide a striking re-creation of this mausoleum, one of only two once present on Hawai‘i Island. The massive size of the Great Wall and the ‘Āle‘ale‘a platform also readily give the viewer the impression of the scale of public-ceremonial structures at Hawaiian royal centers. The rubble ruin of another large *heiau* is also nearby. Beyond the *pu‘uhonua* area to the south, the ruins of the shore side dwellings and *hōlua* slides are also present, although they are not actively interpreted at this time” (Cordy 1994b:17).

* KAPALILUA REGION: HO‘OKENA-KAUHAKŌ, HO‘OPŪLOA, MILOLI‘I, OKOE BAY, HONOMALINO AND KAPU‘A (SITES

Departing from the famed *Alahaka* (cliff-side trail) of the Hōnaunau vicinity, one enters the Kapalilua region of South Kona. Here nearly the entire extent of the ancient *ala loa* remains intact, with some sections modified in the 1840s as a part of the Kingdom’s *Alanui Aupuni*. While appearing to be a rocky and almost desolate region, at numerous areas along the coast, ancient Hawaiians found fresh water, and sheltered bays provided them with safe places to live. Noted for its rich near-shore and deep-sea fisheries, this region was highly valued by its tenants. The uplands of this region were also sheltered by stands of forest, predominated by the ‘ōhi‘a (*Metrosideros polymorpha*), which sheltered an extensive system of dryland agricultural fields. While no streams flow across this land, the daily *kēhau*, a moisture laden breeze, flowing off of Mauna Loa each night, provided much needed moisture for cultivation of such crops as *kalo* (taro), *mai‘a* (bananas), and ‘*uala* (sweet potatoes). Numerous *mauka makai* trails also cross the individual *ahupua‘a* of the Kapalilua region. The upper forests contained extensive stands of *koa* (*Acacia*), and the coastal residents were known not only as excellent fisher-people, but also as skilled canoe makers (*po‘e kālai wa‘a*).

Among the sites documented in the State Register of Historic Place (1993), along this section of the trail are the Ho‘okena-Kauhakō Village sites, the Okoe Bay Village sites, the North Honomalino village sites, and the Āhole Hōlua and Kapu‘a village sites.

The trail passes thousands of residential features, canoe landings, and other sites associated with traditional life and ritual.

Ka‘ū District

Although sparsely inhabited today, Ka‘ū contains vestiges of many trails which attest to the travel of traditional residents and travelers across the landscape. The labor to create certain types of trails is indicative of powerful chiefs. Here, too, the trails, ancient village sites, chiefly residences with associated fishponds, and numerous coastal landing spots for canoes testify to the district’s former importance in trade and chiefly affairs.

Among the cultural resources listed on the State Register of Historic Places (1993), and sites accessed via the trail system are:

*Manukā Bay petroglyphs, habitation complex, and *hōlua* slide

*Kaiakekua and Keawaiki complexes

*Kā'iliki'i-Wai'ahukini fishing village complex, chiefly center

*Wai'ahukini (royal residence)

Ka Lae – The South Point National Historic Landmark District

The coastal attraction of Ka Lae for ancient Hawaiians and modern fishermen alike lies in the adjacent deep-sea fishing zone with its abundance of prized pelagic (open sea) game species. Powerful cross-currents meet here and bring schools of fishes making for excellent but dangerous fishing grounds where tuna (*aku* and *'ahi*), marlin (*a'u*), and dolphin (*mahimahi*) are still avidly sought.

The landmark consists of a series of archeological settlements, structures and features that define the area's significance as a favored fishing area in prehistoric time. There are dozens of ancient salt pans and canoe mooring holes carved into shoreline rocks; a significant fishing temple, Kalalea Heiau (reputedly used by Kamehameha I) at which offerings are still left by fishermen; and ancient habitation sites such as Mākālei Shelter, Wai'ahukini Shelter, and the famous Pu'u Ali'i Dune Site whose radiocarbon dates suggest it was among the earliest known settlements in the Hawaiian Islands. During excavations conducted by the Bishop Museum in the 1950s at several of the South Point habitation sites, thousands of fishhooks and fishhook fragments were recovered from datable deposits (the earliest fishhooks and stone adzes from the Pu'u Ali'i Site resemble forms from the Marquesas, 2400 miles to the south). The South Point fishhooks were serrated according to stylistic changes over time and thus provide a relative dating chronology for cross-dating other sites in Hawai'i (Emory, Bonk and Sinoto 1959).

The prehistoric *ala loa* passed across Ka Lae (South Point), but much of it was on sand and hence not visible.

* The Kalalea Heiau.

*Mahana Bay and Kapalaoa archeological district—canoe mooring, salt pans, fishhook manufacturing localities.

Further south through Ka'ū many other features exist, but they have not been inventoried and described.

PUNALU'U RUINS

The importance of this former royal center, which may be commercially developed and interpreted under a historic preservation agreement with the state, is evident in the remains of a huge *luakini* called Punalu'u nui overlooking the Punalu'u Bay and a coastal fishpond of the same name. Remnants of Punalu'u habitation sites are behind the pond. The area contains petroglyphs and east beyond Punalu'u, vestiges of a coral marked *ala loa*.

Puna District

All locations discussed in this section are within Hawai'i Volcanoes National Park.

As with Ka'ū District, there are many vestiges of trails that have interpretive potential, but there has been no systematic research to identify and date these remaining trail segments.

Some aspects of trail location and uses can never be known due to recent and vast lava flows. There are some clues in the literature, but for present purposes these remain inconclusive because it is not always clear if a reference to an "ancient trail" refers to the actual prehistoric *ala loa*, or to a nineteenth century trail.

Spears, who was doing archeological survey for Hawai'i Volcanoes Park in the vicinity of Pānau Iki (1995) is of the opinion (personal communication, with Holly Dunbar, October 9, 1996) that the Puna-Ka'ū trail ... referred to on the 1922 USGS maps and some later editions is in general an accurate guide to the older coastal trail route through the district. The following properties are included in Puna-Ka'ū Historic District (129,655 acres), a property entered on the National Register of Historic Places on July 1, 1974.

KEALAKOMO VILLAGE

Kealakomo is of historic interest because it was at this village on the ancient coastal trail that Reverend Ellis was met by some two hundred native inhabitants when he descended from a visit to Kilauea down to the coast. Coastal villages typically contain house sites, walled enclosures, canoe shelters, *ko'a*, *heiau*, and grave sites. Particularly

noteworthy of the rock art at Kealakomo is the large number (67) of *papamū*, or rectangles of dots where the checker-like game of *kōnane* was played. Emory *et al.* (1959a:3) noted that Kealakomo “was and still is important as a salt producing center. Dried fish were exported from here to ‘Ōla’a and inland places in exchange for taro [*kalo*], tapas, and other products which could not be produced on this dry coastal land.”

The Kealakomo visited by Ellis was a village already adapted to western contact; hence, there were probably already changes in traditional settlement pattern, with possible modifications to the alignment of the ancient pre-contact trail. Lava has inundated at least 85% of the area, but remains of the trail that passed through the area can still be picked up further east.

PU’U LOA PETROGLYPHS

This extraordinary site is located two and one-half miles east of Kealakomo. *Pu’u Loa* (“long hill” or “hill of long life”) has the most concentrated complex of petroglyphs (approximately 23,000 units) known in the Hawaiian Islands, and perhaps anywhere in the Pacific (Lee 1993; Lee and Stasack, in press). The most prevalent forms are the *piko* or *lua* glyphs associated with birth rituals for newborn children; however, human figures and other images are also carved in the *pāhoehoe*.

Although not specifically referencing the *ala loa*, Emory *et al.* (1959a:3) spoke of an ancient trail passing through the site:

...east of Kealakomo, and nearly a mile from the shore, the ancient trail passes over a *pāhoehoe* pressure dome about 400 feet long named Pu’u Loa, “Hill of Long Life.” The dome itself and the area along both sides of the trail as it approaches the hill from either direction are covered with hundreds of glyphs.

Prehistoric art specialist, Georgia Lee (personal communication with Holly Dunbar, February 20, 1996) also believes the prehistoric main trail through Puna was set back from the coast in this area and did go through the site. Spears, on the other hand, says of the “ancient trail” (1995:83):

...traveling west, as you approach Pu’u Loa, the trail veers southwest and thus by-passes the sacred nature of Pu’uloa. It continues inland on a westerly course, then turns toward the ocean where it comes out at the settlement of Kaena.

It is not clear if Spears is discussing the same ancient trail noted by Emory and Lee, or if she perhaps does not know the maximum extent and boundaries of this vast petroglyph field.

