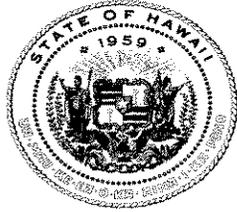


LINDA LINGLE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

DIVISION OF STATE PARKS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

October 9, 2006

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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE  
COMMISSION  
LAND  
STATE PARKS

Ms. Genevieve Salmonson, Director  
Office of Environmental Quality Control  
235 S. Beretania St., Suite 702  
Honolulu, HI 96813

RECEIVED  
06 OCT 11 AM 1:30  
OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

Dear Ms. Salmonson:

**Finding of No Significant Impact for Kōke'e Trailhead and Parking Improvements**

The Division of State Parks has reviewed the comments received during the 30-day comment period which began on July 8, 2006. We have determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the October 23, 2006 issue of the Environmental Notice.

Enclosed are a completed OEQC publication form and four copies of the final EA. Please contact Lauren Tanaka at 587-0293 should you have questions.

Very truly yours,

Daniel S. Quinn  
State Parks Administrator

2006-10-23-KA-FFA KOKEE TRAILHEAD AND PARKING  
IMPROVEMENTS.

OCT 23 2006

FINAL

ENVIRONMENTAL ASSESSMENT

KŌKE'E TRAILHEAD AND PARKING IMPROVEMENTS

KŌKE'E and WAIMEA CANYON  
STATE PARKS, KAUA'I

Department of Land and Natural Resources  
Division of State Parks

October 2006

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I. PROJECT SUMMARY

Project Name Kōke'e Trailhead and Parking Improvements

Project Location Canyon Trailhead, Kōke'e Rd., mile marker (mm) 14  
Waimea Canyon State Park  
Island of Kaua'i  
TMK 1-4-01: por. 2 and TMK 1-4-02: por. 93 (State of Hawai'i)

and

Water Tank Trailhead, Kōke'e Rd., mm 16  
Kōke'e State Park  
Island of Kaua'i  
TMK 1-4-01: por. 13 (State of Hawai'i)

and

Kanaloahuluhulu Overflow Parking  
Kōke'e Road, mm 16  
Kōke'e State Park  
Island of Kaua'i  
TMK 1-4-01: por. 13 (State of Hawai'i)

Land Use Conservation District, Resource Subzone

Proposing Agency State of Hawai'i  
Division of State Parks  
Department of Land and Natural Resources

Approving Agency State of Hawai'i  
Department of Land and Natural Resources

Agency Determination Finding of No Significant Impact

Agencies & Organizations Consulted

Federal: US Fish and Wildlife Service, Pacific Islands Field Office  
National Aeronautic and Space Association, Kaua'i, Hawai'i  
Pacific Missile Range Facility, Kaua'i, Hawai'i

State: Department of Agriculture  
Department of Education, Kaua'i District  
Department of Health  
Department of Land and Natural Resources

ADA Coordinator  
Division of Conservation and Resources  
Enforcement  
Division of Forestry and Wildlife  
Historic Preservation Division, Kaua'i Island Office  
Land Division  
Division of State Parks  
Department of Transportation  
Highways Division, District Office  
Office of Hawaiian Affairs  
University of Hawai'i, Environmental Center

County of Kaua'i: Department of Public Works  
Planning Department

Other Organizations: Bishop Museum, Hawai'i Biological Survey  
Conservation Council of Hawai'i  
Hawai'i Audubon Society  
Hui o Laka  
Kaua'i Outdoor Circle  
Kaua'i Island Utility Cooperative  
Kaua'i Hunting Association  
National Tropical Botanical Garden  
Sierra Club, Kaua'i Chapter  
The Nature Conservancy of Hawai'i  
Wildlife Conservation Association of Hawai'i

## II. INTRODUCTION

Kōke`e State Park (SP) and Waimea Canyon State Park (SP) are contiguous parks in the northwestern uplands of Kaua`i (Fig. 1). Kōke`e SP is comprised of 4,345 acres located to the north of Waimea Canyon, and is identified by TMK: 1-4-01:13, 19; 1-4-03:1-14, 16-17; and 1-4-04:1-14, 16-21, 24, 27-33, 35-50. Waimea Canyon SP comprising 1,837.4 acres, is along the western rim of Waimea Canyon and is south of Kōke`e, identified by TMK 1-2-01:3, 4, 8 and 9; 1-4-01:2 and 3; and 1-4-02. The parks are surrounded by Nā Pali Coast State Wilderness Park and the Nā Pali-Kona Forest Reserve in the north, and Pu`u ka Pele Forest Reserve, Hawaiian Home Lands, and state-owned agricultural lands in the south.

Kōke`e SP is situated on the forested high plateau and dissected uplands that rises to a little over 4,000 feet above sea level. The park transitions from mesic montane forests found in the southern and western portions of the park to the montane wet forest found in the north. Waimea Canyon SP is located at a lower elevation and is subject to a drier climate. This park is marked by mesic forest.

## III. PROJECT PURPOSE AND NEED

The purpose of this project is to enhance park visitors' experience and their safety. Currently, the trail system can be difficult to find and in some sections it requires hikers to park on the shoulder of Kōke`e Road, walk for relatively long distances along the much traveled Kōke`e Road or share muddy, over-used dirt roads with 4-wheel drive vehicles. By developing three key parking areas along Kōke`e Road and bringing the trailheads to these sites (please see Appendix A, Figure 1), the Department of Land and Natural Resources, Division of State Parks, in partnership with Hui o Laka, seeks to make it safer by removing hikers from the roadway and removing from the backcountry roads drivers who are unfamiliar with the roads and road conditions. Furthermore, this project effectively separates users, leaving backcountry access for hunters and gatherers while visitors and other recreational users will access the trail from the Kōke`e Road corridor. Minimized back road vehicle use will also reduce costly back road maintenance.

The Canyon Trail is the most popular trail in the parks with over 100 visitors per day hiking this trail. Presently, the trail begins at the end of the Cliff Road and follows the rim of the canyon for a distance of 2.7 miles. The dirt roads leading to the present trailhead are four-wheel drive roads. Therefore, almost all hikers park along Kōke`e Road and then walk down Halemanu Road for an approximate distance of 0.5 miles. State parks surveys indicate tourists have stated that walking down Halemanu road to access Canyon Trail detracts from their overall visitor experience. It also presents the potential for vehicular/pedestrian accidents.

Several trails are accessed from the area of the Kōke`e Discovery Center, including Water Tank Trail, Berry Flat Trail, and Pu`u ka `Ōhelo Trail. There is a very small parking area alongside, however most hikers park at the Kōke`e Campground parking lot and access these trails by walking from the meadow and along Kōke`e Road for approximately .25 mile. Some miss the trailhead and enter the grounds of the Kōke`e Discovery Center, a Department of Education facility.

Two large-scale public events, sponsored annually by Hui o Laka with funding from the Hawai`i Tourism Authority (HTA) and the County of Kaua`i, regularly attract large crowds to Kanaloahuluhulu

Meadow, the public core of Waimea Canyon and Kōke'e State Parks. Parking is insufficient, and even with professional parking assistance and several enforcement officers and security guards, it gets out of hand.

#### IV. PROJECT DESCRIPTION

##### Canyon Trailhead, Waimea Canyon State Park

The proposed Canyon Trailhead includes a new parking area adjacent to the existing paved parking lot at Pu'u Hinahina Lookout and the extension of Canyon Trail to tie in with the proposed parking area (Appendix A, Figure 2). The existing parking lot can accommodate 18 cars in an area approximately 105 feet x 90 feet. The new parking area will be 9,500 sq ft and additional space for 23 more cars will be provided for hikers.

The site will be cleared, leveled and prepped. The planned parking area will be of raised bed construction, with the parking bed constructed of gravel, hauled in, spread to a level of 3 to 4 inches, and rolled.

Several of the larger trees currently occupying the site, including one healthy and three unhealthy, mature native koa (*Acacia koa*) trees, and one non-native silk oak (*Grevillea robusta*), will be removed. Small tree and shrub species to be removed include strawberry guava (*Psidium cattleianum*), 'a'ali'i (*Dodonaea viscosa*), and naupaka (*Scaevola procera*) (Appendix B).

Parking area construction will include the removal of non-native species around the immediate perimeter of the parking area and replanting with native plant materials that are similar in character and appearance to existing native vegetation in the surrounding area.

The proposed action involves developing the connecting trail from the new parking area to the existing Canyon Trail. The approximately 230 foot long trail extension site will be on flat or gently sloping terrain requiring little more than a brushing of the trail corridor. The trail will be constructed by clearing the brush and strawberry guava along the new trail route, removing the roots and stumps of all bushes and saplings, and grading the trail route into a smooth, level treadway. The tread will be cut to a width of 4 to 6 ft., or at least a minimum of 3 ft., between any large trees. An 8 ft. high clearance will be established by trimming branches rather than cutting trees whenever possible. Short-lived systemic herbicides may sometimes be used as a maintenance tool for the trail. Label use of Roundup (Isopropyl amine salt of Glyphosphate) and Garlon 3A (Triclopyr) on cut stumps may be employed. Their use prevents the regeneration of non-native woody shrubs in places where proper footing is necessary.

Brushing of vegetation, clearing of debris, removal of trash, repair of trail structures, and backfilling of the parking area will comprise the routine maintenance program.

##### Water Tank Trailhead, Kōke'e State Park

The proposed Water Tank Trailhead includes an expansion of the existing parking area with an extension connecting the trail to the parking (Appendix A, Figure 3). One section of the parking area is 45 x 100 ft. and the other section is 50 x 65 ft., covering approximately 7800 sq. ft. Approximately 7 cars

can currently be accommodated with space for an additional 16 cars to be provided by this project. The open and relatively level site will be cleared, leveled and prepped. Gravel will be hauled in, spread to a level of 3 to 4 inches, and rolled.

There are few large trees to remove at this site, all of them non-native and includes the firetree (*Morella faye*), and strawberry guava. The larger woody vegetation will be chipped and spread out into the forest and/or used in other areas within the park to breakdown and recycle nutrients. Small native tree and shrub species to be removed include 'a'ali'i (*Dodonaea viscosa*), naupaka (*Scaevola procera*), and manono (*Hedyotis terminalis*) (Appendix B-2).

Parking area construction will include the removal of non-native species around the perimeter of the parking area and replanting with native plant materials similar in character and appearance to existing native vegetation in the surrounding area. The seed sources will come from an area nearby.

The second phase of the proposed action involves developing the connecting trail from the new parking area to the existing Water Tank Trail. The 500 foot long Water Tank Trail extension site will be on flat or gently sloping terrain requiring little more than a brushing of the trail corridor because of the density of young guava trees, which must be removed. The trail will be constructed by clearing trees and brush along the new trail route, removing the roots and stumps of all bushes and saplings, grading the trail route into a smooth, level treadway, installing water bars where needed, cutting and clearing blowdowns along the trail route, and the removal of any hazardous trees. The tread will be cut to a width of 4 to 6 ft., or at least a minimum of 3 ft., between any large trees. If necessary, the trail will be rerouted around the large trees, and the removal of woody roots and stumps will be done only where doing so will not destabilize the ground surrounding the trail bed or the trail itself. An 8 ft. high clearance will be established by trimming branches rather than cutting trees whenever possible. Short-lived systemic herbicides may sometimes be used as a maintenance tool for the trail. Label use of Roundup (Isopropyl amine salt of Glyphosphate) and Garlon 3A (Triclopyr) on cut stumps may be employed. Their use prevents the regeneration of non-native woody shrubs in places where proper footing is necessary.

Presently, one plant of the endangered species, Na'ena'e or *Dubautia latifolia*, is found adjacent to the start of the Water Tank Trail. After completion of the project the existing trailhead will be closed and the new trail entrance will be rerouted approximately 70 ft. away from the endangered species.

Brushing of vegetation, clearing of debris, removal of trash, repair of trail structures, and backfilling of the parking area will comprise the routine maintenance program.

#### **Kanaloahuluhulu Overflow Parking Area, Kōke'e State Park**

The proposed Kanaloahuluhulu Overflow Parking, depicted in Appendix Figure 4, consists of a parking area 65 x 175 feet, for a total of 11,375 sq.ft. The existing parking area can accommodate 35 cars. Upon completion of this project, no additional space will be provided. The area to be improved becomes muddy when rains are moderate to heavy and by filling in the low spots with gravel, this situation is not expected to occur. The parking area will be accessed from Kōke'e Road at the northern end as well as the southern end of the parking area.

The site will be leveled and prepped. The planned parking area will be of raised bed construction, with

the parking bed constructed of gravel, hauled in and spread to a level of 3 to 4 inches, and rolled.

Parking area construction will include the planting of native plants alongside Kōke`e Road with plant materials similar in character and appearance to existing vegetation in the surrounding area. The seed source will come from an area nearby. Weed control and backfilling of the parking area will comprise the routine maintenance program.

#### Timing & Costs

Parking area clearing and construction is anticipated to take approximately three months once all required permits have been obtained. Trail improvements are planned after parking area construction is complete and will take approximately two months.

The cost estimates for the project are as follows:

Item	Cost
Labor Costs	\$35,000
Contracted Services	\$47,000
Administrative Costs	\$10,000
<i>Subtotal Costs:</i>	\$92,000
In-Kind Goods & Services	\$30,000
<b>Total Project Costs</b>	<b>\$122,000</b>

Funding for this project includes \$92,000 from the HTA Product Development Fund. The help of volunteers will be sought to complete the project.

## V. SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT

### Location and Physical Characteristics of the General Area

The project area for the Canyon Trailhead parking is situated in the northern end of Waimea Canyon State Park on the northwestern rim of Waimea Canyon at 3600 feet elevation just below mm 14 on Kōke`e Road. It is situated within TMK 1-4-01:2 and 1-4-02:93. The proposed Canyon Trailhead parking area will be accessed through, and located directly east of, the Pu`u Hinahina Lookout parking lot. The Pu`u Hinahina Lookout is a popular lookout with spectacular views of the Waimea Canyon. The paved lookout parking lot can accommodate 18 cars and vans. The restroom has four water closets on the women's side and one commode and one urinal on the men's side.

The project areas for the Water Tank Trailhead and the Kanaloahuluhulu Overflow Parking are situated in the central area of Kōke`e State Park just northeast of Kanaloahuluhulu Meadow at the entrance lane to the Kōke`e Discovery Center, TMK: 1-4-01: 13. At 3760 feet in elevation, the sites are surrounded by wooded, hilly terrain and the area is weedy and highly disturbed.

### Land Ownership

The project areas are ceded lands. Such lands were set aside by executive orders in 1952 for park purposes. Executive Order 1509, dated May 15, 1952, set-aside lands in Kōke`e as a Territorial Park.

The Pu`u Hinahina canyon rim area of Waimea Canyon State Park was set aside by Executive Order 2197 as an addition to Waimea Canyon State Park on April 29, 1965. The parks fall under the jurisdiction of the Division of State Parks, Department of Land and Natural Resources.

#### Land Classification and Zoning

Kōke`e and Waimea Canyon State Parks are classified Conservation lands by the State Land Use Commission and are within the Resource Subzone. The objective of this subzone is to develop, with proper management, areas to ensure sustained use of the natural resources of those areas, such lands necessary for providing future parkland and lands presently used for state parks. The proposed actions are allowable in the Conservation District Resource Subzone according to the Hawai'i Administrative Rules (HAR) Chapter 13-5, Subchapter 3, §13-5-22 Identified Land Uses and Required Permits, P-6 Public Purpose Uses which allows for land uses undertaken by the State of Hawai'i to fulfill a mandated governmental function for public benefit in accordance with public policy and the purpose of the conservation district, such as recreational facilities.

#### Climate and Topography

The Canyon Trailhead site is located on the northwestern rim of Waimea Canyon at an elevation of 3600 ft. The annual rainfall is 60 inches. The site is located to the south of Kumuwela Ridge that marks the separation between the Alaka'i high plateau and the Waimea cliff and valley formation.

The Water Tank Trailhead and the Kanaloahuluhulu Overflow Parking site are located within Kōke`e SP, at the western end of the Alaka'i high plateau and the base of Kaunuohua Ridge. At 3600 feet above sea level, the climate in the area is generally cool and sunny to misty most of the time. Annual rainfall in the area is about 77 inches and temperatures range from approximately 45 to 80 degrees F.

#### Soils

The soil type present at the Canyon Trailhead is listed in the soil survey as KSKE, a Kōke`e silty clay loam. This Pa'aiki loam is formed from material weathered from igneous rock, volcanic ash, and ejected magma. The Overflow Parking Area is soil type KSKF and the Water Tank Trailhead contains both KSKE and KSKF. They are both part of the Kōke`e silty clay loam series, well drained and developed in material weathered from igneous rock mixed with volcanic ash. KSKE has a 0 to 35 percent slope, permeability is moderately rapid. Runoff is medium, and the erosion hazard is slight to moderate. KSKF – Kōke`e silty clay loam has a 25 to 70 percent slope, runoff is rapid and erosion hazard is severe.

#### Flora and Fauna

The natural vegetation of the area is of montane mesic forest dominated by *koa* or by *'ōhi'a lehua*. However the project sites are located within areas severely disturbed, of low-diversity, and containing predominately non-native plants. No threatened or endangered native or endemic species of flora were seen during the botanical survey (Appendix B), except for one plant of *Na'ena'e* found along the section of the trail that will be closed.

A variety of native and non-native birds occur throughout the area (Appendix C). Of the native Hawaiian species, the Pueo, 'Amakihi, 'Anianiau, 'Akekeke, 'Elepaio, 'I'iwi, and 'Apapane are resident in the general area, and intermittently the Nēnē are seen. The Pacific Golden Plover (*Pluvialis fulva*), a winter visitor, is also found in the area.

#### Natural Hazards

The Flood Insurance Rate Map indicates that the project sites are located within the Zone "X" boundary. Areas within the Zone "X" boundary are determined to be outside the 500-year flood plain. According to the Uniform Building Code, the island of Kaua'i is classified as a Seismic Zone 1. Therefore, all new structures will be designed and constructed to resist stresses produced by lateral forces, which apply to Zone 1. Zone 1 is barely able to generate damage, causing potential seismological events to have no relevance to parking lots (Gary Chock, structural engineer with Martin and Chock, June 10, 2005).

#### Archaeological Features

No significant historic or archaeological sites are located on or near the project sites (Appendix D).

#### Cultural Resources

The Cultural Impact Assessment for Kōke'e and Waimea Canyon State Parks recently completed by Rodney Chiogioji for R.M. Towill Corporation and published in the Kōke'e and Waimea Canyon State Parks Draft Master Plan (December 2004), gathers information from historic documentation, archaeological research, and kama'aina interviews. The report presents significant details relating to traditional cultural resources, practices and beliefs within the State Parks project area before the 20<sup>th</sup> century, and provides evidence of cultural practices that are ongoing. Here it is briefly summarized and referenced specifically to this project. The interviews are summarized in Appendix E.

Five historic properties related to Hawaiian culture – heiau and habitation sites – have been recorded during archaeological investigations of the Kōke'e and Waimea Canyon SP project area. As noted in the Archaeological Assessment (Appendix D) there have been no systematic archaeological investigations conducted within the parks, and the five sites do not represent a comprehensive inventory of historic properties related to traditional Hawaiian culture that may be extant in Kōke'e and Waimea Canyon State Parks. However, minimally, the sites indicate that the area was utilized by the Hawaiians for ceremonial, habitation (whether permanent or temporary) and work activity purposes.

According to regional lore passed down to chroniclers of the 19<sup>th</sup> and 20<sup>th</sup> centuries, a village was once located at Pu'u ka Pele. In the late 1920s an archaeological survey recorded remnants of house sites "around the crater of Pu'u ka Pele" and toward the sea from Pu'u ka Pele. At elevations above Pu'u ka Pele, any habitation was more likely temporary and seasonal, related to the needs of canoe builders active in the area.

The major traditional trail system that traversed the parks area accommodated travel across Kaua'i Island, especially during months when travel around the Nā Pali coast by canoe was dangerous. One branch of the trail went up over Ka-unu-o-Hua Ridge and down into Kalalau Valley, the other crossed

the Alaka'i Swamp and down into Wainiha Valley. The present day trail system includes routes that were established during the 20<sup>th</sup> century by workers during construction of ditches for sugar plantations at Waimea and Kekaha, by Civilian Conservation Corps (CCC) workers during the 1930's and 40's, by cabin lessees, and by parks workers for recreational purposes.

The mauka land of Waimea ahupua`a that includes the present Kōke`e SP was the domain of Hawaiian catchers or hunters whose task was to capture birds for both food and feathers. According to Frederick Wichman, the birdcatchers only operated three months of the year leaving the bird population time to rebuild itself. Rarest on all of the islands was the 'ō'ō'ā'ā (*Moho braccatus*) which carried only two yellow feathers under each wing. It was last heard and seen before Iniki in 1992. The `amakihi (*Loxops v. wilsoni*) provided the greenish yellow feathers characteristic of Kaua'i feather work. Red and black came from `apapane (*Himatione sanguinea*). The `i'iwi (*Vestaria coccinea*) is a bright orange-red bird with black wings and tail. Only three species of endemic birds survive in any number in these forests.

Pigs had been brought to the Hawaiian Islands by the Polynesians and were raised in captivity. European pigs were introduced after 1778, interbred with the Polynesian pigs and have gone wild. Rain forest and mountain areas are habitats of the feral pigs, which are hunted there.

Additional ongoing practices within the region include hunting of goat, black-tailed deer, and a variety of game birds. However, most are 20<sup>th</sup> century introductions (e.g. deer were introduced in 1961) and do not represent traditional Hawaiian hunting game.

In traditional Hawaiian times, mountain habitats like the present Kōke`e and Waimea Canyon SP were sources of a variety of plants that were used for ceremonial, medicinal or adornment purposes. However, little is known as to what was specifically gathered from the Kōke'e area.

As noted by several of the *kama'aina* interviewees, Kōke`e continues to be accessed by gatherers of maile and mokihana used for ceremonial purposes, including graduations and hula performances. Lei makers also continue to pick palapalai ferns, 'ōhi'a lehua, 'a'ali'i, and pūkiawe for the haku lei. Crafters today also use pines, banana poka vines, and uki seeds for wreaths, baskets and flower arrangements. Still valuable today are the salvaged woods such as koa, kauila (*Alphitonia ponderosa*), and 'ōhi'a lehua, as well as other woods which are collected from specific areas for firewood.

Gatherers still value many foods of the forest such as the ho'io ferns, Kōke`e plums, and wild avocados. Hunting for food continues with pig, goat, and deer. Trout is fished from the Pu'u Lua Reservoir, Kōke`e Ditch and streams.

As noted in Appendix D, five historic properties related to Hawaiian culture – heiau and habitation sites – have been recorded during archaeological investigations of the parks. However, minimally the sites indicate that the area was utilized by the Hawaiians for ceremonial, habitation (whether permanent or temporary), and work activity purposes. In a broader sense, the entire Kōke'e and Waimea Canyon State Parks area may be considered a significant cultural site. As the Office of Hawaiian Affairs notes: "Kōke'e State Park is a wao akua area. It is rightfully the realm of the gods, and is literally a source of life for the whole island."

The ongoing cultural practices noted above all occur within the context of necessary conservation-based restrictions governing the use of publicly-held parks lands. Hunting and gathering practices

within the parks have had to adapt to the limits imposed by modern regulations. The proposed parking areas all lie within the safety zone of the parks where hunting is not allowed.

Furthermore, the proposed parking lots along Kōke'e Road represent only a fraction of the overall square footage of Kōke'e and Waimea Canyon State Parks (0.009%), and the proposed sites are, for the most part, highly disturbed and dominated by invasive weed species. Very few native plants are found at the sites. Therefore, the project should have no significant or adverse effect on the existing cultural practices associated with the parks. Given the nature and development limits of the proposed project, and with the exception of short-term construction period restrictions, the continued exercise of all traditional and customary native Hawaiian rights for access and gathering practices would not in any way be constrained, restricted, prohibited, or eliminated.

#### Public Utilities

No electricity and no telephone or cellular coverage is available at the sites. However, electric and telephone service does occur nearby. Potable water and toilets are available at Pu'u Hinahina Lookout but not at the other sites.

#### Sensitive Habitats

The site for the Water Tank trailhead is situated in an area designated as critical habitat by the FWS. Presently, one plant of the endangered species, Na'ena'e is found adjacent to the existing Water Tank Trail. After completion of the project this plant will be 150 ft. away from the trail.

## **VI. IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS AND ALTERNATIVES CONSIDERED**

### Major Impacts - Positive

The proposed Canyon Trailhead will be easier to locate and access. Adequate parking for the relatively large number of visitors attracted to the trail will be provided and allow for closure of the unsightly and uncontrolled parking areas along Kōke'e Road which have arisen in lieu of a proper parking area. From the new parking area, hikers will be able to immediately connect to Canyon Trail, thus precluding the current need to walk along Halemanu Road for half a mile before reaching the current trailhead. Restroom facilities and potable water will be available at the adjoining Pu'u Hinahina Lookout.

The proposed Water Tank Trailhead will be easier to locate and access. Adequate parking will be provided for visitors to use Water Tank Trail, Berry Flat Trail and the Pu'u ka 'Ōhelo Trail. Hikers will safely access the trails without crossing or walking for any distance along the heavily trafficked Kōke'e Road, and disturbance to the Kōke'e Discovery Center by hikers who missed the trailhead will be minimized. The rerouting of the trail will move the trail away from an endangered plant.

The Kanaloahuluhulu Overflow Parking Area for special events will allow the Queen Emalani and Banana Poka Festivals to continue to grow in popularity without the foreseen restriction due to the limited parking available.

### Major Impacts - Negative

The negative impacts resulting from this project will be slight. Although the three sites are predominately open or colonized by non-native species (approximately 85%) such as strawberry guava, a number of common native trees and shrubs like koa, sandalwood, and 'a`ali`i will need to be removed (Appendix B). Further, the construction of the parking areas will result in some disturbance to the site leading to potential soil erosion and/or leaving it open to further weed invasion. Clearing around Kōke`e Road would be a short term visual intrusion with the cars open to view from the road.

The concentration of parked vehicles away from secured facilities could result in an increase in the occasional car break-in, and the location for the Overflow Parking area will require the crossing of Kōke`e Road during busy festival times.

### Alternatives Considered

#### 1. Canyon Trailhead

**Alternative 1 – Status Quo - No New Trailhead:** This alternative was rejected for three reasons. Foremost is the unsafe mixing of pedestrian and motor vehicle traffic on Halemanu Road. Currently hikers walk down this dirt road to get to the Canyon Trailhead. The clayey soils of Halemanu Road become very slippery when wet and when making sudden stops, drivers lose control of their four-wheel drive vehicles. If a pedestrian was near one of those out-of-control vehicles, he or she could be run over. The second reason is that many hikers find the walk down the road unappealing. They prefer to be on the trail when they get out of their cars rather than walk 0.5 miles down Halemanu Road to get to the Canyon Trailhead. The third reason is that the informal parking area at the intersection of Kōke`e Road and Halemanu Road is uncontrolled and detracts from the "wilderness" experience of those driving through the forest.

**Alternative 2 - Locate Parking Area Elsewhere:** Another alternative, of locating the parking area in an area adjacent to State Highway 550, next to the current Pu`u Hinahina Lookout parking lot was considered and rejected. Although this alternative location is more disturbed and contains a lesser number of native trees and shrubs, it was not selected due to insufficient space for parking and greater slope. The relatively level area is too small and the land rises abruptly, requiring more movement of soil allowing for possible erosion and a more drastic alteration of the landscape.

**Alternative 3 – Use Existing Pu'u Hinahina Lookout Parking Area:** Utilization of the existing parking lot was considered, but rejected as visitors to Canyon Trail are now numbering 100 per day and we expect the numbers to increase. Most of the Lookout parking would be tied up by trail users, causing the loss of available parking for sightseers.

#### 2. Water Tank Trailhead

**Alternative 1 – Status Quo: No New Trailhead Parking Area/No New Trailhead:** Encouraging visitors to continue to park near the museum or at the Kōke`e campground, walk along Kōke`e Road, and up the drive into the Kōke`e Discovery Center was considered and rejected. To do nothing, hikers will continue to compete with visitors and campers for limited parking and walk alongside and cross State Road 550 at a dangerous bend in the road.

**Alternative 2 – Develop Parking Area at Existing Trailhead:** This alternative was rejected because it would adversely impact the Na'ena'e, an endangered plant, impinge on the Kōke'e Discovery Center, and increase road maintenance responsibilities.

### **3. Kanaloahuluhulu Overflow Parking**

**Alternative 1 – Status Quo: No Overflow Parking Area for Large Events:** To do nothing, the problem of grossly inadequate parking during large events will continue along with the potentially hazardous situation whereby visitors park illegally along Kōke'e Road. This is not the best solution to the current problem as the number of people attending these events is increasing.

**Alternative 2 – No New Overflow Parking Area, Shuttle Visitors from Existing Sites:** This alternative was rejected as there are no potentially large parking areas with an all weather road near to the site of the festivals. Currently, existing paved parking lots at scenic lookouts are used in conjunction with a shuttle to the festival, but these lots are grossly inadequate in size and result in lack of any available parking for visitors to the lookouts on those days.

**Alternative 3 – No New Overflow Parking Area, Relocate the Festival:** Relocation of the festival away from the meadow in Kōke'e was rejected because there are no other large open areas with proximity to public facilities within either Kōke'e SP or Waimea Canyon SP. Furthermore, the Emalani Festival is a commemorative event celebrating Queen Emalani's 1871 mountain trek through Kōke'e, with over 100 people and making several stops along her journey into the Alaka'i Swamp. Relocating the festival outside of the park would greatly diminish the significance of the event.

## **VII. PROPOSED MITIGATION MEASURES**

No strategies or techniques to reduce impacts can be considered absolutely effective. However, the choice of these three sites with predominately non-native vegetation and in already open areas, greatly minimizes the environmental impact. If left alone, the few remaining native trees, shrubs and grasses which can still be found at the site, would eventually be overcome by the rapidly encroaching invasive weed infestations of strawberry guava.

Although the disturbance of any forested area opens it up to further weed invasion, the areas surrounding the parking sites will be continually monitored to prevent new infestations from occurring and will be greatly improved by out planting native vegetation.

Potential erosion hazard created by clearing of the sites has already been minimized by the selection of relatively level areas.

The danger of vandalism and theft created by parking vehicles away from secured facilities will be lessened by making the parking areas visible from the highly trafficked Kōke'e Road. A partial screen of native vegetation planted between the area where the cars park and Kōke'e Road will serve the dual purpose of mitigating the visual intrusion created by the parked cars, while at the same time allow for adequate visibility from the road in order to discourage vandals and thieves.

The construction of the Kanaloahuluhulu Overflow Parking area on the far side of the road away from the meadow will require pedestrians to cross Kōke'e Road. However it will only be used for a few scheduled events each year and any potential danger will be minimized by permitted conditions that will require professional assistance to control the road crossing.

No impacts to historical sites or cultural practices are expected to result from the construction or use of the trailhead and the overflow parking area. If any historical sites or burials are encountered during construction, all work will immediately cease and the State Historic Preservation Division, will be consulted to determine the appropriate course of action.

### VIII. ANTICIPATED DETERMINATION

A Finding of No Significant Impact is anticipated for this project as no significant negative impacts to the environment are expected to result from construction and public use of the parking areas and trail improvements.

### IX. FINDINGS AND REASONS SUPPORTING EXPECTED DETERMINATION

The anticipated Finding of No Significant Impact is based on the evaluation of the project in relation to the following criteria identified in the Hawai'i Administrative Rules § 11-200-12.

*1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.*

The proposed sites for the trailhead and the overflow parking area were chosen primarily because of the lack of archeological and historical resources and because it is a highly disturbed site with few native species, none of which are threatened or endangered, creating relatively little disturbance of the natural resources of the area.

The proposed trailhead parking areas are not expected to impact the cultural resources of the area. No archaeological or historical sites are known to exist within the proposed parking areas, nor along any of the improved trails. Hunting is not allowed, and the sites are not used for the gathering of forest products such as maile, mokihana, and Kōke'e plums.

*2. Curtails the range of beneficial uses of the environment.*

The trailheads and overflow parking area are compatible with the surrounding land use plans and programs being implemented for the region. They will not curtail but rather expand the range of beneficial uses within the environment by increasing outdoor recreation opportunities in Kōke'e and Waimea Canyon State Parks. Appropriate public access to and the use of the area for hiking, photography, and gathering of forest products will be increased.