Hawai’i Volcanoes archeologist Laura Schuster (personal communication with Holly Dunbar, May 2, 1997) has walked the sections of the trail noted by Emory, Lee and Spears. Her description of the trail moves from east to west:

...the trail that continues through Pu’uloa connected with Lae’apuki ... As the trail crossed different *ahupua’a* the trail became more defined, with curb stones, etc. and for the length of the trail, an earlier trail alignment or worn *pāhoehoe* is visible. This earlier worn area would weave in and out of the curbstones along the trail section in Lae’apuki. The trail through Pānau nuiiki did not have curbstones and inland *mauka-makai* trails were present, but rare. The intersection of a trail, a hill like Pu’uloa, where the *piko* ceremony was carried out, and *ahupua’a* boundaries is a pattern that is repeated at least five times between Pu’uloa and Ka’ili’ili. I would agree with Emory that this is an old trail, [that] may have been modified in some areas, like Lae’apuki, but it is old.

LAE’APUKI AND KAMOAMOA VILLAGE RUINS

These former coastal villages and trail associations were destroyed in the same 1988-95 series of lava flows that encircled Waha’ula Heiau before eventually pouring into the sea. Lae’apuki (occupied until 1920) had been a traditional farming and fishing community whose local economy converted to goat and cattle herding following western contact. Kamoamo, an ancient farming and fishing settlement, had been partially destroyed by the *tsunami* of 1868.

WAHA’ULA HEIAU

The Waha’ula temple complex, inundated by lava in 1998, consisted of low wall enclosures. Construction has been attributed to the legendary Pā’ao (Malo 1951:6-7; Ladefoged *et al.* 1987:56) who is also credited with the construction or refurbishment of Mo’okini Heiau near ‘Ūpolu Point in Kohala. (Note: Cordy, personal communication with Holly Dunbar, March 27, 1997, believes “the oral histories relating to Pā’ao and Pili date to around A.D. 1400, using 20 years per generation.”) Thrum (1908:52) said the temple formerly had

a *pu'uhonua*, but this was not verified in the archeological work reported by Ladefoged (et al.). A possible explanation is provided by Kelly, citing unpublished notes by Stokes (in Bryan and Emory 1986:154), who says another *heiau* called Waha'ula, but located in the land of Kamā'ili, Puna, was claimed by local residents to have been the original *heiau* of Waha'ula, and that the stones were taken to Pūlama to build the large Waha'ula in its present location.

Waha'ula was reconditioned by 'Īmaikalani, a chief of Ka'ū in the late 1500s or early 1600s A.D., and again by Kalani'ōpu'u around 1770 A.D. Kamehameha I ordered the final renovations in early historic times, dedicating the temple to his family war god, Kūkā'ilimoku. In the early nineteenth century, Liholiho (Kamehameha II) visited Waha'ula during the peaceful period of the annual *Makahiki* cycle.

Other structures existed in the vicinity of the temple, including portions of the *ala loa*; however, in 1989 a massive lava flow crossed the Chain of Craters Road in Hawai'i Volcanoes National Park, covering hundreds of recorded archeological sites and surrounding the temple. In 1998, the lava flow encompassed the *heiau* itself.

Appendix F: Trail Segment Descriptions

with High Potential Segments Noted as 1 or 2¹

District/Ahupua'a and segment end points	Description (These descriptions are subject to change and on-the-ground verification.)
North Kohala	
'Upolu Point to Honoipu	A dirt jeep road is traditionally used, but not continuous due to private lands. More recent subdivisions have approved lateral and <i>mauka-makai</i> public access. Railroad r.o.w. with sugar history has been incorporated for public access in at least one subdivision [Chang].
Honoipu to Puakea Bay	Puakea Bay subdivision; shoreline trail maintained by Nā Ala Hele has a few dangerous spots near cliff edges [Chang].
Puakea Bay to Kapa'a	This segment has a concentration of historic sites. Parker Ranch subdivision is required to provide <i>mauka-makai</i> and lateral shoreline access. Lateral route is yet to be determined and <i>mauka-makai</i> is yet to be built [Chang].
Kapa'a to Māhukona	A portion of the railroad right-of-way north of Māhukona is a public access easement. Māhukona Resort has public access requirements, but the resort has not yet been built [Chang].
Māhukona to Lapakāhi	Right of lateral public access is undefined [Chang]. In Kaoma and Hihui the trail is set inland several hundred meters; visible as a faint depression with some stones slightly piled on either side [1] ² (Burgett and Rosendahl 1990). ³ At Lapakāhi, the trail swings closer to the sea, just behind coastal housing compounds [1] (Cordy, 1995).
Lapakāhi to Hawaiian Homelands	An <i>ala loa</i> is designated on maps, and segments have been claimed by the state. No historic trail remnants have yet been identified. In the private lands where the question has arisen, the jeep road is regarded as the <i>ala loa</i> route in the absence of physical remains of the historic trail. The State Conservation Land Use District is mostly located from the jeep road <i>makai</i> to the ocean.
Private Lands	On private lands there are several public access requirements which have not yet been built: One Landowner has applied for a Conservation District Use Permit (CDUA) to build an extensive single family dwelling complex. <i>Mauka-makai</i> and lateral public accesses have been proposed for that property. The proposed access avoids numerous historic sites and moves the jeep road access out of their family compound. The CDUA is currently on hold. In <i>Kaiholena</i> subdivision <i>mauka-makai</i> and lateral public access have been required through subdivision approval process (per Hawaii County Code Chapter 34). <i>Kahuā Ranch</i> and <i>Ponoholo Ranch</i> subdivisions are required to provide public access and an Archeological Preservation Plan is pending. <i>Gentry Pacific, Ltd.</i> (TMK 5-9-1:8) is undeveloped but has its SMA, REZ & SUB permits. Public access is required in those permits. <i>Kohala Waterfront</i> is the next subdivision with a public access. They have a public parking lot with <i>mauka-makai</i> access. The lateral access is a required easement, but large sections are overgrown. (TMK: 5-9-16:50)
State Lands	<i>Makai</i> of Kohala Ranch subdivision and <i>makai</i> of the Akoni Pule highway, TMK (5-9) a "Beach Trail" is shown leading to Waiakailio Bay crossing state lands [Chang].

¹ "Better archeological recording of the *ala loa* clearly is needed to document its current extent and condition. It will also be vital to distinguish between the prehistoric trail and later modifications. In some cases, the original trail may be modified. In other places, parallel or overlapping trails of different ages may be present" (Cordy).

² Numbers in brackets [] indicate the trail classification outlined in Chapter 3. These were determined from written reports or informal on-the-ground surveys and will be verified during the management planning process for each trail segment. Names in brackets [] reflect information from phone calls, emails, or other forms of communication.

³ All names in parentheses () refer to authors of printed material listed in the bibliography.

DHHL to Kawaihae	Department of Hawaiian Homelands (DHHL) is generally not supportive of public access. Waikā and Kahuā Trail just behind coastal housing compounds (Cordy, 1995).
South Kohala	
Kawaihae to Spencer Beach Park	Trail behind coastal housing enclosures until the sand shore of the bay; there it ran along the sand edge in front of house enclosures (Jackson 1883; Loebenstein 1903) Route of <i>ala loa</i> at Pu'ukoholā Heiau and the kings' residence is not clear (may have been seaward of the <i>heiau</i> (Loebenstein 1903) Māhele documents of late 1840s label the trail the <i>alanui</i> (Kelly 1974). Harbor security permits public access during certain hours. A lateral trail exists between Pelekane Bay in the Pu'ukoholā National Historic Site and Spencer Beach Park [Chang].
Spencer Beach Park to MKB	Portion of Nā Ala Hele State Ala Kahakai Trail to Mau'umae and from Mau'umae to Mauna Kea Beach Hotel (MKB) golf course. Nā Ala Hele is working with MKB to delineate the access through the golf course to Kauna'oa Beach [Chang].
MKB to Hāpuna Beach	A trail is open and visible on the ground. MKB responsible for management [Chang].
Hāpuna Beach to Puakō Bay	Trail is a dirt path. Nā Ala Hele has jurisdiction, has posted signs, and maintains a portion of it. Legal status of trail is not clear from Waialea Bay to Puakō Boat Ramp [Chang].
Puakō Bay to 'Anaeho'omalū Bay	Much of the lateral access along Puakō Bay is blocked by old sea walls. The lateral trail is continuous through Mauna Lani Resort all the way to 'Anaeho'omalū Bay. In sections it follows concrete sidewalks [Chang]. At Kalāhuipua'a, trail is a winding, crushed 'a'ā footpath 2-3 feet wide across Kanikū lava flow (Cordy). Only portions remain after extensive shoreline development [Chang]. On <i>pāhoehoe</i> lava, straight 1880s trail runs through the Waikoloa petroglyph field [1]. Nearby is a footpath worn in the lava, the prehistoric <i>ala loa</i> [1]. It winds in and out and under the late 1800s <i>ala loa</i> (<i>alanui aupuni</i> --"government road") (Cordy 1994.; Barrera 1971; Walker and Rosendahl 1986; Donham 1988; Jensen 1988, 1989).
North Kona	
'Anaeho'omalū to Kīholo Bay	The 1859 lava flow covered portions of the ancient <i>ala loa</i> . A network of historic trails on state land including extensive <i>mauka makai</i> trails; late 1800s <i>ala loa</i> (<i>alanui aupuni</i>) is present. In Pu'u Anahulu, the <i>ala loa</i> runs along the shore. The Hu'ehue to Kīholo Trail (<i>mauka makai</i>) is state-owned. The <i>makai</i> portion of that trail is maintained by Nā Ala Hele [Chang].
Kīholo to Ka'ūpūlehu	Near Lauahinewai Point, from Luahinewai Pond to Ka Lae Manō the ancient trail runs along the cliffs where it is a crushed 'a'ā path [1] (Cordy, 1995) and is in good historic condition. There is a new development under construction with public access requirements south of Ka Lae Manō and north of Kona Village Resort [Chang].
Ka'ūpūlehu to Kūki'o	An ancient segment between Four Seasons and Kūki'o Resorts is present. Trail is partially a crushed 'a'ā path with some beach stepping stones placed in the trail and partially on smooth <i>pāhoehoe</i> . [1] On intervening <i>pāhoehoe</i> lands and beaches, no remnant is visible (Cordy, 1995). Several significant <i>mauka-makai</i> historic trails in this area [Chang].
Kūki'o to Maniniowali	Some crushed 'a'ā path is apparent with some beach stepping stones placed in trail (Cordy, 1995). Historic lateral trail in good condition [Chang].
Maniniowali to Mahai'ula	Some ancient trail; Mahai'ula and Makalawena have <i>mauka-makai</i> trails in good condition [Chang].
Mahai'ula to Keahole Point	Informal jeep trail; historic preserve with anchialine ponds just north of Keahole Point; the jeep trail is blocked on the Keahole side, but can be hiked [Chang].