*3. Conflict with the state's long term environmental policies or goals and guidelines as expressed in Chapter 344, Hawai'i Revised Statutes.*

The environmental policy established in Chapter 344 of the Hawai'i Revised Statutes states that any projects in parklands must be in accordance with the state policy to conserve the

state's natural resources and to enhance the quality of life. All agencies must operate within the established guidelines to preserve and maintain scenic, historic, cultural, park and recreation areas, for public recreational, educational, and scientific uses and to promote open space in view of its natural beauty not only as a natural resource but as an ennobling, living environment for its people. The proposed trailhead and parking area are consistent with these guidelines, and only function to expand recreational activities without harm to the natural environment.

4. *Substantially affects the economic or social welfare of the community or state.*

The proposed project is not expected to substantially affect the economic or social welfare of the community or State. The proposed project is designed to enhance surrounding land use patterns, will not negatively or significantly alter existing residential areas, and will not stimulate unplanned population growth or distribution. Funds for implementation are coming from the Hawai'i Tourism Authority's Product Development Fund, the Division of State Parks, and volunteer labor. Social impacts are expected to be positive as the project's development is in response to public requests for improved hiking opportunities and it will improve the park visitor's experience by making trailheads more visible and readily accessible. Possible future use of the parking area and trail by commercial eco tour operators can result in some economic benefit to the State and to the community as a whole.

5. *Substantially affects public health.*

The proposed project, by making the trailheads more visible and readily accessible, will improve the population's general health by providing residents and visitors with an improved opportunity to hike. The activities associated with hiking these trails works to dramatically increase one's health and well-being through exercise and enjoyment of the natural wildland beauty of Kōke'e and Waimea Canyon State Parks.

6. *Involve substantial secondary impacts, such as population changes or effects on public facilities.*

The proposed project in itself will not generate new population growth. The public restrooms present at Pu'u Hinahina Lookout will experience increased daily use. However, this will be mitigated by the planned upgrade of the sewage system. The draft Kōke'e and Waimea Canyon State Parks Master Plan calls for the relocation of the Pu'u Hinahina Lookout and to convert this facility into the trailhead for the Canyon Trail.

7. *Involves a substantial degradation of environmental quality.*

The trailhead and the parking area will be built on sites that are relatively level and that are severely impacted by invasive weeds. The environmental quality of the site will be improved by the removal of invasive weeds surrounding the parking area and the subsequent planting of native tree and shrub species. The site selection in relatively level areas means that minimal groundwork will be needed, thereby greatly reducing the potential for erosion.

The overall design of the project will complement the general use of the area. The Kanaloahuluhulu Overflow Parking, the Canyon Trailhead parking area, the Water Tank Trailhead parking area, and the associated trail improvements will have a small footprint and are not expected to result in a substantial degradation of environmental quality.

8. *Is individually limited, but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.*

Construction and use of the planned trailheads, the trail improvements and the overflow parking areas are not anticipated to have a cumulative impact on the environment, nor is it a commitment for larger actions. The purpose of this project is to improve the management of the uses for public safety, resource protection, and enhancement of the park experience.

9. *Substantially affects a rare, threatened or endangered species or its habitat.*

There is only one known endangered species in or adjoining the project areas. The impact to this endangered plant, however, is expected to be positive since the trail will be rerouted away from it.

The Water Tank trailhead is situated in a critical habitat zone designated by the U.S. Fish and Wildlife Service. This project is not expected to significantly affect the critical habitat because it is a highly disturbed area, it is small in size (8,500 square feet), and it is located alongside Kōke`e Road. This project is not funded by Federal monies and does not require Federal permits.

10. *Detrimentially affects air or water quality or ambient noise levels.*

The trailheads and overflow parking area are not expected to detrimentally affect air or water quality. The project will enhance existing uses rather than increase the usage. In addition, the project sites are not near flow or standing water bodies. The nearest stream is 400 feet away.

11. *Affect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.*

The project areas are not in environmentally sensitive areas other than critical habitat listing. However, these sites are next to Kōke`e Road, at the fringe of critical habitat and are severely degraded by invasive weeds.

12. *Substantially affects scenic vistas or view planes identified in county or state plans or studies.*

According to the Kaua`i General Plan issued by the County of Kaua`i Planning Department, April 2000, Kōke`e and Waimea Canyon State Parks are designated as containing important landforms that have ecological, recreational, cultural and scenic value. The proposed changes in this project are compatible with the General Plan policy that states that the development of public facilities must preserve scenic

resources and public views by maintaining a high degree of intactness or vividness and the scenic qualities of mountains, hills, and other elevated landforms.

Although the proposed parking areas adjoining Kōke`e Road will be visible from the roadway, this will be mitigated by the planting of a vegetative screen of native plants between the roadway and the parking areas. The sites were selected for their location within wooded areas, therefore, no scenic views will be obstructed.

*13. Requires substantial energy consumption.*

Construction of the proposed parking areas and trail improvements will not require substantial energy consumption. The chipper, chain saws, grader, roller, and gravel spreader require an acceptable level of energy consumption. After completion of construction, there will be minimal demand for energy use, limited to periodic maintenance efforts with weed eaters and chainsaws for vegetation maintenance and a dump truck, skid steer, and backhoe for backfilling the parking areas.

**X. LIST OF PERMITS REQUIRED**

A Conservation District Use permit is required. A grading permit will be obtained from the County of Kaua'i Department of Design and Permitting.

**XI. ENVIRONMENTAL ASSESSMENT PREPARATION INFORMATION**

This Environmental Assessment was prepared by staff of Hui o Laka, P.O. Box 100, Kekaha, HI 96752

**XII. LIST OF APPENDICES**

Appendix A	Maps of Project Areas and Proposed Trail Routing
Appendix B	Checklist of Vascular Plants
Appendix C	Avifauna Presence at Three Sites for EA
Appendix D	Archeological Assessment
Appendix E	Cultural Resources Assessment
Appendix F	Comments Received by Letter and Email on DEA and Responses Sent

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***APPENDICES***

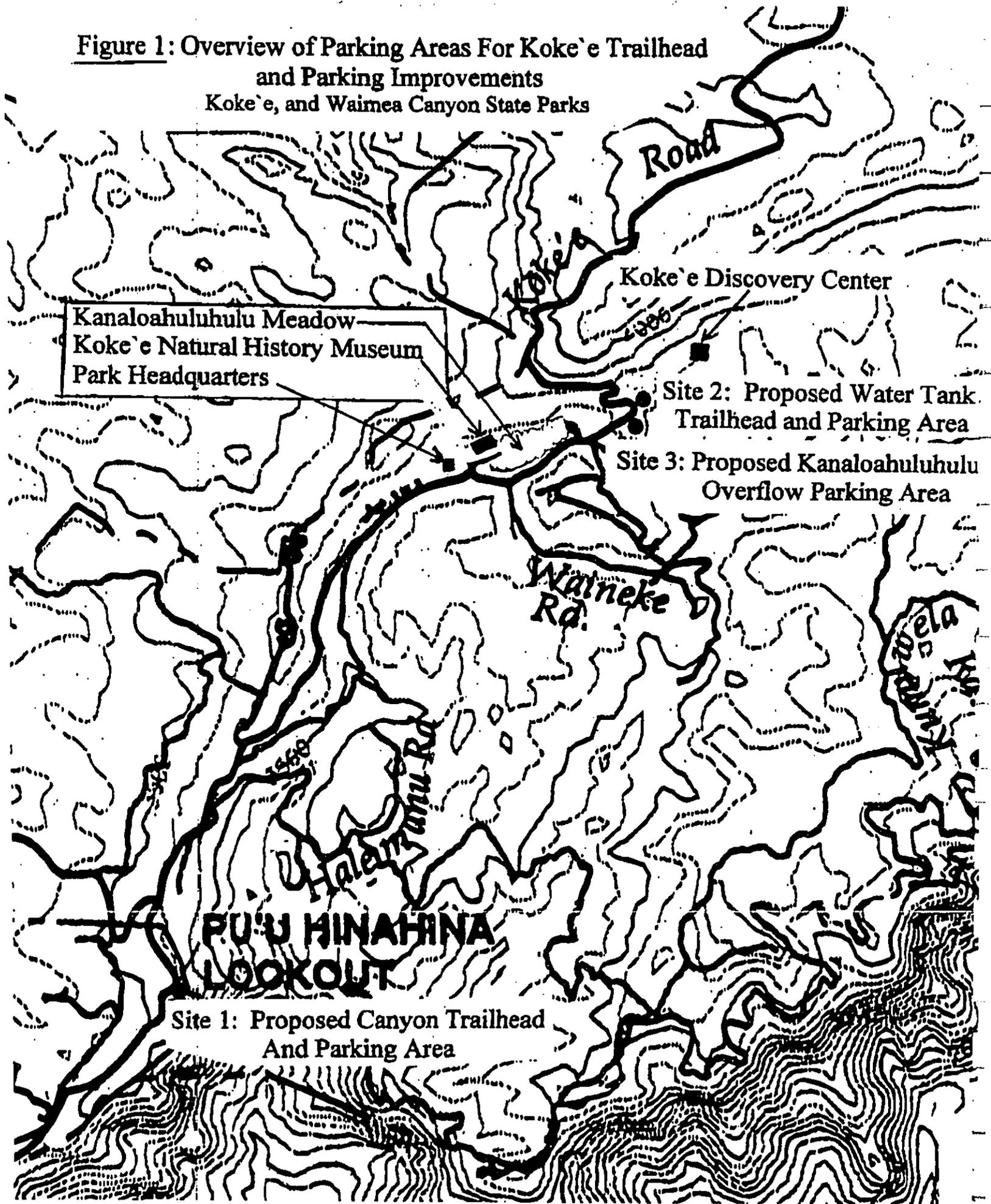
***Kōke'e Trailhead and Parking Improvements  
Final Environmental Assessment***

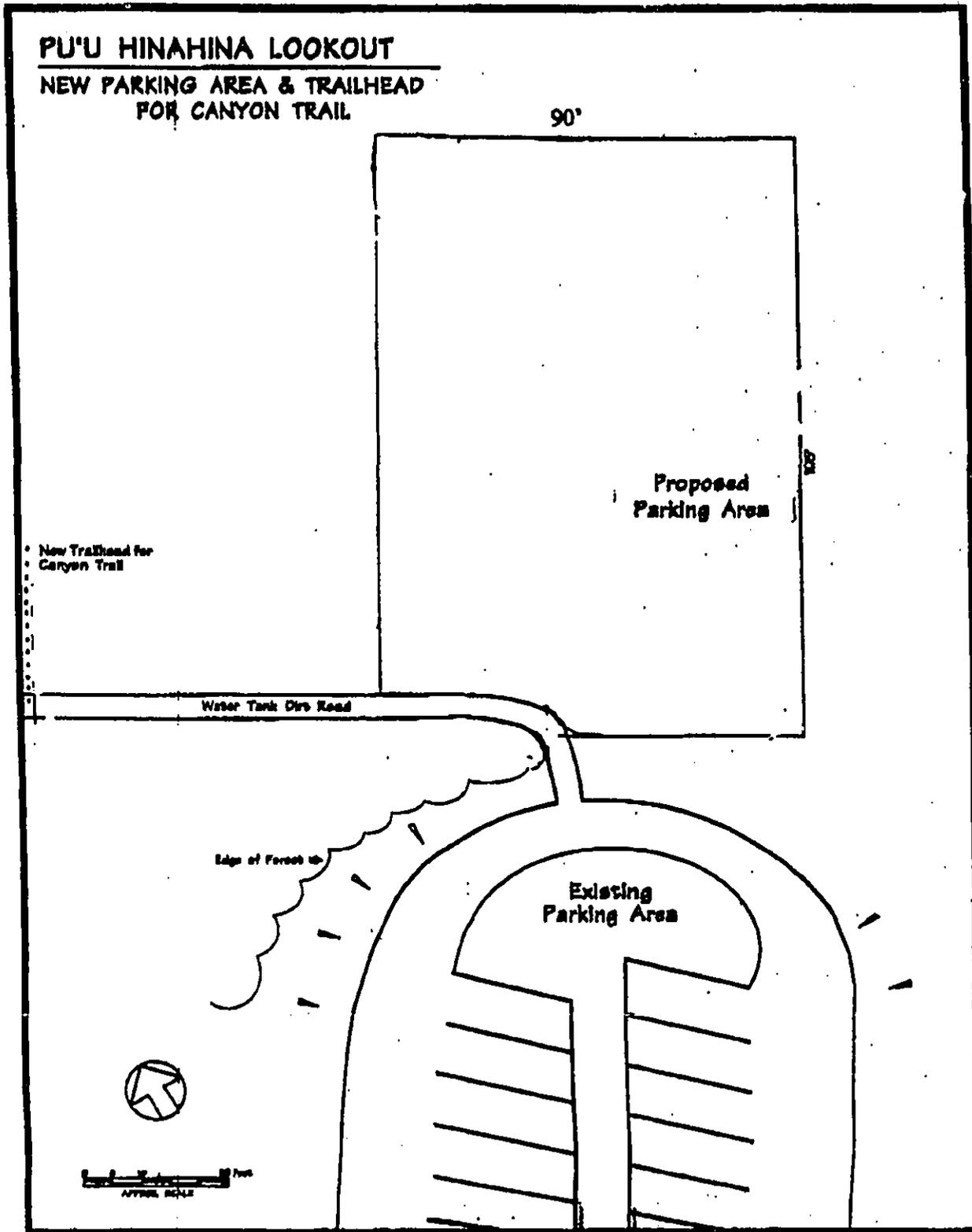
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***Kōke'e Trailhead and Parking Improvements  
Final Environmental Assessment***

***Appendix A  
Maps of Project Areas and Proposed Trail Routing***

**Figure 1: Overview of Parking Areas For Koke'e Trailhead and Parking Improvements**  
Koke'e, and Waimea Canyon State Parks





**Figure 2: Proposed Canyon Trailhead  
 And New Parking Area At Pu'u Hinahina Lookout  
 Waimea Canyon State Park, Kaua'i**