Keahole Point to Kaloko-Honokōhau NHP	Beyond the vast 1801 <i>pāhoehoe</i> flow, most of the route ran along the sand or <i>pāhoehoe</i> , leaving no visible remnants of the ancient trail (Cordy, 1995). The 1800s Mamalahoa Trail is still on the ground (absent where Queen Ka'ahumanu Highway covers it). It can be followed from NELHA through Kaloko NHP. It once extended all the way into Kailua-Kona. Access along the coast is a jeep trail; "The Shores" at Kohanaiki development has public access requirements. Public access routes and modes of travel will change with completion of Kohanaiki's development [Chang].
Kaloko-Honokōhau NHP to 'Alula Cove	'Alula Cove has a <i>heiau</i> nearby. State and DHHH lands surrounding Honokōhau Harbor and 'Alula Cove are proposed to be developed commercially [Chang].
'Alula Cove to Pawai	Wayfinding is necessary on <i>pāhoehoe</i> . Queen Lili'uokalani Children's Center (QLCC) land at Pawai [Chang].
Pawai to Old Kona Airport	An easy walk along the shore but QLCC has a private camping area at Pawai [Chang].
Old Kona Airport to Kailua Bay	A boat canal cuts off walking access to Kailua Bay. In Kona Bay Estates and Lanikai subdivisions traditional access rights were asserted via a law suit. As a result, the <i>ala loa</i> was restored by locating it on a low rock wall fronting both subdivisions' lots [Chang].
Kailua Bay to the end of Ali'i Drive at Keauhou	Historically, the trail ran along the route of today's Ali'i Drive to Kahalu'u in today's Outrigger Keauhou Beach Resort. The trail was mostly on <i>pāhoehoe</i> land but today is urbanized (Allen 1986; Hammatt, Borthwick & Shideler 1994:11; McDowd 1983; Tomonari-Tuggle 1985). From Kahalu'u, the path crossed rougher 'a'ā flows with large, smooth stones placed about three or four feet apart (Ellis 1863: 76). From Kailua to Hōkūkano, the <i>ala loa</i> was often flanked by houses. In the 1850s when house lots became walled with dry-laid stone, the trail passed through walled house lots (I'i 1959; Cordy 1994). The walled pattern can be seen today along the jeep road just south of Keauhou (Cordy 1994). Today there is public access next to the Ala Kala condominium sign that follows an ancient trail shown on the TMK; although extensively developed, there used to be several <i>mauka-makai</i> trails that have been preserved in various forms. Examples include the Judd Trail, Keauhou Trail and Makole'ā Trail. The coastal trail at Outrigger Keauhou Beach was developed by Bishop Estate years ago when given permits to pave a lateral trail for a public shoreline access. Through the years the pavement has been extensively torn up by high surf, and use of the lateral coastal access is a liability concern for the landowners involved. Still it is a popular coast for shoreline fishing, and there is a small beach between Outrigger Keauhou Beach and Keauhou Surf and Racquet Club to the south which has recently taken care of its public access requirements (<i>mauka-makai</i> and lateral) [Chang].
End of Ali'i Drive to Hokuli'a	The Old Government Road (OGR) is at the end of Ali'i Drive and extends along the coast into Hokuli'a and beyond.
South Kona	
Hokuli'a to Kealahou Bay	The <i>ala loa</i> is approximated by today's jeep road although in the Hōkūkano-Ke'ekē'e area a new route was built to bypass the shore, evidently in the late 1880s (Kaschko 1984:12-15; Hammatt et al. 1994:186-187). Hōkūkano Village is on state land, but many unprotected historic sites are there. The Old Government Road and old cart road are in good physical condition crossing private land of several landowners from Hokuli'a to Ka'awaloa. (TMK 8-1-7:45) [Chang] [1,2]. Some trail near Kealahou Bay is on 'a'ā lava. The walled house pattern can be seen today at Nāpo'opo'o on the south shore of Kealahou Bay [1] (Cordy, 1995). Steep cliffs cause the trail to be on top of Pali [Kawashima]. State Parks is in the process of including Ka'awaloa in the Kealahou State Historical Park to better protect historic sites there [Chang].

Kealakekua Bay to Hōnaunau Bay	<p>There is a 100 foot stretch of paving stone just south of Kipu rock about 200 feet from shore [1]. For the rest of this 4.5 mile stretch, the old trail has either been destroyed by storm waves or the route was over bare <i>pāhoehoe</i> leaving little or no trace (Cordy, 1995).</p> <p>The TMK (see 8-3-6) shows trails, including a <i>mauka-makai</i> trail which is historic and considered to be publicly owned [Chang].</p>
Hōnaunau Bay to Ho'okena	<p>The shoreline trail within Pu'uhonua o Hōnaunau NHP was washed away by storms, but well-documented segments of the 1868 trail and constructed stone ramp remain [1]. The trail passes through the ruins of Ki'ilae Village Trail. The first 2/3 of the trail to Ho'okena is in impressive physical condition and has many historic sites. The trail in places is built up 5' to 8' wide. The 8' trail surface has large flat inlaid lava rock with one foot high curbs. The last 1/3 has been bulldozed to accommodate jeep travel [Kawashima].</p>
Ho'okena to Ka'ohe Bay	<p>Just outside of Ho'okena, trails have not been explored. There are cliff areas along the coast making passage difficult. Trails probably traveled at top of cliffs [1] [Kawashima]. Trails and old roads tend to be inland of coast when there are cliffs. Here goats are an issue as they move the rocks forming the curbstones and make it difficult to identify historic trails. On the other hand in some places, they eat the grass and make the trail more evident. Further south, lava flows have destroyed some historic areas [Kawashima]. Old trails and roads are noted on old maps and archeology reports in Pāhoehoe and Ka'ohe <i>ahupua'a</i>. Trail in Ka'ohe has curbstones and it extends north to where it is covered by the 1950 lava flow [Chang].</p>
Ka'ohe Bay to Pāpā Bay	<p>Some jeep trail. At Kipāhoehoe and Pāpā Bay, the trail is one meter wide and made of paved beachstones on 'a'ā [1] (SHPD site inventory files for #4185 & #4182). This is an impressive stepping stone trail with big stones, sometimes two or three across. The trail stands out because it is on a lava flow with little vegetation [Kawashima]. In Kipāhoehoe, cairns mark a portion of the trail. The trail at Pāpā Bay consists of smooth beachstone paving and runs by the house sites of this former community (Cordy 1995).</p> <p>At Kukuiope at least one recent subdivision (TMK: 8-7-11:1) has set-aside the jeep road as the lateral, coastal public access right-of-way, presumably recognizing it as the rough equivalent of the <i>ala loa</i>. That subdivision has no archeological survey of its coastal area, so we don't know if there are historic trail remnants or sites. Another recent subdivision in Opihihale (TMK 8-7-14:6) has an archeological survey and several historic trail remnants were identified, both lateral coastal and <i>mauka makai</i> (as well as other sites). The subdivision approval required certain trails to be preserved in accordance with State Historic Preservation Division requirements [Chang].</p>
Pāpā Bay to Miloli'i	<p>Trail generally is apparent on open 'a'ā fields, although obstructed by kiawe in some places. [1] The trail at Pāpā Bay is extremely attractive, being one meter wide and consists of paved beach stones (SHPD inventory files, 4185). Jeep roads overlay the trail in some places.</p>
Miloli'i to Manukā	<p>On the south side of Honomalino Bay the trail is one meter wide and consists of large paved beachstones laid on 'a'ā [1] (SHPD site inventory files #1993) (TMK: 8-9). An aesthetically beautiful trail section is paved with large sized grey and white coral rubble. The area is filled with historic sites, <i>heiau</i>, the best preserved <i>hōlua</i> slide in the state, and much more [Chang]. The state legislature designated the areas of Kapu'a, Honomalino, Kaulanamauna, and Manukā a wilderness park which would allow State Parks to buy the private lands in Kapu'a. The Miloli'i area of the park is unencumbered State lands (Quinn)⁴. Footpath varying from well-established crushed 'a'ā to <i>pāhoehoe</i> to soil to sand [1 or 2]. Some trail is overgrown with kiawe (NPS, 1998a, p. F-4).</p>

⁴ Unencumbered state lands are owned by the state, but no management entity has been assigned to them.

<i>Ka'ū</i>	
Manukā to Humuhumu Point	Manukā Ahupua'a is state-owned and most is a Natural Area Reserve. The shoreline area is unencumbered State lands that could be used for a state park. From here to South point there are discontinuous pieces of trail: over 'a'ā, the trail is visible as a crushed path with steppingstones; on <i>pāhoehoe</i> , the <i>ala loa</i> is sometimes apparent as a worn path and sometimes left no remains except for stone cairns and pieces of coral [1, 2] (Haun and Walker 1987). A privately owned road to Humuhumu Point, "Road to the Sea," marks the south boundary of the <i>ahupua'a</i> .
Humuhumu Point to South of Pōhue Bay	Pōhue Bay is a sandy beach, a rare feature in this area, with anchialine ponds nearby. It is accessible by a locked, private road. A <i>mauka-makai</i> ancient trail in good physical condition leads from the Hawaiian Ranchos subdivision down to just south of Pōhue Bay. The area contains a concentration of pre- and post-contact petroglyphs. Along the <i>mauka-makai</i> trail are fascinating geological features as well as petroglyphs. The revised County General Plan removed the Resort designation that existed for the area and changed it to Open. The area is considered to be in a hazardous volcanic zone [Chang].
Pōhue Bay to Ka Lae (The Point or South Point)	There are discontinuous pieces of trail: over 'a'ā, the trail is visible as a crushed path with steppingstones; on <i>pāhoehoe</i> , the <i>ala loa</i> is sometimes apparent as a worn path and sometimes left no remains except for stone cairns and pieces of coral [1, 2] (Haun and Walker 1987).
Ka Lae to Ka'alu'alu	Little trail is visible at South Point where deep soils are present (Cordy 1995). A jeep road is present for the entire segment.
Ka'alu'alu to Kimo Point	Well-worn trail, some 'a'ā and some worn into <i>pāhoehoe</i> [1]. Jeep roads cut across the path and some trail is overgrown with vegetation.
Kimo Point to Honu'apo	A jeep road is shown on maps.
Honu'apo to Punalu'u	Between Hōkūkano and Hilea, a rugged 'a'ā field is present, and the "road across it was formed of large smooth round stones, placed in a line two to three feet apart" [1] (Ellis 1963: 142). In the Punalu'u area, this trail was called the <i>alanui aupuni</i> in 1852 (Kelly 1972: 56). From Honu'apo to Punalu'u, a later, straighter 1800s version of the <i>ala loa</i> is present. It has curbing, is wider, and has causeways. Parts of the old trail on the edge of Nīnole Fishpond were damaged by the 1868 tidal wave [1,2] (Kelly 1972).
Punalu'u to Kapāo'o (boundary of Hawai'i Volcanoes NP) ⁵	As elsewhere, the trail can be seen across the 'a'ā flows as trodden surface with it disappearing on the <i>pāhoehoe</i> [1,2,3] (Cordy 1995).
Kapāo'o to 'Opihinehe	"Ancient trail from Ka'ū to Puna has been off the map for many years." ⁵ A faint trail and <i>ahu</i> guide walkers [1,2].
<i>Ka'ū/Puna</i>	
'Opihinehe to 'Āpua Point	In 1930, Hudson noted that between Keauhou Landing and 'Āpua Point the trail was a "worn track across the smooth <i>pāhoehoe</i> flows (Hudson 1932: 89)." The Puna Coastal Trail extends from Halapē to 'Āpua.
<i>Puna</i>	
'Āpua Point to boundary of Hawai'i Volcanoes NP ⁵	Portions of the trail are visible. Stretches of rough 'a'ā are crossed by a trail made of waterworn boulders—one to three stones wide and continuous [1]. This continuous waterworn construction may be an architectural style somewhat unique to Puna although it is found in places in South Kona (Cordy 1995). Areas where this type of trail can be seen include 'Āpua (Emory et al. 1959:82) and Pūlama (inland of the site of Waha'ula heiau (Emory et al. 1959:71). In smooth <i>pāhoehoe</i> areas sometimes the trail is visible. [1]" This pattern continues on around the Puna shore and up to Hilo Bay (Cordy 1995).

⁵ The remainder of the trail is within the wilderness area of Hawai'i Volcanoes National Park. Overnight camping requires registration at the Kīlauea Visitor Center. Life threatening situations such as advancing lava flows, earthquakes, or tsunami occur in this area, and park rangers must be able to locate and account for all persons in the wilderness area. The native Hawaiian residents of Kalalpana and their guests have exclusive fishing and seafood-gathering rights from the eastern park boundary to a fenceline between Keauhou and Halapē.

Sources:

Ala Kahakai National Trail Study and Final Environmental Impact Statement, National Park Service, Pacific West Region, Pacific Great Basin Support Office, San Francisco, 1998

Ross Cordy, "The Ala Kahakai or the Ala Loa: An Archeological and Historic Preservation Perspective." Ms. on file, State Historic Preservation Division, DLNR, Honolulu, HI.

Deborah Chang: the first Program Manager of the Nā Ala Hele Trail and Access Program, recently with the Hawaii County Planning Department, and currently Hawai'i Trails and Access Consultant and on the Hawaii County Nā Ala Hele Advisory Council.

Irving Kawashima: Hawaii County Nā Ala Hele Trail and Access Specialist

Curt Cottrell: Program Manager of Nā Ala Hele Trail and Access Program (now with State Parks)

Appendix G: Hawai'i Island Guidelines for the Treatment of Historic Hawaiian Trails

HAWAII ISLAND GUIDELINES FOR THE TREATMENT OF HISTORIC HAWAIIAN TRAILS (SUBJECT TO REVISION)

(ADOPTED BY NĀ ALA HELE'S HAWAII ISLAND ADVISORY COUNCIL ON MAY 10, 2005)

PURPOSE: *The Nā Ala Hele Hawai'i Island Advisory Council recognizes the need to establish guidelines for consistent treatment of historic Hawaiian trails when developments occur adjacent to them (see attached "Ancient, Historic and Old Government Trails and Roads in Hawaii: A Summary of Pertinent Law"). While each situation poses unique circumstances and every case requires individual consideration, certain guiding principles can be agreed-upon. It is hoped that these guidelines will help with Council decision-making and take some of the guess work out of the process for the Council, developers, State and County agencies and the public. This is a working document that is subject to revision, as we find ways to improve upon it. Please check with the Nā Ala Hele Hawai'i Island program to make sure you are using the most current version.*

■ **If the Historic Hawaiian Trail Is Under State Jurisdiction, Consultation with the Nā Ala Hele Hawai'i Island Advisory Council Is Highly Recommended**

The Hawai'i Statewide Trail and Access System, known as Nā Ala Hele, is part of the Department of Land & Natural Resources' Division of Forestry and Wildlife. The program is required to establish advisory councils to solicit advice and assistance in the implementation of the statewide trail and access system. See attached "Fact Sheet" for more information on the Nā Ala Hele program.

■ **The Assessments of Trail Values by Nā Ala Hele's Hawai'i Island Program & State Historic Preservation Division (SHPD) Differ**

SHPD's assessment of the value of a historic trail depends on its physical condition and archaeological integrity. While SHPD recognizes the cultural value of trails, a trail's archaeological value (and SHPD's preservation recommendation) is greatly influenced by its present-day state of preservation and whether it is an integral part of a larger complex that is to be preserved.

Hawai'i Island's Nā Ala Hele (NAH) assessment of the value of a historic trail involves more than its current physical condition. In its assessment of trail values, NAH also considers these factors:

1. evidence that the trail historically existed by examining archaeological reports, historic maps, historic accounts, early surveyors' notes, land deeds, boundary testimonies, and/or cultural impact assessments,
2. whether the trail potentially connects to other trails to form more lengthy routes, and
3. the public purpose served in preserving the trail.