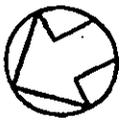
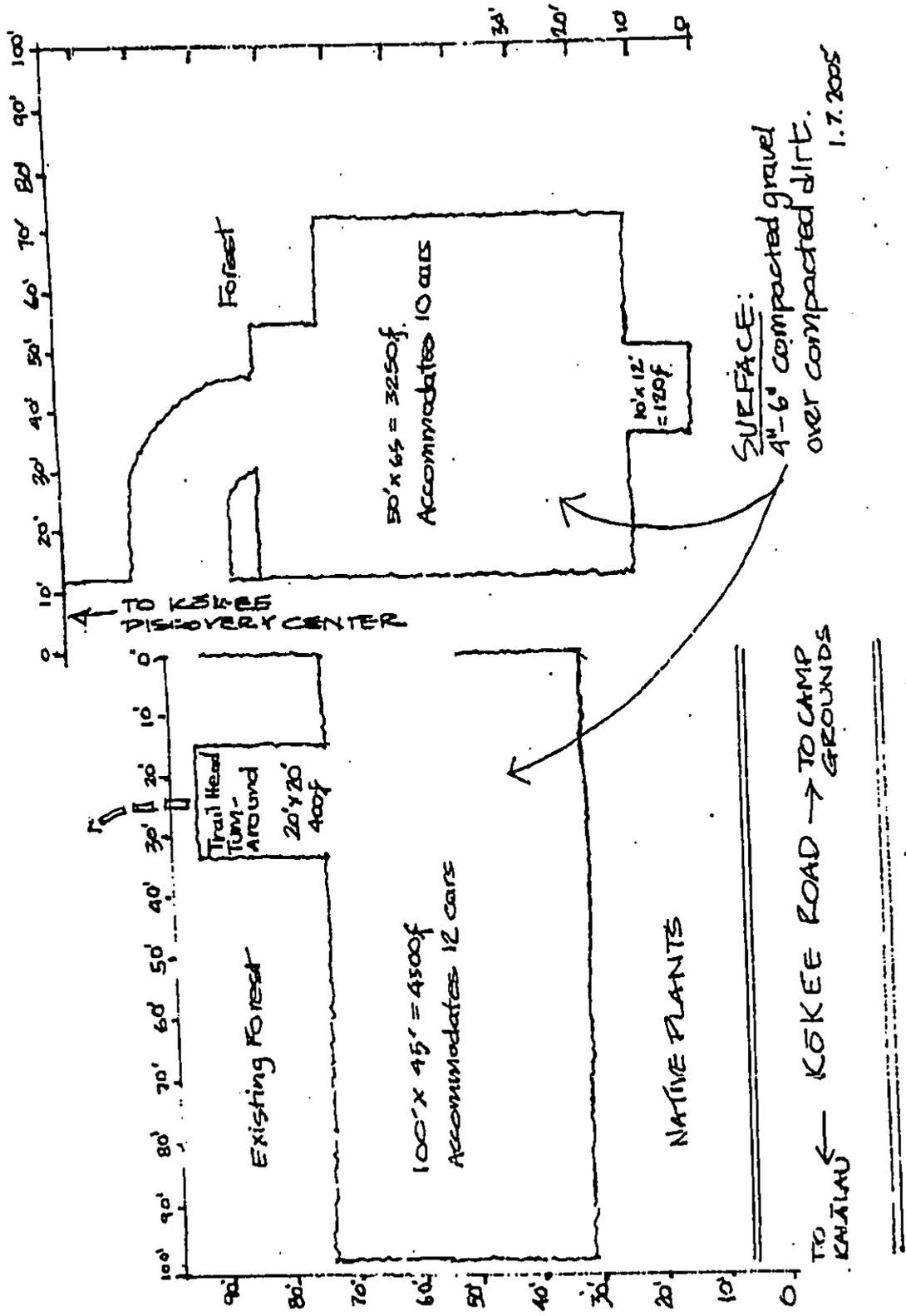
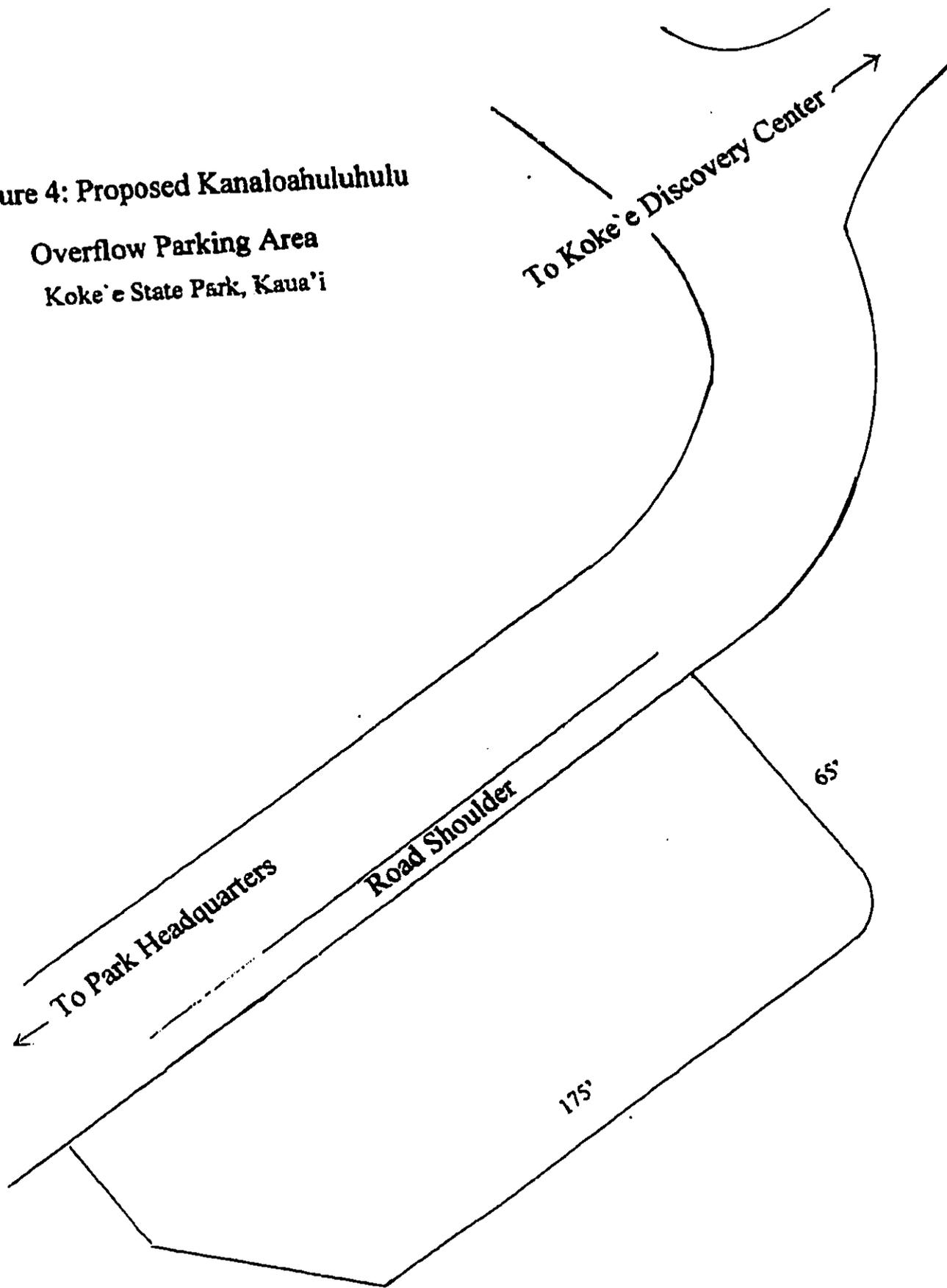


Figure 3: Proposed Watertank Trailhead and Parking Area  
Koke'e State Park, Kaua'i

**Figure 4: Proposed Kanaloahuluhulu  
Overflow Parking Area  
Koke'e State Park, Kaua'i**



*Kōke'e Trailhead and Parking Improvements  
Final Environmental Assessment*

*Appendix B  
Checklist of Vascular Plants*

**Canyon Trailhead Parking Area**  
**Checklist of Vascular Plants**  
**3600 ft. elev.**  
**August 2004**

K. R. Wood, [kenwood@pelea.org](mailto:kenwood@pelea.org)

[Note: Names for flowering plants follow W. L. Wagner et al. 1990. Names for pteridophytes follow D. Palmer 2002] No Federally Listed plants were observed at this site. All plants represent common species including 1 Polynesian introduction, 1 cultivated, 31 naturalized, 5 indigenous, and 7 endemic species.

**Symbols:**      end=Endemic  
                  ind=Indigenous  
                  nat=Naturalized  
                  cult=Cultivated  
                  poly=Polynesian

Checklist reflects the following days of research: K. R. Wood 20—21 Aug 2004;

**Angiosperms-Dicots**

**Asteraceae**

- Cirsium vulgare* (Savi) Ten. (nat )
- Conyza bonariensis* (L.) Cronq. (nat )
- Hypochoeris radicata* L. (nat )

**Epacridaceae**

- Styphelia tameiameia* (Cham. & Schlechtend.) F.v. Muell. (ind )

**Euphorbiaceae**

- Chamaesyce hirta* (L.) Millsp. (nat )
- Phyllanthus tenellus* Roxb. (nat )

**Fabaceae**

- Acacia koa* A. Gray (end )

**Hydrangeaceae**

- Hydrangea* sp. (cult)

**Lamiaceae**

- Hyptis pectinata* (L.) Poit. (nat )

**Lauraceae**

- Persea americana* Mill. (nat )

Myricaceae

*Myrica faya* Aiton (nat )

Myrtaceae

*Metrosideros polymorpha* Gaud. var. *glaberrima* (H. Lev.) St. John (end )

*Psidium cattleianum* Sabine (nat )

Oxalidaceae

*Oxalis corniculata* L. (ind )

Passifloraceae

*Passiflora edulis* Sims (nat )

Plantaginaceae

*Plantago lanceolata* L. (nat )

*Plantago major* L. (nat )

Proteaceae

*Grevillea robusta* A. Cunn. ex R. Br. (nat )

Rosaceae

*Eriobotrya japonica* (Thunb.) Lindl. (nat )

*Rubus argutus* Link (nat )

Rubiaceae

*Coprosma waimeae* Wawra (end)

Santalaceae

*Santalum freycinetianum* Gaud. var. *pyrularium* (A. Gray) Stemmermann (end)

Sapindaceae

*Dodonaea viscosa* Jacq. (ind )

Thymelaeaceae

*Wikstroemia furcata* (Hillebr.) Rock (end)

Verbenaceae

*Stachytarpheta jamaicensis* (L.) Vahl (nat )

Angiosperms--Monocots

Araceae

*Alocasia macrorrhizos* (L.) G. Don (pol )

Cyperaceae

*Carex meyenii* Nees (ind )

*Gahnia beecheyi* H. Mann (end )

Liliaceae

*Dianella sandwicensis* Hook. & Arnott (ind )

Poaceae

*Andropogon virginicus* L. (nat )  
*Axonopus fissifolius* (Raddi) Kuhl. (nat )  
*Cynodon dactylon* (L.) Pers. (nat )  
*Dactylis glomerata* L. (nat )  
*Ehrharta stipoides* Labill. (nat )  
*Eleusine indica* (L.) Gaertn. (nat )  
*Eragrostis pectinacea* (Michx.) Nees (nat )  
*Eragrostis variabilis* (Gaud.) Steud. (end )  
*Holcus lanatus* L. (nat )  
*Paspalum dilatatum* Poir. (nat )  
*Paspalum urvillei* Steud. (nat )  
*Pennisetum clandestinum* Chiov. (nat )  
*Setaria verticillata* (L.) P. Beauv. (nat )  
*Sporobolus indicus* (L.) R. Br. (nat )  
*Stenotaphrum secundatum* (Walter) Kuntze (nat )

Zingiberaceae

*Hedychium flavescens* N. Carey ex Roscoe (nat )

**Water-Tank Trailhead Parking and Connecting Trail**  
**Checklist of Vascular Plants**  
**3770 ft. elev.**  
**August 2004**

K. R. Wood, [kenwood@pelea.org](mailto:kenwood@pelea.org)

[Note: Names for flowering plants follow W. L. Wagner et al. 1990. Names for pteridophytes follow D. Palmer 2002] No Federally Listed plants were observed at this site. All plants represent common species including 1 cultivated, 21 naturalized, 10 indigenous, and 23 endemic species.

**Symbols:** end=Endemic  
ind=Indigenous  
nat=Naturalized  
cult=Cultivated

Checklist reflects the following days of research: K. R. Wood 20—21 Aug 2004

Gymnosperms

Cupressaceae

*Cupressus macrocarpa* Hartweg ex Gordon (cult)

**Angiosperms-Dicots**

**Apocynaceae**

*Alyxia oliviformis* Gaud. (end )

**Asteraceae**

*Erigeron karvinskianus* DC (nat )

*Hypochoeris radicata* L. (nat )

**Caprifoliaceae**

*Lonicera japonica* Thunb. (nat )

**Epacridaceae**

*Stryphelia tameiameia* (Cham. & Schlechtend.) F.v. Muell. (ind )

**Euphorbiaceae**

*Antidesma platyphyllum* H. Mann var. *hillebrandii* Pax & K. Hoffm. (end )

**Goodeniaceae**

*Scaevola gaudichaudiana* Cham. (end )

**Lauraceae**

*Cryptocarya mannii* Hillebr. (end)

**Myricaceae**

*Myrica faya* Aiton (nat )

**Myrsinaceae**

*Myrsine alyxifolia* Hosaka (end)

*Myrsine lanaiensis* Hillebr. (end )

**Myrtaceae**

*Metrosideros polymorpha* Gaud. var. *glaberrima* (H. Lev.) St. John (end )

*Psidium cattleianum* Sabine (nat )

**Oleaceae**

*Nestegis sandwicensis* (A. Gray) Degener, I. Degener & L. Johnson (end )

**Passifloraceae**

*Passiflora ligularis* Juss. (nat )

**Plantaginaceae**

*Plantago lanceolata* L. (nat )

**Rosaceae**

*Cotoneaster pannosa* Franch. (nat )

*Fragaria vesca* L. (nat )

*Rubus argutus* Link (nat )

**Rubiaceae**

*Coprosma kauensis* (A. Gray) A. Heller (end)

*Coprosma waimeae* Wawra (end)  
*Hedyotis terminalis* (Hook. & Arnott) W. L. Wagner & Herbst (end )  
*Psychotria greenwelliae* Fosb. (end)  
*Psychotria mariniana* (Cham. & Schlechtend.) Fosb. (end )

Santalaceae  
*Santalum freycinetianum* Gaud. var. *pyrularium* (A. Gray) Stemmermann (end)

Sapindaceae  
*Dodonaea viscosa* Jacq. (ind )

Sapotaceae  
*Pouteria sandwicensis* (A. Gray) Baehni & Degener (end )

Viscaceae  
*Korihalsella platycaula* (Tiegh.) Engl. (ind )

**Angiosperms--Monocots**

Agavaceae  
*Pleomele aurea* (H. Mann) N.E. Brown (end)

Cyperaceae  
*Carex meyenii* Nees (ind )  
*Carex wahuensis* C.A. Mey. subsp. *wahuensis* (end )  
*Gahnia beecheyi* H. Mann (end )

Iridaceae  
*Crocsmia X crocosmiiflora* (Lemoine ex E. Morr.) N.E. Brown (nat )

Liliaceae  
*Dianella sandwicensis* Hook. & Arnott (ind )

Poaceae  
*Axonopus fissifolius* (Raddi) Kuhl. (nat )  
*Ehrharta stipoides* Labill. (nat )  
*Holcus lanatus* L. (nat )  
*Paspalum dilatatum* Poir. (nat )  
*Paspalum urvillei* Steud. (nat )  
*Pennisetum clandestinum* Chiov. (nat )  
*Sporobolus indicus* (L.) R. Br. (nat )

Zingiberaceae  
*Hedychium flavescens* N. Carey ex Roscoe (nat )  
*Hedychium gardnerianum* Sheppard ex Ker-Gawl. (nat )

**Pteridophytes**

Blechnaceae  
*Doodia kunthiana* Gaud. (end )

Dennstaedtiaceae

*Microlepia strigosa* (Thunb.) C. Presl (ind )

**Dryopteridaceae**

*Dryopteris fusco-atra* (Hillebr.) W.J. Rob. (end )

*Dryopteris sandwicensis* (Hook. & Arnott) C. Chr. (end)

*Elaphoglossum paleaceum* (Hook. & Grev.) Sledge (ind )

*Elaphoglossum wawrae* (Luer) C. Chr. (end )

**Lindsaeaceae**

*Sphenomeris chinensis* (L.) Maxon (ind )

**Polypodiaceae**

*Lepisorus thunbergianus* (Kaulf.) Ching (ind )

**Psilotaceae**

*Psilotum nudum* (L.) P. Beauv. (ind )

**Selaginellaceae**

*Selaginella arbuscula* (Kaulf.) Spring (end )

**Thelypteridaceae**

*Christella dentata* (Forssk.) Brownsey & Jermy (nat )

**Festival Overflow Parking Area  
Checklist of Vascular Plants**

**3720 ft. elev.**

**August 2004**

K. R. Wood, [kenwood@pelea.org](mailto:kenwood@pelea.org)

[Note: Names for flowering plants follow W. L. Wagner et al. 1990. Names for pteridophytes follow D. Palmer 2002] No Federally Listed plants were observed at this site. All plants represent common species including 29 naturalized, 4 indigenous, and 6 endemic species.

**Symbols:** end=Endemic  
ind=Indigenous  
nat=Naturalized

Checklist reflects the following days of research: K. R. Wood 20—21 Aug 2004

**Angiosperms-Dicots**

**Asteraceae**

*Cirsium vulgare* (Savi) Ten. (nat )

*Conyza bonariensis* (L.) Cronq. (nat )

*Erechtites valerianifolia* (Wolf) DC (nat )

*Hypochoeris radicata* L. (nat )

Caprifoliaceae

*Lonicera japonica* Thunb. (nat )

Commelinaceae

*Commelina diffusa* Burm. f. (nat )

Fabaceae

*Acacia melanoxylon* R. Br. ex Aiton (nat )

*Trifolium repens* L. var. *repens* (nat )

Goodeniaceae

*Scaevola gaudichaudiana* Cham. (end )

Myricaceae

*Myrica faya* Aiton (nat )

Myrtaceae

*Metrosideros polymorpha* Gaud. var. *glaberrima* (H. Lev.) St. John (end )

*Psidium cattleianum* Sabine (nat )

Onagraceae

*Fuchsia boliviana* Carrière (nat )

Passifloraceae

*Passiflora edulis* Sims (nat )

Phytolaccaceae

*Phytolacca octandra* L. (nat )

Plantaginaceae

*Plantago lanceolata* L. (nat )

*Plantago major* L. (nat )

Proteaceae

*Grevillea robusta* A. Cunn. ex R. Br. (nat )

Rosaceae

*Cotoneaster pannosa* Franch. (nat )

*Rubus argutus* Link (nat )

Rubiaceae

*Coprosma waimeae* Wawra (end)

*Psychotria greenwelliae* Fosb. (end)

*Psychotria mariniana* (Cham. & Schlechtend.) Fosb. (end )

Sapindaceae

*Dodonaea viscosa* Jacq. (ind )

**Solanaceae**

*Solanum americanum* Mill. (ind )

**Angiosperms--Monocots**

**Cyperaceae**

*Carex meyenii* Nees (ind )

**Iridaceae**

*Crocsmia X crocosmiiflora* (Lemoine ex E. Morr.) N.E. Brown (nat )

**Poaceae**

*Axonopus fissifolius* (Raddi) Kuhl. (nat )

*Dactylis glomerata* L. (nat )

*Ehrharta stipoides* Labill. (nat )

*Holcus lanatus* L. (nat )

*Paspalum dilatatum* Poir. (nat )

*Paspalum urvillei* Steud. (nat )

*Pennisetum clandestinum* Chiov. (nat )

*Setaria verticillata* (L.) P. Beauv. (nat )

*Sporobolus indicus* (L.) R. Br. (nat )

**Zingiberaceae**

*Hedychium flavescens* N. Carey ex Roscoe (nat )

*Hedychium gardnerianum* Sheppard ex Ker-Gawl. (nat )

**Pteridophytes**

**Dennstaedtiaceae**

*Microlepia strigosa* (Thunb.) C. Presl (ind )

**Dryopteridaceae**

*Dryopteris fusco-atra* (Hillebr.) W.J. Rob. (end )

*Kōke'e Trailhead and Parking Improvements  
Final Environmental Assessment*

*Appendix C  
Avifauna Presence at Three Sites for EA*

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Avifauna presence at three sites for Environmental Assessment

Birds of Upland Kaua'i (Shaded: Native)	Proposed work site			Notes
	PUPUHANA TRAIL PARKING AREA	WATER TANK TRAIL PARKING AREA	OVERFLOW PARKING AREA	
Dark-rumped (Hawaiian) Petrel ('Ua'u) <i>Pterodroma phaeopygia</i>				Overflight only
Newell Shearwater (A'o) <i>Puffinus newelli</i>				Overflight only, seasonal
Band-rumped Storm-Petrel (Ake'aka) <i>Oceanodroma castro</i>				Overflight only, seasonal
White-tailed Tropicbird (Koa'e kaa) <i>Phaethon lepturus</i>				Overflight only
Great Frigatebird (Iwa) <i>Fregata minor</i>				Overflight only, seasonal
Hawaiian Goose (Nene) <i>Branta sandvicensis</i>	X	X	X	intermittent presence
Hawaiian Duck (Koloa maoli) <i>Anas wyvilliana</i>				
Black-crowned Night-Heron (Auku'u) <i>Nycticorax nycticorax</i>				Overflight only
Peregrine Falcon <i>Falco peregrinus</i>				
Black Francolin <i>Francolinus francolinus</i>	X			
Erckel's Francolin <i>Francolinus erckelii</i>	X	X	X	
Red Junglefowl (Moa) <i>Gallus gallus</i>	X	X	X	
Ring-necked Pheasant <i>Phasianus colchicus</i>				
Indian Peafowl <i>Pavo cristatus</i>				
American Coot <i>Fulica americana</i>				
Wandering Tattler (Uiiii) <i>Tringa incana</i>				
Pacific Golden-Plover (Kolea) <i>Pluvialis fulva</i>	X	X	X	Seasonal visitor
Sooty Tern ('Ewa'ewa) <i>Sterna fuscata</i>				Overflight only, seasonal
Spotted Dove <i>Streptopelia chinensis</i>	X	X	X	
Zebra Dove <i>Geopelia striata</i>	X	X	X	
Mourning Dove <i>Zenaidura macroura</i>				
Barn Owl <i>Tyto alba</i>	X	X	X	
Short-eared Owl (Pueo) <i>Asio flammeus</i>	X	X	X	Present but not known to nest in this area
Elepalo <i>Chasiempis sandwichensis</i>	X	X	X	Probably nests in this area
Pualohi <i>Myadestes palmeri</i>				
Northern Mockingbird <i>Mimus polyglottos</i>				
Common Myna <i>Acridotheres tristis</i>	X	X	X	Probably nests in this area
White-rumped Shama <i>Copsychus melabaricus</i>	X	X	X	Probably nests in this area

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Japanese White-eye	X	X	X	Probably nests in this area
<i>Zosterops japonicus</i>				
Japanese Bush-Warbler	X	X	X	Probably nests in this area
<i>Cettia diphone</i>				
Greater Necklaced Laughingthrush	X			
<i>Garrulax pectoralis</i>				
Hwamei	X	X	X	Probably nests in this area
<i>Garrulax canorus</i>				
Nutmeg Manakin	X	X	X	Probably nests in this area
<i>Lonchura punctulata</i>				
Chestnut Manakin				
<i>Lonchura malacca</i>				
House Finch	X	X	X	Probably nests in this area
<i>Carpodacus mexicanus</i>				
Kauai Amakihi	X	X	X	Probably nests in this area
<i>Hemignathus kauaiensis</i>				
Anianiau	X	X	X	Probably nests in this area
<i>Viridonia parva</i>				
Akikiki				
<i>Oreomystis bairdi</i>				
Akakee		X	X	Probably nests in this area
<i>Loxops caeruleirostris</i>				
Iwi	X	X	X	
<i>Vestiaria coccinea</i>				
Apapane	X	X	X	Probably nests in this area
<i>Himatione sanguinea</i>				
Red-crested Cardinal	X	X	X	Probably nests in this area
<i>Paroaria coronata</i>				
Northern Cardinal	X	X	X	Probably nests in this area
<i>Cardinalis cardinalis</i>				
Western Meadowlark				
<i>Sturnella neglecta</i>				

***Kōke'e Trailhead and Parking Improvements  
Final Environmental Assessment***

***Appendix D  
Archeological Assessment***

# ARCHAEOLOGICAL ASSESSMENT

PARKING LOT AND TRAILHEAD IMPROVEMENTS  
KŌKE'E STATE PARK &  
WAIMEA CANYON STATE PARK  
WAIMEA, KAUA'I

(TMK: 1-4-01: por. 2 & por. 13)



STATE OF HAWAII  
Department of Land & Natural Resources  
Division of State Parks

# **ARCHAEOLOGICAL ASSESSMENT**

## **PARKING LOT AND TRAILHEAD IMPROVEMENTS KŌKE'E STATE PARK & WAIMEA CANYON STATE PARK WAIMEA, KAUA'I (TMK: 1-4-01: por. 2 & por. 13)**

**Prepared by:  
Martha Yent, M.A.  
Department of Land and Natural Resources  
Division of State Parks**

**October, 2004**

## INTRODUCTION

Kōke'e State Park (SP) and Waimea Canyon State Park (SP) are contiguous parks in the northwestern uplands of Kaua'i (Fig. 1). Kōke'e SP consists of 4,345 acres located to the north and west of Waimea Canyon. Waimea Canyon SP consists of 1,866 acres along the western rim of Waimea Canyon and is south of Kōke'e. The valleys of Nā Pali, including Nā Pali Coast State Park, abut the north and west boundaries of Kōke'e SP. The parks are surrounded by forest reserves with the Pu'u Ka Pele Forest Reserve adjacent to Waimea Canyon SP and the Nā Pali-Kona Forest Reserve surrounding Kōke'e SP.

Much of Kōke'e SP is situated on the forested plateau that rises to 4,000 feet above sea level. The Alaka'i Swamp, an excellent example of a native Hawaiian forest environment, encompasses much of the northeastern end of this plateau. Park facilities within Kōke'e SP include Kōke'e Lodge, Kōke'e Museum, Kalalau Lookout, Pu'u O Kila Lookout, Discovery Center, and campgrounds.

Waimea Canyon SP is located at a slightly lower elevation and is subject to a drier climate. This park is marked by dry mesic forest and the lower portion of the park is surrounded by sugarcane fields. Park facilities within Waimea Canyon SP include Waimea Canyon Lookout, Pu'u Hinahina Lookout, Pu'u Ka Pele picnic pavilion, and Pu'u Lua Reservoir.

Numerous hiking trails are found in both parks (Fig. 2). To provide better access to the trailheads and avoid parking along the park roadways, improvements to two of the trailheads are proposed by State Parks in partnership with Hui O Laka (Kōke'e Museum). A grant from the Hawai'i Tourism Authority (HTA) will assist in planning, designing, and implementing these improvements. An archaeological assessment was conducted of the park sites where these improvements are proposed.

### Canyon Trailhead, Waimea Canyon State Park

The Canyon Trail is the most popular trail in the parks. At present, this trail begins at the intersection of Kōke'e Road and Halemanu Road and follows the rim of the canyon for a distance of 2.7 miles. Parking is occurring along Kōke'e Road at the intersection and hikers must walk along Halemanu Road for an approximate distance of 0.5 mile.

The proposed changes include a new parking lot adjacent to the existing paved parking lot at Pu'u Hinahina Lookout (Fig. 3). The existing lot accommodates 35 cars and vans. The new lot will add another 35 stalls for hikers. From the parking lot, hikers will follow a new trail alignment that will connect with the trailhead of the Canyon Trail.

### Water Tank Trailhead, Kōke'e State Park

Several trails begin in the area of the Discovery Center, including the Water Tank Trail, Berry Flats Trail, and Pu'u Ka 'Ohelo Trail. There is no designated parking area for these trails and hikers access the trails off either Kōke'e Road or Mohihi Road. These trails are also used as part of the environmental programs offered by the Department of Education at the Discovery Center.

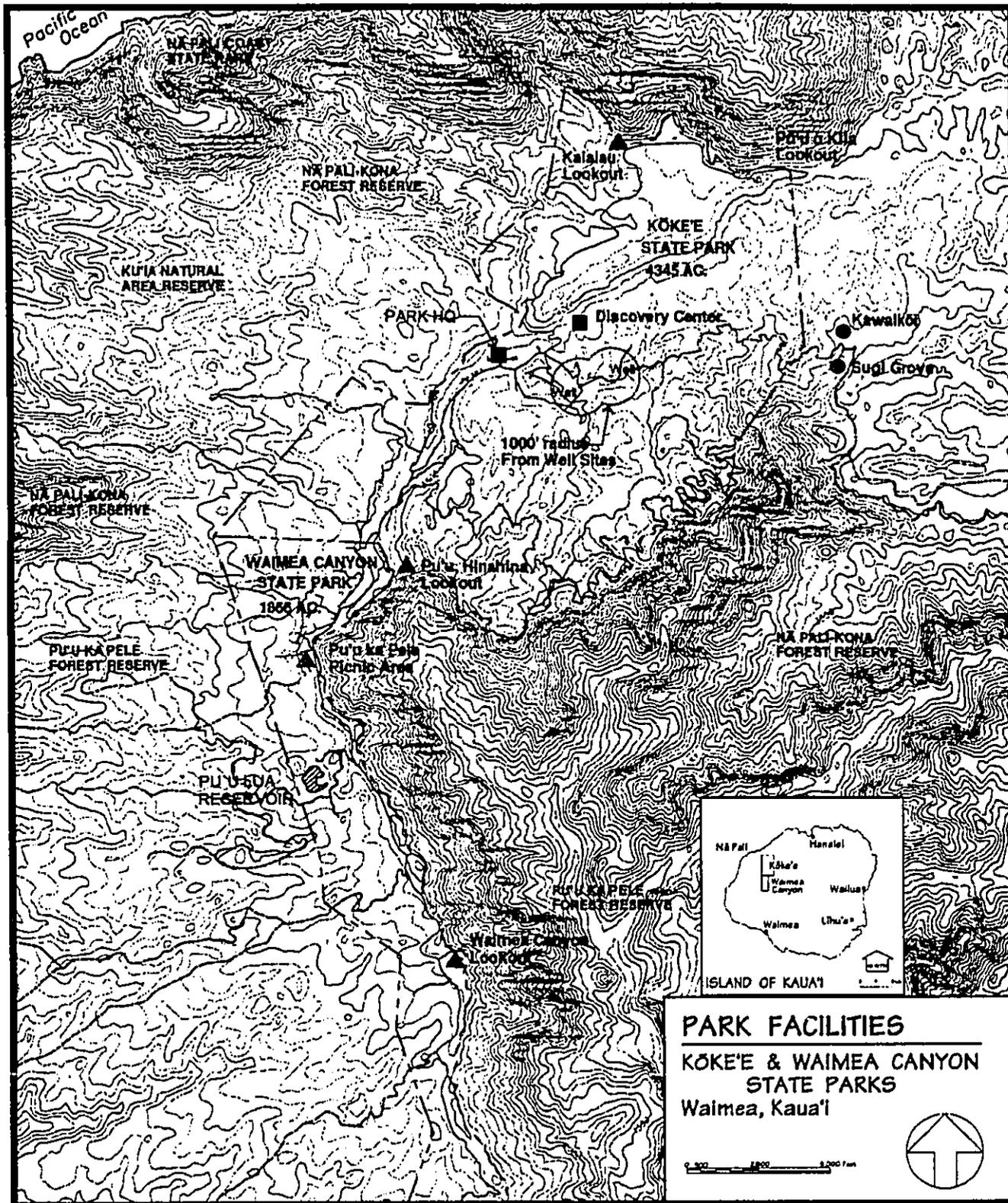


FIG. 1 - Location of Kōke'e and Waimea Canyon State Parks and project area for trailhead improvements. Improvements are proposed at Pu'u Hinahina Lookout within Waimea Canyon SP and the Discovery Center within Kōke'e SP.



FIG. 2 - Existing trails with Kōke'e and Waimea Canyon State Parks.

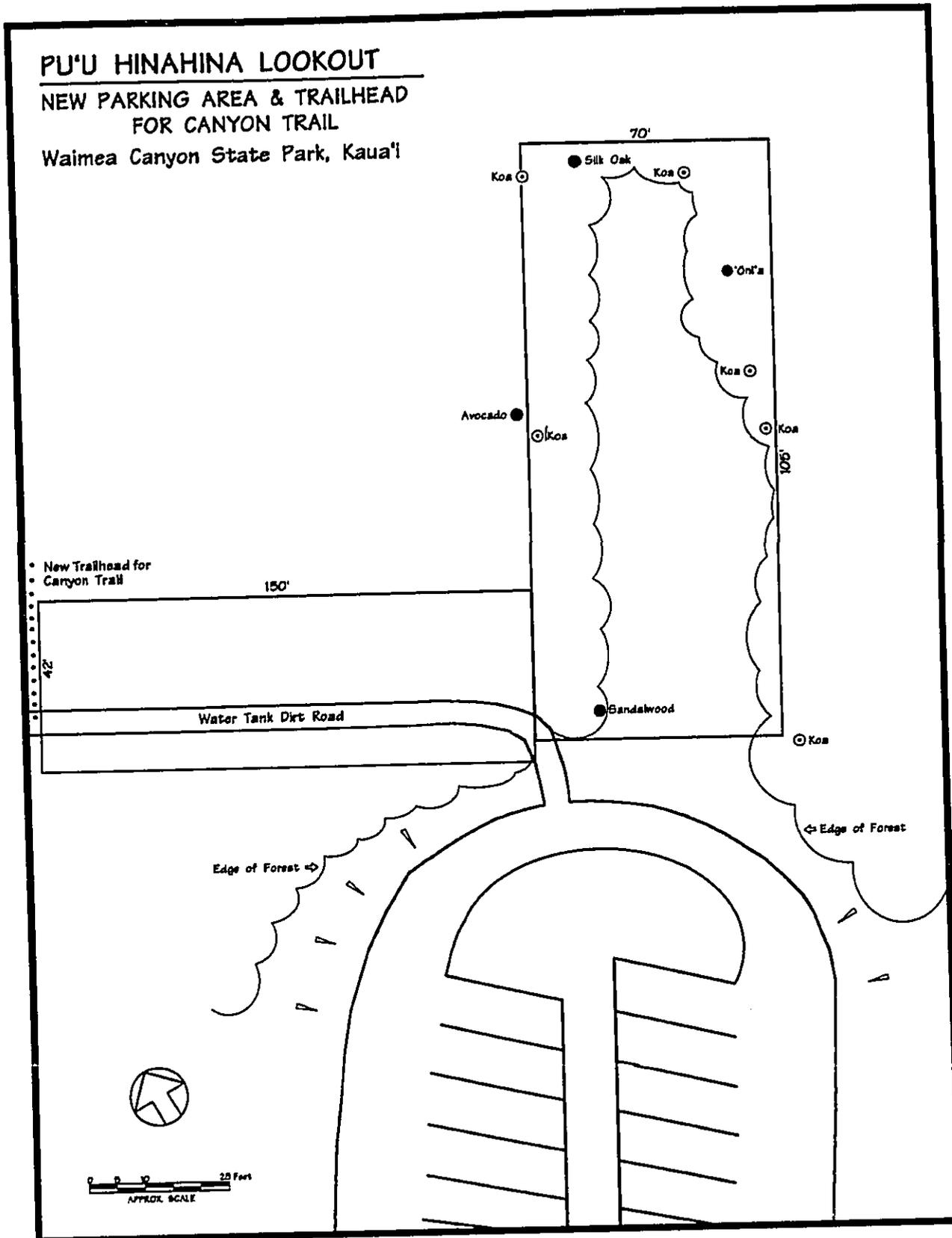


FIG. 3 - Proposed improvements at Pu'u Hinahina Lookout, including a new parking area and new trailhead for the Canyon Trail.