NAH may also recommend "land banking" of trails deemed to have public value when resources are lacking to open them to public use.

■ **Trail Relocation and/or Destruction**

It is the Hawai'i Island NAH Council's (hereinafter "Council") position that no relocation or destruction of historic trails be approved. Any such decision is done on a case-by-case basis, and many factors must be considered. Assessment of the trail's values (see previous section) is done, and council members may visit the subject area as part of decision-making. Council meetings are open to the public, and public opinion re: trail relocation and/or destruction is considered. Cultural experts, the State's Department of the Attorney General, and Nā Ala Hele's abstractor may need to be consulted. Planners, landowners and/or developers are encouraged to contact the Council early in the planning process. This can prevent misunderstandings and potentially costly delays.

■ **Trail Erosion**

When the trail is located in an area vulnerable to potential erosion, provisions for trail relocation in the event of trail erosion should be included in all trail-related agreements and approvals. This is in order to ensure that the negotiated trail will be usable forever. Water diversion techniques, i.e. waterbars, may need to be employed if water runoff is occurring or potential for soil erosion is present. Information on “Best Management Practices” (BMPs) to prevent or correct erosion problems is available through Nā Ala Hele.



Wave action has eroded the soil around the 'alā stepping stones.



Trail has become unusable in sections.

■ **Trail Width**

Trail widths vary. There are no standard widths. Sometimes widths are apparent through direct trail observation and archaeological studies. Trail widths can change over time as they are used for different purposes or experience natural forces, such as erosion. Sometimes widths are specified in land deeds, historic maps, or in County permit documents when trail easements are required.

■ **Breaches**

The number and width of breaches should be minimized. The original location of the trail should be restored within the breach, using materials that mimic the historic trail surface. In this manner the breached section will be connected to the original trail on either side. Review of planned breaches by the Council is recommended. Planners and developers are encouraged to request time on Council agendas for that purpose.



This is the preferred surface treatment. It mimics the authentic, historic surface while enabling road use.



The smooth, reddish cobblestone effect does not resemble the historic surface.

■ Buffer Width

Buffer widths vary. There are no standard widths. The council prefers widths of more than 15 ft., as measured from the trail's outside edges. This also applies to relocated and restored trails. Buffer widths are determined on a case-by-case basis and consideration is given to the archaeological integrity of the subject trail, surrounding environment, land uses, land ownership, and nearby natural and cultural features. The Council should be consulted early in the planning process.



Although 15 ft. from the trail's center line, the rockwall and house dominate. There is little historic ambiance here.



The feeling of open space and history is retained in the midst of a major resort when wider, natural buffers are present.

■ Buffer Treatments

Whether in its original historic condition or a realigned historic trail, no construction should be allowed within the buffers and the natural, existing terrain and grade should be maintained throughout the buffers. If the trail is in its original historic condition, only hand-clearing within the buffers should be permitted at any time.

In most instances, it is better to retain the existing vegetation, especially plants that provide shade. It is preferred that no landscaping be done within trail buffers unless the plants chosen are native to the area. The trail itself should be kept clear of vegetation.



Native plants such as *noni* sprout on their own.



The wild *kīawe* can be a welcome contrast to the manicured golf course.

■ Treatments Outside of Buffers

Surroundings immediately adjacent to trail buffers greatly influence the trail experience. When trails are near the shoreline, structures (including walls and fences) *ma kai* of the trails are discouraged to protect view planes and the historic ambiance. In some locations the natural lava "skin" may be the best choice if earth moving equipment has not already damaged the natural lava surface. Additionally certain plants can pose a safety hazard or result in undue maintenance requirements. Plants that drop large leaves and/or fruits (e.g., coconuts) or are likely to lean or encroach into the trail's buffer should be avoided.

Avoid plants that could become invasive, i.e., extensive root systems, exotic ground covers,

or prolific seed producers. Choosing native plants naturally growing in the area is likely to be the most practical approach, requiring minimal watering and special care. Be careful not to plant noxious weeds that are naturally occurring, such as fountain grass. Thorny plants should also be avoided.

Plant surveys done prior to the area's development can help to identify naturally occurring plants. Council members may be able to suggest resource people and sources for native plant materials.



Guy wires were used to keep the plumeria tree from falling into the trail.



Naupaka is encroaching into the trail, making it impassable by more than one person at a time.

■ Adjacent Historic, Cultural & Natural Sites and Interpretive Signs

Opening a trail to public use can potentially impact sensitive historic, cultural and natural sites adjacent to the trail. State Historic Preservation Division (SHPD) requires management plans showing how potential impacts of public use will be mitigated. In addition impacts to native Hawaiian customary and traditional rights and practices, and the alleviation of those impacts need to be addressed in the management plan.

Burials require special protection. Hawai'i Island's Burial Council (through SHPD) should be consulted for guidance. Certain cultural and natural sites may need to be closed to the public. It is recommended that those concerns be brought to the Council for recommendations and referrals.

It is essential to educate people about the significance of and proper behavior around trails and sensitive sites nearby. Signage can be effective in this regard. Interpretive signage planned for trails and adjacent sites should be reviewed by the Council. Check if standardized signage has been adopted for the particular area.



Note the property pin set into the historic trail.



Property markers of various types are commonly found in historic trails and walls. This one is secured with cement within a historic trail. Such practices deface historic sites.

■ Public Access Control

Privately owned public accesses are commonly open during daylight hours only. In such cases, the Council advocates consistent hours: from sunrise to 1/2 – 1 hour after sunset (allowing time for people to pack up and leave after enjoying the sunset).

Historic Hawaiian trails are a special case because traditionally those trails were in use at all times. The Council supports continuing that practice for historic trails and routes that (1) are connected to a public road or other historic trails or (2) lead to or follow the shoreline. The Council recognizes that situations may arise in which control of public access is necessary.

■ How to Contact the Hawai'i Island NAH Council

The Division of Forestry and Wildlife - Nā Ala Hele office can connect you to whoever is the current chairperson of the Advisory Council (974-4217). You can request to be on the agenda for the Council's monthly meeting. Contact of specific council members is also encouraged.

(4/17/05, dlc)

References for Draft Plan and EIS

- Apple, Russell A.
1965 *Trails: From Steppingstones to Kerbstones*. Special Publication No. 53. Bernice P. Bishop Museum, Honolulu, HI.
- Belt Collins Hawaii
1997 *Kealahou Bay State Historical Park Conceptual Plan, Final Draft*. Prepared for DLNR Division of State Parks. Honolulu, HI.
- Bonsey, Ed
2004 "Some Historical and Archeological Notes on the Coastal Area of the Park," unpublished manuscript, Hawaii Volcanoes National Park, on file at the park.
- Brock, Richard
1985 *An Assessment of the Conditions and Future of the Anchialine Pond Resources of the Hawaiian Islands*. Appendix C of Final Environmental Impact Statement U.S. Department of the Army, Permit Application (FILE NO. PODCO-O 1812-SD) Waikoloa Beach Resort, Waikoloa, South Kohala District, Island of Hawai'i, State of Hawai'i prepared for Transcontinental Development Co. Honolulu, HI.
- 1997 Telephone conversation with Meredith Kaplan, NPS, March 1997.
- 2005 Telephone conversation with Meredith Kaplan, NPS, October 13, 2005.
- Brock Richard and Alan K.H. Kam
1997 *Biological and Water Quality Characteristics of Anchialine Resources in the Kaloko-Honokōhau National Historical Park*. Technical Report 112. University of Hawai'i, University of Hawai'i at Manoa, Honolulu, HI.
- Brock, Richard E., James E. Norris, David A. Ziemann, and Michael T. Lee
1988 *Characteristics of Water Quality in Anchialine Ponds of the Kona, Hawaii, Coast*. Pacific Science (1987), vol. 41, nos. 1-4. University of Hawaii Press, Honolulu.
- Brown, Larry, County of Hawaii Planner
2006 Telephone conversation with Meredith Kaplan, NPS, November 1, 2006.
- 2007 Written review comments on Regional Review Draft, CMP/EIS for the Ala Kahakai NHT (undated), received by email February 28, 2007.
- Businger, Steven
1998 *Hurricanes in Hawaii*. Department of Meteorology University of Hawaii. <http://www.soest.hawaii.edu/MET/Faculty/businger/poster/hurricane/>
- C&H Properties, Inc.
2006 <http://www.chproperties.com/KohalaWaterfront.htm> accessed on November 8, 2006.
- Chai, David, Director of Natural Resources, Hualalai Development
2006 Telephone conversation with Meredith Kaplan, November 9, 2006.
- Chang, Deborah L.
1994 "Description of Anchialine Ponds," three-page manuscript with illustrations. On file at National Park Service, Ala Kahakai NHT office, Kailua-Kona, HI.
- Clark, John R. K.
1985 *Beaches of the Big Island*. University of Hawaii Press, Honolulu.
- Command, Bobby
2007 "County May Buy Waipio Land," *West Hawaii Today*, February 28, 2007 retrieved March 5, 2007 at <http://www.westhawaii.com/articles/2007/02/28/local/local02.txt>. Kailua-Kona, HI.
- Cordy, Ross
1995 "The Ala Kahakai or the Ala Loa: An Archaeological and Historic Preservation Perspective." Ms. on file, State Historic Preservation Division, DLNR, Honolulu, HI.
- 1997 "Review of Internal Review Draft of the *Ala Kahakai National Trail Study and EIS*." State Historic Preservation Division Log: 19, 230 Doc: 9703RC25
- 2000 *Exalted Sits the Chief: The Ancient History of Hawai'i Island*. Mutual Publishing, Honolulu.
- County of Hawaii, Department of Water Supply
2006 *Notice of the Availability of a draft Environmental Assessment and Finding of No Significant Impact – Drinking Water Spigot Project*. http://www.hawaii-county.com/water/DWSP_Public_Meetings_Notice.pdf
- County of Hawaii, State of Hawaii
2001 *The General Plan Revision, Draft*, Hilo, HI.
- County of Hawaii, Planning Department
1979 *Inventory of Public Shoreline Access* by Hiroshi Kasamoto, Inc. and P. Yoshimura, Inc., R.M. Towill Corporation, the Kikuchi Group, Hilo, HI.
- 1992 *Public Draft Report Northwest Hawaii Open Space and Community Development Plan*. Hilo, HI.