PHOTO 1

Site at Pu'u Hinahina Lookout proposed for expanded parking lot and new trailhead for the Canyon Trail. View is to the north and site is off the north end of the existing parking lot.



PHOTO 2

Site at Kōke'e Discovery Center proposed for new parking area and trailhead for the Water Tank Trail. View is north with the existing dirt road to the Discovery Center shown to the right.

The proposed changes include a new parking lot off Kōke'e Road and a realignment of the Water Tank Trail (Fig. 4). The parking area will make use of a relatively flat area between Kōke'e Road and the Discovery Center that can accommodate 22-25 cars. The trailhead will be realigned to begin at the parking area.

## ENVIRONMENTAL CONDITIONS

There are slight variations in the environmental conditions of the two project areas due to differences in elevation. The Kōke'e project site is located between Kaunuohua Ridge (west) and Kumuwela Ridge (east). The soil in this central park area falls is part of the Kōke'e silty clay loam series. These soils are well-drained and developed in material weathered from igneous rock mixed with volcanic ash (Foote et. al. 1972). Rainfall averages 60-70 inches annually. The natural vegetation adjacent to the built environment consists of a stand of mesic forest dominated by 'ōhi'a lehua and koa. The contact between the forest and the developed area is marked by a band of alien species that includes lasiandra (*Tibouchina urvilleana*), ginger (*Hedychium flavescens*), banana poka (*Passiflora mollissima*), hydrangea (*Hydrangea macrophylla*), blackberry (*Rubus argutus*), and strawberry guava (*Psidium cattleianum*).

The Pu'u Hinahina project site is drier with 40-50 inches of rainfall annually and hotter with slightly higher temperatures. This site is located to the south of Kumuwela Ridge that marks the separation between the Alaka'i high plateau and the Waimea cliff and valley formation. Pu'u Hinahina is an elevated peak along the western canyon rim and the Pu'u Hinahina Lookout has two viewing platforms, one facing west toward the canyon and the other facing south toward Ni'ihau Island. The soils in the area consist of Pa'aiki loams formed from material weathered from igneous rock, volcanic ash, and ejected magma. The vegetation pattern is similar to the Kōke'e project area with a koa/'ōhi'a mesic forest being invaded by alien species, such as strawberry guava, silver oak, and avocado.

## HISTORICAL OVERVIEW

It appears likely that the upland area of Kōke'e and Waimea Canyon were utilized in the pre-contact period as resource gathering zones, rather than areas of permanent habitation or agriculture. Several legends suggest this use. One attributes the road of sticks through the Alaka'i Swamp to the *menehune* (Rice 1923). Another refers to Lahi (or Lauhaka), a young man who would eat only birds, and traveled to the top of Kilohana (a lookout at the edge of the Alaka'i Swamp) where the *Uwa`u* bird nested to satisfy his hunger (ibid). Pu'u Ka Pele is referred to as an area for gathering koa canoe logs and other building materials:

At one time the Menehune built two canoes of koa in the mountains near Puu-ka-Pele. As they were dragging them down to the lowlands, they were caught by a heavy rain-storm, and were forced to leave the canoes across the little valley. The storm covered the canoes with debris, and later, a road was built across them, over which all the materials to build the village of Waimea were hauled (ibid).

Further evidence for the gathering of canoe logs from the uplands comes from the narrative of the Dutch merchant Captain Jacobus Boelen, who visited Waimea in 1828.

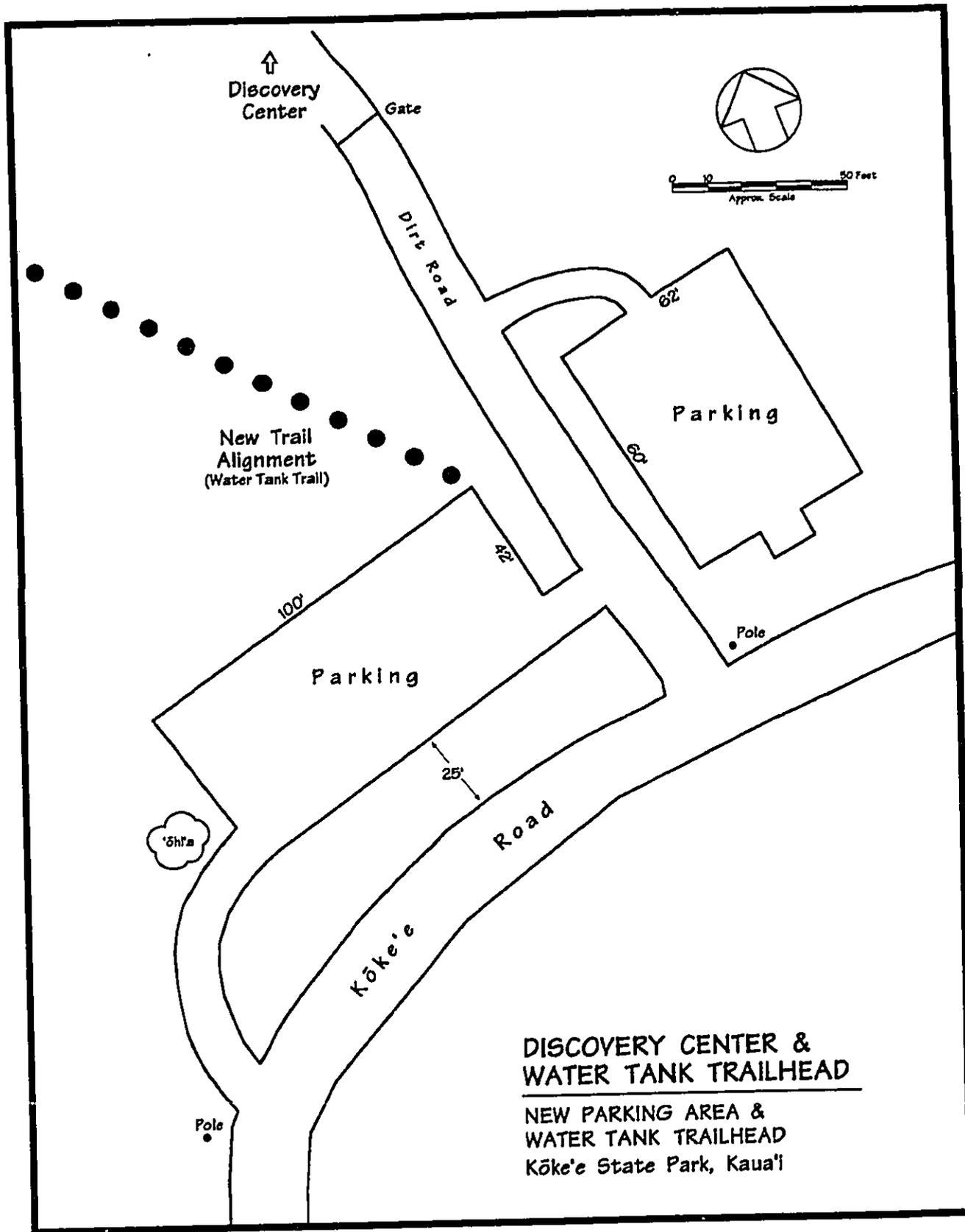


FIG. 4 - Proposed improvements near the Discovery Center, including a new parking area and new trailhead for the Water Tank Trail.

While his ship was being loaded with sandalwood, he spent some time exploring the region and included the following observation:

On that day we visited Quequaheva's [Kaikio'ewa's] shipyard, which consisted of large sheds where the largest and most beautiful canoes that can be found in the islands were made. We were assured that the island of Atooi [Kauai] had always been the principal workshop of the islands in these matters. Under one very neatly made roof I saw two of the largest double canoes I have ever seen . . . Long, narrow, and lightly built, although of a strong and heavy type of wood [koa], they have only a shallow draught. . . some of these vessels - especially those double canoes of the largest sort, which the highest chiefs use - are up to seventy or eighty feet long . . . (Broeze 1988).

It is apparent from this description that *koa* trees of exceptional size were being harvested in the uplands, where they were partially worked to lessen their weight prior to transport to the coast.

Handy does not specifically mention Kōke'e with respect to Hawaiian agriculture, although he does state that "the upper gulches and forests in and above Waimea Canyon should be favorable localities for yams" (Handy 1940: 171). He also mentions that boggy areas in the uplands were utilized for the cultivation of *olonā*.

There are trails recorded which ran from the valleys of Nā Pali to Kōke'e and Waimea Canyon. Bennett (1931) recorded several trails connecting different areas of Nā Pali coast with the uplands. A network of upland and coastal trails is recorded in the following:

More anciently the old Hawaiians used a number of overland trails. The Kamaile trail descended into Nu'ulolo [Nu'alolo] Valley inland. There was a trail connecting Nu'ulolo with Honopu. A good trail overland connects Kalalau with Ha'ena. There is a trail from Koke'e in the mountains above Kekaha down into Kalalau. From Polihale travelers could go on foot, with a little swimming, to Miloli'i, and a trail connected Miloli'i with Nu'ulolo flats. Another trail connects Miloli'i with Koke'e. And there was the path (*ala*), said to have been built by King 'Ola, that led from Waimea Delta up the canyon to Koke'e, over the Alaka'i Swamp, where it was said to have been paved with sticks (*kipapa*), and thence down Maunahina ridge into Wainiha by way of Koke'e. (Handy and Handy, 1972)

This trail system suggests a connection between the north and south sides of the island, although whether the trails facilitated trade or simply travel between the two areas is not known. It can be assumed that the upland forests were utilized as resource gathering zones for such items as hardwoods, bird feathers, and medicinal plants, as well as freshwater resources such as *o'opu* and *opae*. Undoubtedly a substantial trail existed between the upper Waimea Canyon and Waimea Village to facilitate the transport of large canoe logs.

The Reverend Hiram Bingham traveled from Waimea to Hanalei in 1821 along the old established route passing through Kōke'e. The trail consisted of a "narrow, winding, slippery foot-path, sometimes on sharp ridges, here ascending and there descending rugged steep" (Bingham, 1981). He described the uplands as being uninhabited but mentioned several temporary shelters along the way which he attributed to sandalwood cutters and reported abundant sandalwood forests still in existence.

Queen Emma, in 1871, made a trek from Waimea to the "Kilohana of Hanalei", at the edge of Wainiha Valley. A party of about 100 people accompanied the queen, along a route which again likely followed the old trail. At that time the trail was very overgrown but still recognizable. Among the more interesting anecdotes of the trip was a stop the party made on the edge of Kauaikinana Valley where Queen Emma, overcome by the beauty of the spot, insisted upon a *hula* performance. The trip then continued through the Alaka'i Swamp where the party spent the night. The trail through the swamp was described as a "corduroy road", built of tree-fern logs placed side by side. They reached the Kilohana the next morning and then retraced their steps to Waimea (Knudsen 1940).

The sandalwood trade dominated the Kaua'i economy in the early nineteenth century. Beginning in 1810 and reaching a peak in 1821-22, commoners were forced to leave their taro fields and head into the mountains to cut the precious wood. The resource was controlled by King Kaumuali'i, who exchanged the commodity for ships and other western luxuries. Unfortunately, this took a great toll upon the people as well as the sandalwood forests, which were all but depleted by the mid-1830's. Waimea was the sole port of export on Kaua'i for the wood, which came almost exclusively from the upland gulches of Waimea Canyon and Kōke'e (Joesting 1984).

Valdemar Knudsen obtained a lease to much of the present day Kōke'e State Park in the mid-1800's. He used the land to run cattle, which provided beef to provision the whaling vessels. The cattle industry on Kaua'i diminished greatly by 1900 due to the decline of the whaling business (Joesting 1984). Also in the early 1850s, Mr. Archer built the first house in Kōke'e at Halemanu. Mr. Archer travelled through Kōke'e in transit between his tobacco farms in Hanalei and Mana (Damon 1931: 292).

The decline of cattle overlapped with the onset of the sugar industry. Beginning in the late 1800's and continuing into early this century, an irrigation system known as the Waimea Canyon-Kekaha ditch tapped the upland streams to irrigate the cane lands on the west side of the island. In 1923, the Kōke'e Ditch was built by Kekaha Sugar as part of this larger system. The Kōke'e Ditch captures water from streams in the Kōke'e area (Wilcox, 1984). In conjunction with this development, plantation camps were constructed in the uplands to house the Chinese and Japanese workers who built and maintained the ditch system.

Land use in Kōke'e during the 20th Century consists mainly of recreational and military activities (Heathcote 1993). Wealthy sugar plantation owners built vacation cabins in Kōke'e to escape the summer heat of the lowland plains. Hunters travelled on horseback to the uplands in search of pigs and goats. In 1929, there was an effort to establish forest reserves to encourage the recovery of the native forests after the range fire of 1890 (Wenkam 1967: 102). This met with objections from the ranchers of Kōke'e, but was supported by the public seeking recreational opportunities in the mountains. In 1930, 755 acres were designated the Waimea Canyon Territorial Park, but it was not until 1952 that Kōke'e Territorial Park was designated when 4,451 acres were removed from the Nā Pali-Kona Forest Reserve for park purposes. At this time, these parks were under the jurisdiction of the Board of Agriculture and Forestry.

The Civilian Conservation Corps (CCC) facility at Kōke'e was constructed in 1935 and a large network of trails was built and existing trails were refurbished by the CCC following the Great Depression. During World War II, the CCC Camp was used by Army's Signal Corps while laying a telephone line through the Alaka'i Swamp and down to Hanalei. In 1940, the Army also constructed a support camp for their a radar station at Kōke'e in the vicinity of the Kalalau Lookout (Plews 1995). The radar station was returned to the Territory of Hawaii in 1949.

In the 1940's, the road to Kōke'e was improved, and the lookouts at Waimea Canyon and Kalalau were constructed. The Army camp was dismantled in the early 1950s and the wooden buildings were relocated or dismantled to create many of the buildings for Kōke'e State Park. One building is now the Kōke'e Museum while wood from other buildings was used to construct the Kōke'e Lodge and four park cabins. Between 1947 and 1953, much of Kōke'e State Park was built, including the Kalalau Lookout and the Waimea Canyon Lookout (DLNR 1962: 38).

The Hawaii Air National Guard installation and a NASA tracking station were constructed in the 1960s as part of the National Space Program. The Air National Guard (Air Force) has operated its radar tracking facility on the former site of the Army radar station since 1961 (Dept. of the Air Force 1995). This use of recreational areas for military purposes was controversial when these activities were first proposed at Kōke'e (Wenkam 1967: 118-119).

## PREVIOUS ARCHAEOLOGICAL SURVEYS

Archaeological surveys in Kōke'e and Waimea Canyon State Parks have been limited in number and scope. As a result, few archaeological sites are recorded in the park areas. Kōke'e is generally regarded as a resource gathering zone rather than an area of permanent habitation which implies that archaeological sites from the temporary use of the area are more likely to be found. The previous archaeological surveys are summarized below and the location of the inventoried sites is shown in Figure 5.

The 1906 survey of *heiau* sites by Thomas Thrum identified 2 sites in Kōke'e:

**Ahuloulu Heiau:** Located at the base of Puukapele, this site consists of 3 platforms. The central platform is described as an enclosure measuring 12 by 30 feet with walls about 3 feet high but badly dilapidated. Thrum states that "no special significance seems to be attached to this so-called heiau".

**Ka-unu-aiea Shrine:** Small shrine in the dense *koa* forest of Miloli'i but there is no platform left to indicate its existence. Thrum states that this shrine is located on Kaunuohua Ridge and it may have been located in the area of the NASA tracking station. Thrum classifies the shrine as an *unu* for the shifting population of the forest belt. When Bennett recorded this site in 1928-29, he called it a *heiau* and described it as a small clearing containing a line of stones forming no outline or platform. He further added that the location is "in the forest above Halemanu".

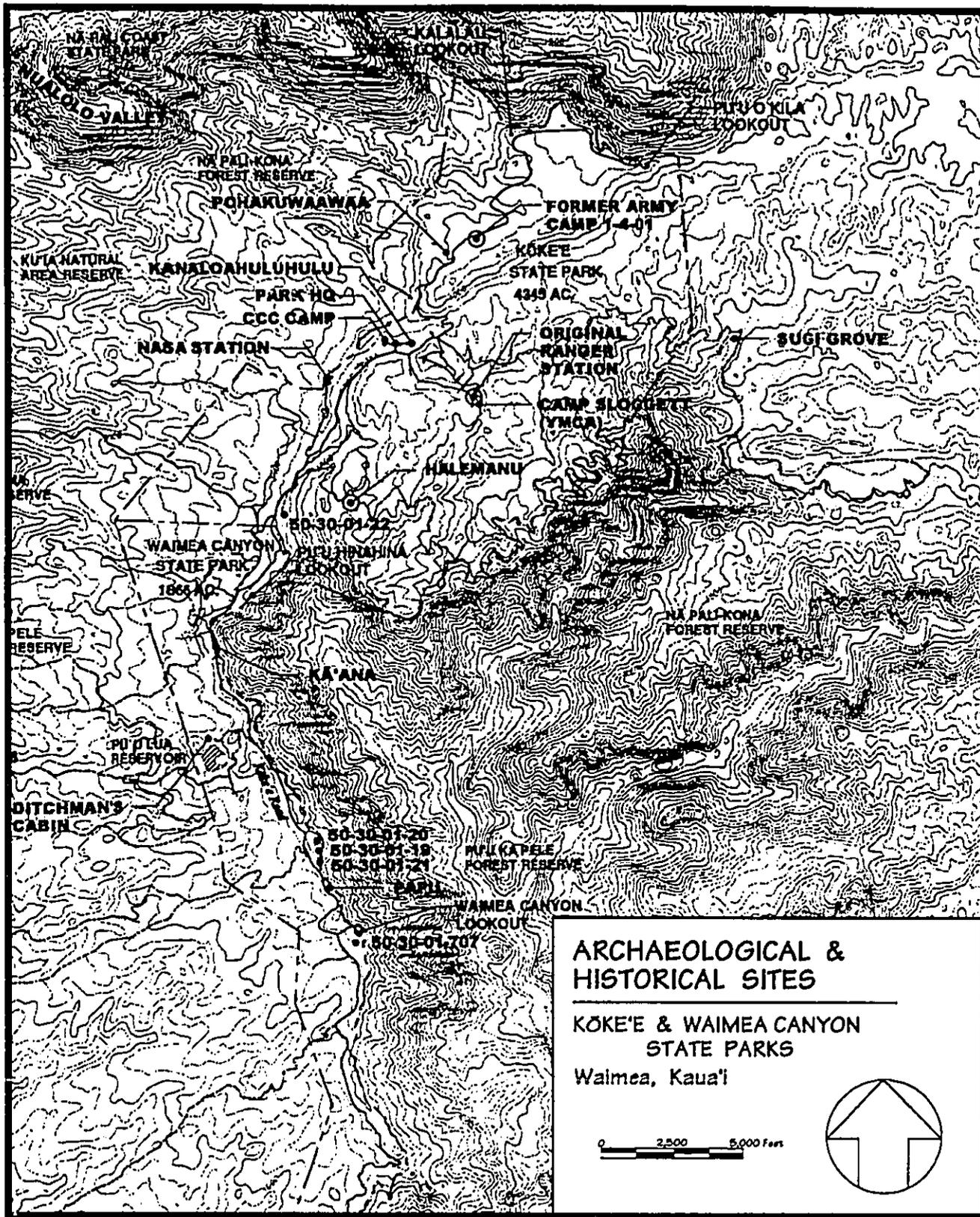


FIG. 5 - Distribution of known archaeological sites within Kōke'e and Waimea Canyon SP.

Bennett recorded 2 additional sites at Pu'u Ka Pele, both being house site complexes (Bennett, 1931: 104). Three site numbers were given to the sites at Pu'u Ka Pele:

- 50-30-01-19: Ahuloulu Heiau. This *heiau* consists of a walled enclosure, the outside dimensions of which are 37 by 41 feet. The walls are 4 feet wide and badly broken. In front of this structure is a flat area about 50 by 50 feet without paving or boundaries. Back of the enclosure there is a paved platform 8 by 12 feet. This platform is backed by a large rock, the plugged-up holes in which indicate that it might have been used as a depository for umbilical cords.
- 50-30-01-20: House sites around the crater of Pu'ukapele. The remains of 7 house sites are indicated by stones in line forming a terrace with a flat space behind. Some of these house sites measure 30 by 20 feet.
- 50-30-01-21: House sites toward the sea from Pu'ukapele on the north side of the road. A series of house sites are located on top of a flat ridge, the edge of which is lined with stones for 50 feet or more.

A fourth site number, 50-30-01-22, was assigned to Kaumuaiea Heiau located to the north of the Pu'u Hinahina Lookout.

Francis Ching fieldchecked the sites in 1974 in conjunction with the Statewide Inventory of Historic Places. He relocated sites 19 and 20 and although he suggested that site 21 was probably still present, he could not confirm this because of the dense vegetation. Subsequently, sites 19, 20, and 21 were consolidated under site #19, the Pu'u Ka Pele Complex. The condition of the *heiau* site (#19) was evaluated during a fieldcheck in April, 1995 by State Parks Archaeologist Martha Yent. The site is covered by a dense growth of lantana and *koa haole* with a dense mat of silk oak leaves on the surface.

Brief reconnaissance surveys in the Kōke'e area have been conducted by Ching (1978a, 1978b), Kikuchi (1982), Yent (1982), and Walker and Rosendahl (1990). However, these surveys did not locate any archaeological sites.

In 1993, an archaeological reconnaissance survey was conducted along the ridge roads of Kōke'e prior to widening of these roads as firebreaks after Hurricane Iniki (McMahon 1993). A single archaeological site was recorded at the end of Polihale Ridge (State site #50-30-05-499). This site consists of a 5 meter long stone alignment that may have served as a sweet potato planting area. The general lack of sites recorded during this survey is believed to be the result of the extensive disturbance in the 20th Century from the sugarcane plantations, military activities, and reforestation.

Another 1993 survey involved 3 facilities in the Kōke'e and Waimea uplands (Dowden and Rosendahl 1993). No sites were located at the Pacific Missile Range - Makaha Ridge Facility, the Halemanu section of the Pacific Missile Range - Kōke'e Facility, or at the Kōke'e Air Force Station and Former NASA site.

Two independent archaeological surveys were conducted in conjunction with the proposed concession facility at the Waimea Canyon Lookout. State Parks

archaeologists recorded site #50-30-06-707 during a 1993 survey (Carpenter 1993). This site consists of a single row of stones on 3 sides on a level area about 80 meters southwest of the men's restroom at the lookout. The site is may be a temporary habitation site related to the logging of wood for canoes. The other survey conducted at the lookout involved archaeological testing (Chaffee and Spear 1993). No sites or subsurface cultural deposits were located during this survey.

In December 1993, an archaeological survey was conducted on the *makai* portion of Kahuama'a Flat for a plant sanctuary proposed by DOFAW (Carpenter and Yent 1994). This survey area is on the *makai* side of the Kōke'e Park Road and approximately 1.25 miles northeast of the Army Camp project area. Much of the Kahuama'a survey area consists of extremely steep cliffs at the back of Kalalau Valley. The dense vegetation hampered a thorough survey of the flat portion on the rim of the valley. No archaeological sites were located during this survey.

A survey of the old Army Camp site at Kōke'e was conducted in October 1994 (Yent 1995a). This camp was built in the early 1940s on Kaunuohua Ridge and was dismantled in the 1950s. This camp site is approximately 1.5 miles northeast of the CCC camp site. The Army Camp consisted of 5 major buildings along a dirt roadway off the paved Kōke'e Road with an additional 4 outlying structures. One concrete building remains along with the concrete slabs from 2 other buildings. No subsurface archaeological deposits or features other than those associated with the camp were located during the survey. A similar survey of the CCC Camp was conducted in 1995 (Yent 1995b). This facility consists of 7 wooden buildings around a grassed quadrangle. No subsurface testing has been conducted to determine the presence or absence of cultural deposits at the CCC Camp. The CCC Camp was listed on the Hawai'i and National Registers of Historic Places in 1996.

In 2004, in conjunction with the master planning for Kōke'e and Waimea Canyon State Parks, an archaeological fieldcheck was conducted at 10 sites identified for future park development (Chiogioji et al. 2004). Several of these sites are existing park facilities, such as the lookouts. No significant sites were located at any of the 10 locations. One of the survey locations included Pu'u Hinahina Lookout and this survey area overlaps with the current project area. No surveys were conducted in the vicinity of the Discovery Center.

The archaeological surveys conducted to-date in Kōke'e tend to support the idea that this upland area was used largely as a resource gathering zone with limited habitation. The stone-lined platforms recorded at Pu'u Ka Pele and near the Waimea Canyon Lookout appear to be temporary habitation sites.

## ARCHAEOLOGICAL ASSESSMENT

An archaeological site survey was conducted on May 5, 2004 at the three park sites where trailhead improvements are proposed (Fig. 6). One site is at the Pu'u Hinahina Lookout and a second at the Discovery Center. A third area near the Discovery Center was surveyed in the event that future expansion is needed. The survey did not locate any surface features and no subsurface testing was conducted.

### Canyon Trailhead/Pu'u Hinahina Lookout

The survey encompassed an area approximately 120 feet north from the end of the existing parking lot and 150 feet west along both sides of the existing dirt road to the water tank (refer to Fig. 3). The northern edge of the proposed parking area is about 50 feet from the canyon rim. The realigned trail will follow the existing dirt road to the water tank and then turn northeast through the *koa* mesic forest that is being overtaken by guava.

The survey along the dirt road covered a 30-foot wide strip along both sides of the road. The roadbed is slightly higher than the surrounding area. Scattered boulders were noted on the surface, but none of these boulders constituted features or sites. The survey area to the north of the parking lot covered an area 120 feet (north-south) by 100 feet (east-west). No features or sites were located in this area.

An archaeological field inspection of the Pu'u Hinahina Lookout area was conducted in January 2004 by Cultural Surveys Hawaii as part of the master planning for Kōke'e State Park (Chiogioji et al. 2004). Their survey area appears to have covered a 100-foot width around the perimeter of the parking lot and encompassed some of the area proposed for the trailhead improvements. The survey noted the dense vegetation and hilly terrain, but located "no surface historic properties or evidence of subsurface cultural layers" (ibid: 22).

The project area appears to have been impacted by the construction of the parking lot, the dirt road, and the water tank. There was no evidence of any subsurface cultural deposits in the cuts along the western and eastern sides of the parking lot. Therefore, the proposed improvements in this area should have no adverse effect on any archaeological sites or cultural features.

### Water Tank Trailhead/Discovery Center

The survey encompassed on the north side of Kōk'e Road and along the dirt road leading to the Discovery Center (refer to Fig. 4). The survey covered approximately 100-foot (east-west) wide areas on both sides of the dirt road and another 80-100 feet (north-south) from Kōke'e Road. A total of 0.34 acre was surveyed for these parking areas.

In addition to the parking lot, a survey was made along the proposed realignment of the Water Tank Trail. The new trailhead is on the northeast corner of the parking area located on the west side of the dirt road. The trail follows the lower eastern slope of Kaunuohua Ridge and is about 50 feet west (upslope) of the driveway to the Discovery Center. The slope is covered by a dense growth of strawberry guava with scattered 'ōhi'a. The trail distance surveyed is approximately 500 feet from the proposed parking lot to the existing trailhead.

The project area was partially impacted during the construction of the Discovery Center. At the edges of the disturbed area, several scattered, rounded basalt boulders were noted on the surface. However, none of these boulders constituted sites.

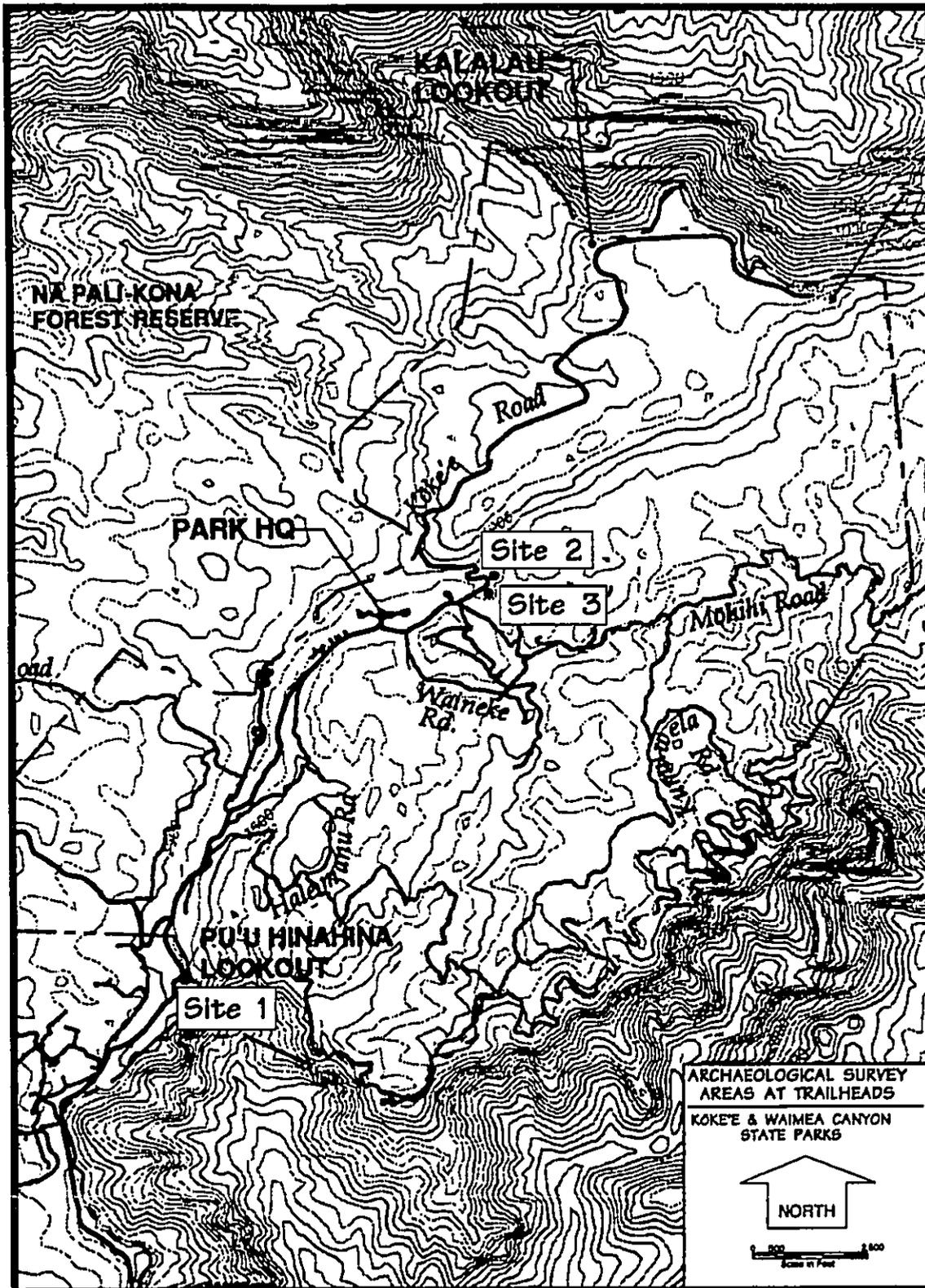


FIG. 6 - Location of the 3 survey areas within Kōke'e and Waimea Canyon SP.

Along Kōke'e Road (Survey Site 3)

The third site was surveyed in conjunction with the proposed improvements near the Discovery Center. The survey area is located on the southeast side of Kōke'e Road between the roadway to the Discovery Center and Mohihi Road (Fig. 6). The survey area measures approximately 150 feet along Kōke'e Road by 80 feet or about 0.35 acre in size (Fig. 7). The vegetation is dominated by strawberry guava. The area is relatively level and appears to be previously disturbed for park purposes or road construction. No surface features were noted in the survey area.