- County of Hawaii, State of Hawaii, Department of Research and Development
2005 *County of Hawaii Data Book*, accessed January 2006. http://www.co.hawaii.hi.us/databook_current/dbooktoc.htm
- 1996b "Draft Environmental Assessment Puna Emergency Access Road Puna District, Hawaii Island, State of Hawaii" in *Cave Conservationist, The Newsletter of Cave Conservation and Management*. Volume 15 No. 2 August 1, 1996.
- Curtis, Wayne
1991 "Trails in Trouble." *Backpacker* (August 1991) p. 26.
- DeLong, A. K.
2002 *Managing Visitor Use And Disturbance of Waterbirds, A Literature Review of Impacts and Mitigation Measures*. Prepared For Stillwater National Wildlife Refuge. Appendix L (114 pp.) in Stillwater National Wildlife Refuge Complex final environmental impact statement for the comprehensive conservation plan and boundary revision (Vol. II). Dept. of the Interior, U.S. Fish and Wildlife Service, Region 1, Portland, OR.
- Department of Geography, University of Hawaii
1983 *Atlas of Hawaii*, Second Edition, University of Hawaii Press, Honolulu, HI.
- Dunbar, Helene R.
1997 *Cultural Resources Assessment, Ala Kahakai, Island of Hawai'i*, National Park Service, Pacific Great Basin Support Office, San Francisco, California.
- Evans, Michael J, Alexa Roberts, and Peggy Nelson
2001 "Ethnographic Landscapes." CRM, Volume 24, No. 5, pp. 53-56. Cultural Resources, U.S. Department of the Interior, National Park Service. Washington, D.C.
- Hawaii Department of Business, Economic Development and Tourism.
2004 *Annual Visitor Research Report*. Honolulu Research and Economic Analysis Division. Honolulu, Hawaii.
- Hawaii Department of Health
no date *What is Leptospirosis?* Public information folder.
- Hawaii Heritage Program, The Nature Conservancy of Hawaii
1993 *Biological Database & Reconnaissance Survey of the Coastal Lands of the Kiholo Bay Area Island of Hawai'i*, Division of State Parks, Department of Land and Natural Resources, State of Hawaii, Honolulu.
- Heard, Justin J.
1990 "Impact of Golf Course Development Studied," *Makai*. Vol. 12, no. 11 (November 1990).
- University of Hawaii Sea Grant College Program.
Honolulu Advertiser
2006 *History Headed toward Hickam*, February 7, 2006 at honoluluadvertiser.com (accessed on October 31, 2006)
- Honolulu Star Bulletin,
2004 *Airport Force Bad for Airport State Says*, April 28, 2004 at Starbulletin.com, accessed October 31, 2006.)
- I'i, John Papa
1959 *Fragments of Hawaiian History*. Translated by Mary Kawena Pukui. Edited by Dorothy B. Barrere. Bernice P. Bishop Museum, Honolulu, HI.
- Josselyn, Michael, Molly Martindale, and Joan Duffield
1989 *Public Access and Wetlands: Impacts of Recreational Use*, Technical Report #9, Romberg Tiburon Centers, San Francisco State University, San Francisco, CA.
- Kamehameha Schools Hawaiian Studies Institute
1994 *Life in Early Hawai'i, The Ahupua'a*, Kamehameha Schools Bernice Pauahi Bishop Estate, Media and Publications Department, Honolulu, HI.
- Kamakau, Samuel
1961 *Ruling Chiefs of Hawaii*. Kamehameha Schools Press, Honolulu. HI.
- Knapp, Rhidiger and translated by Alvin Y. Yoshinaga and Hugh H. Iltis
1975 "Vegetation of the Hawaiian Islands," *Hawaiian Botanical Society Newsletter*, Volume 14, Number 5, December. Department of Botany, University of Hawaii, Honolulu, HI.
- Langlas, Charles M.,
2003 *Native Hawaiian Use of Hawai'i Volcanoes National Park: A Historical and Ethnographic Overview*, prepared for Hawai'i Volcanoes National Park.
- Lyons, C.J.
1847 Land Matters in Hawaii .*The Islander*, 1(19)
- Maciolek, John A. and Richard E. Brock
1974 *Aquatic Survey of the Kona Coast Ponds, Hawaii Island*. Sea Grant Advisory Report UHIHI-SEAGRANT-AR-74-04. April 1974
- Malo, David
1951 *Hawaiian Antiquities*. Translated by D. Nathaniel B. Emerson. Bishop Museum Special Publication No. 2. Bernice P. Bishop Museum, Honolulu, HI.
- Maly, Kepā
2005 "Working Paper," a review of draft text of Chapter 1 of the comprehensive management plan, dated December 5, 2005, submitted via e-mail and available as a digital file at the Ala

- Kahakai NHT office at Koloko-Honokōhau NP office in Kailua-Kona, HI.
- Marion, Jeff
2006 "Trail Effects on Wildlife," *Pathways Across America*, the Newsletter for National trails system Partners, Vol. 19, Number 1, Summer 2006, p. 8
- McNarie, Alan D.
2006 "Cousteau Society Repudiates Jean-Michel's Ka'ū Resort Plan" *Hawaii Island Journal*,
2004 "A Good Development?" *Hawaii Island Journal*, accessed at <http://hawaiiislandjournal.com/2004/01a04a.html> on November 7, 2006.
- Miller, Scott G., Richard L. Knight, and Clinton K. Miller
1998 "Influence of Recreational Trails on Breeding and Bird communities," *Ecological Applications*, 8:162-169.
- Minerbi, Luciano
2004 *Coastal Cultural Research Study Island of Hawai'i*. "Theoretical Basis for the Research Design, Progress Report Part I." Cooperative Agreement [between the] Office of Hawaiian Affairs [and] Department of Urban and Regional Planning. University of Hawai'i, Honolulu, HI. On file at the Ala Kahakai NHT office.
- Moore, Roger L. and Kelly Barthlow
1998 *The Economic Impacts and Uses of Long-Distance Trails, Featuring a Case Study of the Overmountain Victory National Historic Trail*. Prepared for the U.S. Department of the Interior, National Park Service. North Carolina State University, Raleigh, NC
- National Park Service, U.S. Department of the Interior
1992a *A Cultural History of Three Traditional Hawaiian Sites on the West Coast of Hawai'i Island, Pu'ukoholā Heiau National Historic Site, Kawaihae, Hawai'i, Kaloko-Honokōhau National Historical Park, Kaloko-Honokōhau, Hawai'i, Pu'uhonua o Hōnaunau National Historical Park, Hōnaunau, Hawaii*, by Linda Wedel Greene. Denver Service Center, Lakewood, Colorado.
1992b *Technical Appendix, Pu'uhonua o Hōnaunau N.H.P. Boundary Study*. Prepared for the National Park Service by Economic Research Associates. Pu'uhonua o Hōnaunau, Hōnaunau, HI.
1993 *VERP: A Process for Addressing Visitor Carrying Capacity in the National Park System*. Special Report. Denver Service Center, Lakewood, CO.
1994 *General Management Plan/Environmental Impact Statement Kaloko-Honokōhau National Historical Park Hawai'i*. Kaloko Honokōhau, Kailua-Kona, HI.
1995 *Visitor Experience and Resource Protection Implementation Plan, Arches National Park, Utah*. Denver Service Center, Lakewood, CO.
- 1998a *Ala Kahakai National Trail Study and Final Environmental Impact Statement*, National Park Service, Pacific West Region, Pacific Great Basin Support Office, San Francisco.
1998b *Guidelines for Evaluating and Documenting Traditional Cultural Properties* by Patricia L. Parker and Thomas F. King. National Register Bulletin 38, National Register of Historic Places, National Park Service, Washington, D.C.
1998c *NPS 28: Cultural Resource Management Guideline*
1998d *Wayside Exhibit Guidelines for National Scenic and National Historic Trails, the ABCs of Planning, Design, and Fabrication*. National Park Service, Harpers Ferry Center, WVA.
1999a *Guidelines for Evaluating Rural Historic Landscapes* by Linda Flint McClelland, National Park Service and J. Timothy Keller, ASLA Genevieve P. Keller, Robert Z. Melnick, ASLA Land and Community Associates. National Register Bulletin 30, National Register of Historic Places, National Park Service, Washington D.C.
1999b National Park Service, Water Resources Division. Baseline water quality data: inventory and analysis: Pu'uhonua o Hōnaunau National Historical Park.
1999c *Comprehensive Management and Use Plan/Environmental Impact Statement for the Oregon, California, Mormon Pioneer, and Pony Express National Historic Trails*, National Park Service, Denver Service Center, CO.
2000 National Park Service Water Resources Division. Baseline water quality data inventory and analysis Kaloko-Honokōhau National Historic Park Technical Report NPS/NRWRD/NRTR-99/247: United States Department of the Interior, National Park Service, Water Resources Division. National Park Service Water Resources Division. Baseline water quality data inventory and analysis Pu'ukoholā Heiau National Historic Site
2004a Environmental Assessment Wildland Fire Management Plan, Hawai'i Volcanoes National Park, Hawai'i. <http://www.nps.gov/havo/manage/fire/20041117fireea.pdf>
2004b *Environmental Assessment/Assessment of Effect, Reestablishment of the Historic Scene at Pu'ukoholā Heiau National Historic Site, Hawaii County, Hawai'i*. Prepared by Tetra Tech, Inc. Honolulu, HI
2005 *Pacific Island Network Vital Signs Monitoring Plan: Phase III Draft, December 15, 2005*.

- Appendix A: Ala Kahakai National Historic Trail Resource Overview. Prepared by Page Else. http://www.nature.nps.gov/im/units/pacn/monitoring/plan/2005/appendix_a_alka-resources_pacn-p3-mon-plan.pdf
- 2006a "Air Quality Hawaii Volcanoes National Park." <<http://www2.nature.nps.gov/air/permits/havo/>> accessed 1/17/2006
- 2006b "Ka'ū Coast, Hawai'i Reconnaissance Survey," June 2006. United States Department of the Interior, National Park Service. Draft on file at Pacific West Regional Office-Honolulu.
- 2006c Letter dated April 18, 2006 from Geraldine Bell, Superintendent Kaloko-Honokōhau NP to Mr. Scott Condra. Jacoby Development, Inc. on file at Kaloko-Honokōhau NP, Kailua-Kona, HI.
- Oceanit
2006 *Kona Kai Ola Environmental Impact Statement Preparation Notice*, prepared for Jacoby Development, Inc with Hawaii Department of Land and Natural Resources and Department of Hawaiian Home Lands, prepared by Oceanit, Honolulu, HI.
- O'Halloran, Terry, Hawaii Superferry spokesman
2006 Telephone conversation with Meredith Kaplan, NPS, October 17, 2006.
- Oregon-California Trails Association (OCTA)
2002 "Mapping Emigrant Trails: MET Manual." Prepared by the Trail Mapping Committee, fourth edition, Oregon-California Trails Association, Independence, MO.
- Owen, Don and Steve Elkinton
2006 "The Ecological Significance of National Trails," *Pathways Across America*, the Newsletter for National trails system Partners, Vol. 19, Number 1, Summer 2006, p. 4-5.
- Pratt, Linda
2006 Telephone conversation with Meredith Kaplan, July 2006.
- Schwarzkopf, Kent
2006 "Appalachian Trail Natural Heritage Inventories," *Pathways Across America*, the Newsletter for National trails system Partners, Vol. 19, Number 1, Summer 2006, pp. 6-7.
- Soma, Glen
2006 Hawaii Department of Transportation Harbors Division, email to Meredith Kaplan, NPS, 10/26/2006.
- Springer, Hannah Kihalani
No date "Coastal KEHAKA field Guide of Ka Hauaka'i ma ke kai, A Shoreline Trails Expedition Across the West Hawai'i Resort and Park Belt, sponsored by E Mau Nā Ala Hele, December 4, 5, & 6." On file at the NPS Ala Kahakai NHT office at Kaloko-Honokōhau NP.
- State of Hawaii
1991 *Na Ala Hele Hawai'i Trail & Access System Program Plan*. Honolulu, HI. Division of Forestry and Wildlife, Department of Land and Natural Resources, State of Hawaii
- 1992 "Description of the Ala Kahakai Trail." Ms. on file, Trails and Access Program, DLNR, Honolulu, HI.
- 2002 *Management Plan for the Ahupua'a of Pu'u Wa'awa'a and the Makai Lands of Pu'uuh Analu'u*, Department of Land and Natural Resources, Division of Forestry and Wildlife, Division of State Parks, July 15, 2003. Honolulu, HI.
- 2003 *State Comprehensive Outdoor Recreation Plan (SCORP)*. Honolulu, HI. Department of Land and Natural Resources, State of Hawaii
- 2004 Report to the twenty-third legislature Regular Session of 2005 on *A Report on the Findings and Recommendations of Effectiveness of the West Hawai'i Regional Fishing Management Area*, prepared in response to Hawaii Revised Statutes (§188-F5). Division of Aquatic Resources, Department of Land and Natural Resources. http://www.hawaii.gov/dlnr/dar/pubs/ar_hrs188F5.pdf. Accessed January 2006.
- Stone, C.P.C, D.B. Stone, L.W. Cuddihy, M.E. Lane, organizers/editors
1987 "Biological Conservation in Hawaii, Key Topics (Essays for educators, Lay Persons, and Decision-Makers)." Preliminary Papers for Limited Distribution. Workshop on Conservation Education in Island Ecosystems, Hawaii Volcanoes National Park, National Park Service.
- Taylor, Audrey R., Richard L. Knight
2003 "Wildlife Responses to Recreation and Associated Visitor Perceptions," *Ecological Applications*, 13: 951–963, Ecological Society of America. Retrieved November 28, 2006. <http://www.esajournals.org/pdfserv/i1051-0761-013-04-0951.pdf> r 28.
- Tetra Tech
2004 *Final Environmental Impact Statement Transformation of the 2nd Brigade, 25th Infantry Division (L) to a Stryker Brigade Combat Team in Hawai'i*, prepared for the Department of the Army and the US Army Corp of Engineers, Honolulu, HI.
- The Ka'ū Calendar
2007 "Would the Superferry Impact Ka'ū?" *The Ka'ū Calendar*, March, 2007, p. 25.

- Tomonari-Tuggle, M.J. and H. David Tuggle
2004 *Archeological Overview and Assessment for the Three West Hawai'i Island Parks, National Park Service, Task 3: Overview and Assessment, Part A: Pu'uuhonua o Hōnaunau National Historical Park; Part B: Pu'ukoholā Heiau National Historic Site; Part C: Kaloko Honokōhau National Historical Park*. Prepared for TetraTech Inc. and the National Park Service, International Archaeological Research Institute, Inc., Honolulu, HI.
- Trulio, Lynne
2005 "Understanding the Effects of Public Access and Recreation on Wildlife and their Habitats in the Restoration Project Area," *Public Access and Wildlife*, Issue 9
- Trulio, Lynne, professor, Department of Environmental Studies, San Jose State University
2006 Personal communication, December 7, 2006.
- Trulio, Lynne, Jana Sokale
2002 "Preliminary Findings: 2 Years of Field Research from the Wildlife and Public Access Study," *Wildlife and Public Access Study, An Ecological Investigation*. Association of Bay Area Governments, Oakland, CA. Retrieved November 28, 2006. http://www.abag.ca.gov/bayarea/baytrail/W&PA/PDF/Preliminary_Findings_Year2.pdf.
- 2006 "Shorebird Responses to Non-motorized Recreation Around San Francisco Bay," manuscript in preparation available from Department of Environmental Studies, One Washington Square, San Jose, State University, San Jose, CA.
- Trust for Public Land
2006 "Historic Honu'apo Coastal Area Protected (HI)." Press release found at http://www.tpl.org/tier3_cd.cfm?content_item_id=20802&folder_id=269. Retrieved March 1, 2007.
- United States Department of Commerce, National Oceanic and Atmospheric Administration
1997 Letter dated April 21, 1997 from Eugene T. Nitta, Protected Species Program Manager. On file at National Park Service Pacific Great Basin Support Office, Planning and Partnerships Team, San Francisco.
- United States Geological Survey
2000 Fact Sheet 169-97 Volcanic Air Pollution—A Hazard in Hawai'i. Online Version 1.1, revised June 2000. Accessed January 12, 2006.
- University of Hawaii, Department of Geography
1983 *Atlas of Hawaii*, University of Hawaii Press, Honolulu, HI.
- Wagner, Warren L., Derral R. Herbst, S.H. Sohmer
1990 *Manual of the Flowering Plants of Hawai'i*, Volume 1. University of Hawaii Press, Bishop Museum Press. Honolulu, HI.
- Walsh, Bill, West Hawai'i aquatic biologist, Division of Aquatic Resources, DLNR,
2006 Telephone conversation, January 19, 2006

Studies Incorporating Trails and the Cultural Knowledge of Traditionally Associated People

Maly, Kepā

- 1998 *KEKAHA WAI 'OLE O NĀ KONA*. A Report on Archival and Historical Documentary Research, and Oral History Interviews for Kekaha Kai State Park. Ahupua'a of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'owali, and Kūki'o, District of North Kona, Island of Hawai'i (TMK Overview:7-2). (*Kumu Pono Associates Report HiKe10-030498*)
- 1998 *KA'ŪPŪLEHU MA KA 'ĀINA KAHA*. A Report on Archival and Historical Documentary Research and Oral History Interviews. Ahupua'a of Ka'ūpūlehu, District of North Kona, Island of Hawai'i (TMK 7-2-03). (*Kumu Pono Associates Report HiKaupu16-052098*).
- 1999 *NĀ ALA HELE MA KAI O KOHALA HEMA* (THE COASTAL TRAILS OF SOUTH KOHALA). Archival-Historical Documentary Research, Oral History–Consultation Study, and Limited Site Preservation Plan Kawaihae–'Anaeho'omalū Trail Section: Lands of Kawaihae 2nd, 'Ōuli, Lālāmilo, Waikoloa, Puakō, Waimā, Kalāhuipua'a and 'Anaeho'omalū; District of Kohala, Island of Hawai'i (TMK Overview Sheets: 6-2, 6-8 & 6-9). (*Kumu Pono Associates Report HiAla17K-043099*).
- 1999 *PU'U ANAHULU AND PU'U WA'AWA'A (NĀPU'U), AT KEKAHA – KONA, HAWAI'I*. A Report on Archival-Historical Documentary Research, and Oral History Interviews. Cultural-Historical Documentation for Ahupua'a Based Planning in the Lands of Pu'u Anahulu and Pu'u Wa'awa'a (Nāpu'u); District of Kona, Island of Hawai'i (TMK Overview Sheet 7-1). (*Kumu Pono Associates Report HiPu'u26-070799*).
- 2000 *KAIHOLENA MA KOHALA WAHO – A* Historical Overview of Kaiholena and Vicinity, Leeward Kohala, Hawai'i. Kaiholena 1st and 2nd, North Kohala, Island of Hawai'i (TMK 5-8-01: por. 11). (*Kumu Pono Associates Report HiKaiho39a-021000*).
- 2000 *NĀ HONOKŌHAU – NĀ HONO I NĀ HAU 'ELUA* (HONOKŌHAU – BAYS OF THE TWO WIND-BORN DEWS): HONOKŌHAU AT KEKAHA, NORTH KONA, HAWAI'I. A Report on Archival-Historical Documentary Research, and Oral History Interviews for The Ahupua'a of Honokōhau Nui & Iki. Prepared In Conjunction with an Environmental Impact Statement – Land Use Boundary Amendment Application (TMK 7-4-08: por. 13 and 30). (*Kumu Pono Associates Report HiHono33b-030100*).

Maly, Kepā & Onaona Maly

- 2001 *HE WAHI MO'OLELO NO NĀ 'ĀINA, A ME NĀ ALA HELE I HEHI 'IA, MAI KEAHOA A I KEALAKEKUA, MA KONA, HAWAI'I* (A HISTORICAL OVERVIEW OF THE LANDS, AND TRAILS TRAVELED, BETWEEN KEAHOA AND KEALAKEKUA, KONA, HAWAI'I). A Study of Archival-Historical Documentary Literature, Oral History – Consultation Interviews, and Kama'āina Recommendations on Site Preservation in the Lands of Keauhou, Honalo, Māhihi, Kuamo'o, Kawanui, Lehu'ula, Honua'ino, Hōkūkano, Kanāueue, Haleki'i, Ke'eke'e, 'Ilikāhi, Kanakau, Kalukalu, Onouli, Keōpuka, Ka'awaloa and Kealakekua, North and South Kona, Island of Hawai'i (TMK Overview Sheets – 7-9, 8-1, 8-2). (*Kumu Pono Associates Report HiAla40-061501*).
- 2001 *HE WAHI MO'OLELO NO NĀ 'ĀINA A ME NĀ 'OHANA O KI'ILAE A ME KAULEOLĪ MA KONA HEMA, HAWAI'I*. A Collection of Traditions and Historical Accounts of the Lands and Families of Ki'ilae and Kauleolī, South Kona, Hawai'i (TMK 8-5-05 – various parcels). (*Kumu Pono Associates Report HiKii56-050101b*).
- 2002 *HE WAHI MO'OLELO NO NĀ KE'EI MA KONA HEMA, HAWAI'I*. A Collection of Traditions, Historical Accounts and Kama'āina Recollections of Ke'eī, South Kona, Hawai'i. (*Kumu Pono Associates LLC Report HiKe'eī63-072602*).
- 2002 *KĪPĀHOEHOE MA KAPALILUA–KONA HEMA, HAWAI'I*: A Cultural Study of Kīpāhoehoe and Neighboring Lands in Kapalilua, South Kona, Island of Hawai'i (TMK 8-8-01:5,6,7,10,11,12,13). (*Kumu Pono Associates Report HiKipa70-070502*).
- 2003 *'O'OMA–KĀHI I HĀNAI AI 'O KA-LANI KAU-I-KE-AOULI* ('O'oma–Where the King Kau-i-ke-aouli was Raised). A Report on Archival and Historical Documentary Research, and Oral History Interviews for the Ahupua'a of 'O'oma, District of Kona, Island of Hawai'i (TMK Overview Sheet 7-3-09). (*Kumu Pono Associates Report HiOoma75 (010303)*).
- 2004 *'ĀINA LEI ALI'I – KEAHOA A ME KAHALU'U MA KONA, HAWAI'I*. A Cultural Synthesis for the Royal Lands of Keauhou and Kāhalu'u, District of Kona, Island of Hawai'i (TMK Overview Sheet 7-8-10). (*Kumu Pono Associates LLC Report HiKeau90-012104*).
- 2004 *HE MO'OLELO 'ĀINA*: A Cultural Study of the Manukā Natural Area Reserve Lands of Manukā, District of Ka'ū and Kaulanamauna, District of Kona, Island of Hawai'i. (*Kumu Pono Associates LLC Report HiNARS80-Manuka 072004*).
- 2004 *HE MO'OLELO 'ĀINA*: A Cultural Study of the Pu'u o 'Umi Natural Area Reserve and Kohala-Hāmākua Mountain Lands, Districts of Kohala and Hāmākua,

Island of Hawai'i. (*Kumu Pono Associates LLC*
Report HiNARS80-Puuoumi 051504-c).

- 2005 *HE WAHI MO'OLELO NO KA 'ĀPANA 'ĀINA*
O HO'OKENA MA KAPALILUA, KONA HEMA,
HAWAI'I. A Collection of Traditions and Historical
Accounts of the Lands and Families of the
Ho'okena Section of Kapalilua, South Kona,
Hawai'i. (*Kumu Pono Associates LLC* Report
HiHookena92-032505).
- 2005 *HE WAHI MO'OLELO NO KEAUFHOU A ME NA*
WAHI PANA MA LAILA. A Collection of Traditions,
Historical Accounts and Kama'āina Recollections
of Keauhou and its Storied Places; With Notes
from Adjoining Lands in Ka'ū and Puna, Island
of Hawai'i. (*Kumu Pono Associates LLC* Report
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County of Hawaii

Mayor Harry Kim

Department of Planning

Chris Yuen

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Larry Brown

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Department of Parks and Recreation

Pat Englehard

Department of Land and Natural Resources

State Na Ala Hele Trails and Access Program

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Dan Quinn

MaryAnne Maigret

State Historic Preservation Office

Pua Aiu

Theresa Donham

Morgan Davis

Wendy Souza

NPS PWR Oahu Staff

Frank Hays

Melia Lane-Kamahele

NPS Hawaii Island Superintendents

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