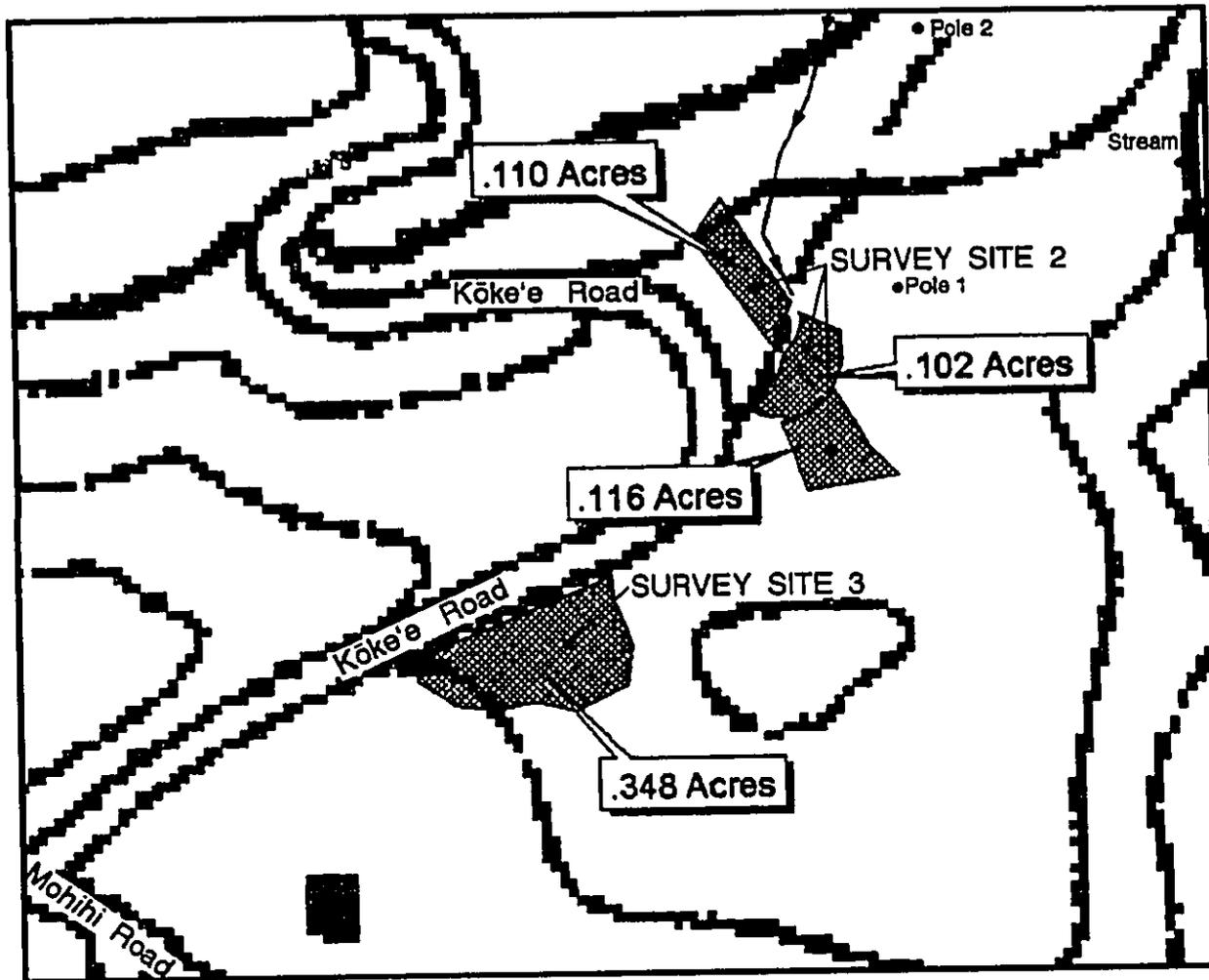


FIG. 7 - Portion of GIS map showing survey sites 2 and 3 near the Discovery Center.

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***Kōke'e Trailhead and Parking Improvements  
Final Environmental Assessment***

***Appendix E  
Cultural Resources Assessment***

### Wilson Aana

Mr. Wilson Aana was born in 1926 in Makaweli, Kaua'i and raised in Waimea Valley where he currently resides. His father, John Aana, worked for Kekaha Plantation and managed the hydroelectric plant deep in Waimea Canyon. As a child, Mr. Aana would go up into the canyon to catch 'o'opu, hunt for pigs and goats and pick mangoes. He would occasionally go up in to the Kōke'e area to pick plums or gather maile and mokihana.

In the early 1930's Mr. Aana recalls that there were very few families going up into the valley and the Kōke'e area. The few families that did go up mauka were gathering for sustenance reasons only, they never took more than what was needed. The Aana family would occasionally harvest taro from a patch up in the canyon near Waialae Canyon. He also spoke of memories of his family catching 'o'opu in various streams in Waimea Canyon. His family would then bring their catch to share with other families.

Although Mr. Aana spent much time in the Waimea and Kōke'e area he recalls more about the activities that he used to partake in rather than actual historical sites. He did mention the memory of a large heiau near the junction of the Koai'e and Waihulu rivers. When asked if he knew of any sites near Kukui Trail or in the Kōke'e area he could not recall any.

### Wayne Souza

Mr. Wayne Souza was born on Kaua'i in 1947 and raised on the west side of the island. He is a nephew of Joe Souza, a pioneering park administrator, to whom he credits much of his knowledge of the Waimea and Kōke'e Parks area. As a child, Mr. Souza occasionally visited Kōke'e with his family to pick plums or purple lilikoi. During high school, Mr. Souza spent his summers working in the park. After spending time away from Hawaii for college and military service, he worked for nineteen years as a planner for O'ahu's state parks.

Mr. Souza says that his uncle was the one who told him about archeological sites at Pu'ukapele and the Waimea Canyon Lookout, but he has not seen any historic sights for himself. He says that at either sight there was a house site or a canoe building site. Mr. Souza also mentions that in 1891 compiled from government surveys and private surveys of Gay and Robinson land gives the Kalalau Lookout the name Ahuloulu. He says that this is interesting because ahuloulu is a type of heiau and he wouldn't be surprised if there had been one there in the past.

As for traditional gathering practices within the parks, Mr. Souza mentions the gathering of 'akulikuli flower and other plants for decorative and lei making purposes but cannot recall any gathering for medicinal plants. Today, he says that most of the gathering is done by hula halau for festivals, or making lei for graduation and May Day. He also recalls hunting for pig and in more recent times hunting for goats.

Mr. Souza is concerned with the future of the park because he feels that a small number of people can do a lot of damage. A few examples are people stealing koa logs,

or continuous commercial harvesting of maile. He feels that we need to control the numbers and type of people that are visiting the area and control tourism rather than it dictating the direction of the park. He also feels that there needs to be a lot more education and interpretive guides. Mr. Souza stresses that visiting the park should be seen as a privilege and we have a responsibility to maintain the areas.

### Aletha Kaohi

Aletha Kawelukawahineholiolimaloa Goodwin Kaohi was born in 1930 and raised in Waimea Valley. Her father, William Kapahukaniolonookanioahou Goodwin, was the Kōke'e Parks caretaker beginning in the 1940's and she spent much time with him in the area. She credits her father for teaching her about the lore of the area and teaching her about the cultural practices that were taking place within the park.

Mrs. Kaohi can trace her family's genealogy on her great grandfather's side back to the Tahitian migration and the land that her family currently occupies was awarded to them during the Māhele. Her family has a great knowledge of the area. Her father used to hike from Kōke'e down to Miloli'i and Nā Pali and he used to help care for and repair the ditch and pipes that helped to water their fields.

When asked about her recollection of cultural practices in the Waimea and Kōke'e Parks area, she replied that when "she grew up in the thirties and forties cultural practices were being frowned upon, it was a time when the culture was suppressed." She said that her family occasionally went up mauka to gather maile and mokihana and that her father used to hunt for pigs and goats in the Pu'u ka Pele.

Mrs. Kaohi also mentions traditional sites such as the Kanaloahuluhulu Meadow where royalty used to visit. She said that there is a canoe making site below the first lookout and if you look at the kuleana names of places you can figure out the history of the area. She also spoke of a trail that goes down to Kalalau from the lookout. The trail is called Ala ilio which means road of the dog. She also said that her father would travel from Kōke'e down to Koai'e. She said that he would always travel on traditional trails

and would never cut his own path. In her interview, Mrs. Kaohi was also asked about her knowledge of burial sites in the area but could not recall any.

When asked about her concerns for the future of the parks area, Mrs. Kaohi says that people need to develop more awareness and respect for the Hawaiian culture and that the park area needs to be preserved for traditional gathering practices. She feels that there needs to be limitations on what people can harvest from the forest and people need to be taught how to harvest properly. She closes by saying "If you love your forest you're going to go up there and do what you can to save the forest."

### Frederick Wichman

Mr. Frederick Wichman was born on Kaua'i in 1928. He is the descendant of the Rice family. His grandfather, Charles Rice, was a senator in the territorial legislature and Mr. Wichman's great grandfather, William Hyde Rice, was the last royal governor of the island.

Mr. Wichman spent many of childhood summers at his family's cabin in Kōke'e. He said that throughout the thirties, up until the war, his family and many others that owned cabins, would move in to their cabins on Memorial Day and move out on Labor Day. The men would stay only on the weekends and travel back down the mountain to work during the week. Mr. Wichman learned much of his knowledge from listening to his grandfather and the other men's stories. He said the story telling was a large part of his summers in Kōke'e because there was little else to do at night. Mr. Wichman has spent much time writing the stories that were passed down to him and gathering other stories. He has compiled all of the stories into a book called "Kaua'i Tales"

Some of the main stories that Mr. Wichman recalls are of canoe making at Pu'ukāpele and to pōhaku that Queen Emma danced on during her journey through Alaka'i. He says that if you know where to look, you can find where the old trail down to Kalalau connects to the Awa'awapuhi trail. When asked about his knowledge of traditional practices and historic sites in the parks area, Mr. Wichman says that the canyon still has remnants of many settlements but the only one that he can recall hearing about in the mauka area is one at Pu'ukāpele where canoe builders and feather gatherers might have stayed. He remembers hunting of pig and later goat and deer. He also remembers people

gathering maile and mokihana.

Concerning the future of the Kōke'e and Waimea parks, Mr. Wichman feels that maintenance of the area is the responsibility of the community and the leaseholders. Mr. Wichman feels that without the leaseholders, the historic cabins would fall apart and you would lose the family values associated with the places. He said that he would also like to see more areas of the park surveyed for historic sights so that the stories surrounding them could hopefully be restored. He also feels that younger generations need to become more involved in maintaining the park. He feels that you have to rely on the Hawaiian concept that the land is living and you have to take care of it in order for it to support you.

### John Plews

John Plews was born on Kaua'i in January, 1934. He is a descendant of the Rice family who is a long-term leaseholder of a cabin in Kōke'e. He spent every summer up until the beginning of World War II at his grandfather's cabin. His first memory of his summers in Kōke'e are from 1938, when he was four, because it was the first year that he was allowed to ride his own horse up to the cabin and go on all day rides.

Much of his knowledge was learned from his family members and also from his own explorations throughout the park. In his interview, Mr. Plews talks about various historic sites within the park and also the changes that were associated with the cabins and their leaseholders. He recalls that the furthest mauka habitation was the bird catcher's house which was incorporated into the Knudsen cabin and later moved out of the park. Mr. Plews mentioned a legend about two Hawaiian kings that built a heiau on the rim of Kalalau but there is no archeological evidence. In the 1960's Mr. Plews says that he found evidence of a heiau on the road leading up to Kōke'e from Kekaha but years later he was not able to find it and he believes that it was bulldozed by the sugarcane farmers. He says that he has also looked for a heiau that is supposedly at Pu'ukapele but he can not find it because the area is so overgrown with lantana.

As for traditional trails, Mr. Plews only recalls stories of trails that were traveled regularly. He said that the other stories are lost when the trails become overgrown because they aren't traveled frequently. The main trail that he remembers is the one that lead from Waimea, across Alaka'i into Wainiha and then branched off to Kalalau or to where the museum is today.

Mr. Plews also talked in great detail about remnants of the military in Kōke'e during WWII. He was one of a few civilians that was allowed into the park during the war because Colonel Pickett was a family friend. He says that part of the present DOFAW nursery was squad tents and barracks. Across the street near the Awa'awapuhi trailhead is a concrete hardstand which was once the foundation for a military motor pool and gas station. He also says that he found an ammunition tunnel on the Kalalau side of Awa'awapuhi Valley.

When asked about his concern for the future of the park, Mr. Plews says that he feels that the leaseholders should have more control and responsibility like it was in his childhood. He says that he remembers a time when the lease was only five dollars a year but you had to maintain your property in a certain way like accepting and planting trees from the forestry service. He also said that the term of your lease was based on the condition of your property. If it was in excellent condition you got twenty years, ten or fifteen for good condition and five if the property was in bad shape. For this reason many leases have remained within certain families for many generations. He feels that the leaseholders play a major part in the functioning and maintenance of the park because of their connection to the lands.

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### Marsha Erikson

Marsha Erikson has been associated with Kōke'e Natural History Museum since 1987 and she is presently the director of the program. She is originally from the Big Island where she worked as a park technician for the National Park Service and later helped found the Volcano Art Center. She credits people such as Moses Keale, John Plews, the Pratt family and Aletha Kaohi for sharing their knowledge of the Waimea and Kōke'e area with her.

When asked about her knowledge of historic site within the park, Mrs. Erikson said that she has heard stories of canoe building within the park areas and hopes to one day identify exactly where it took place and interpret the site. She has also heard reference to an ahupua'a marker near where the NASA station is today. Mrs. Erikson mentions some superstitions that an area near the 13-mile marker is a gathering place for spirits who are not yet ready to walk down Polihale Ridge, the area that is believed to be the crossing over point for Hawaiian spirits. She says that Halemanu is known for sightings of night marchers.

Mrs. Erikson also talks about historic trails such as the trail which leads from Kōke'e down into Kalalau, the trail that follows the canyon rim from Kukui Trail to Kawaikoi and then to Waialae and up into the Wai'ale'ale area, and also various trails through the Alaka'i Swamp such as the one that Queen Emma followed in her 1871 journey. Mrs. Erikson talked about traditional practices that have survived within the park such as hunting and the gathering of palapalai, 'a'ali'i, mokihana, and maile. She also spoke of events that have become "new tradition" for Kaua'i locals such as the

Banana Poka Roundup and the Queen Emma Festival. These festivals teach the public about the historic value of the park and also about the need to care for the native environment.

Mrs. Erikson feels that decisions about the future of the park needs to be made with cultural values the primary value. She feels that interpretative programs, public information exhibits, picnic areas, guided hikes and an extension of the park to include the Russian Fort are also needed to educate the public and reconnect the local community with the Waimea and Kōke'e areas.

### Kaipo Akana

Mr. Kaipo Akana was born in Waimea, Kaua'i in 1934. He began hunting and exploring the mauka regions of Waimea as a youth. He is currently employed by Cultural Surveys Hawai'i as a field and lab technician on the Kaho'olawe Island Ordinance Clearance project. Mr. Akana credits his grandfather, who worked as a cowboy for the Robinson family, and Mr. Kanakanui Kuwalu for teaching him the traditions and lore of Waimea.

Mr. Akana's grandfather, Nohili Naumu, spent much time with him in Waimea Canyon teaching him the many place names of the valleys and waterfalls. Mr. Naumu passed on the knowledge that he had gained from growing up as the son of a rice farmer in part of Waimea Canyon called Kukuiopú. Mr. Akana recalls his grandfather and Mr. Kuwalu taking him through all of the valleys and rivers in the canyon, pointing out old house sites, and traveling from various parts of the Nā Pali to Kōke'e via the traditional Hawaiian trails.

As far back as the 1940's, Mr. Akana recalls people from Waimea and the surrounding areas going up to the mauka areas to hunt for wild pig, goats and game birds (deer had not yet been introduced). He also recalls people going up to the Kōke'e area for traditional gathering of maile lau li'i, mokihana, and liko lehua. When asked about his knowledge of any archeological or culturally significant sites in the park area, he could remember a few. Mr. Akana spoke of the Kanaloahuluhulu meadows where Hawaiian Royalty and their families used to visit. He also recalled traditional trails that were on the canyon side of where the Kōke'e road is located today. He also spoke of a horse trail (part of which is known today as Kukui Trail) which led from the bottom of the canyon all the way back to the Kawaikōi area. He has not seen any archeological sites within the park and does not recall any gathering of medicinal herbs.

Mr. Kaipo Akana has lived the majority of his life in the Kōke'e and Waimea Canyon State parks. He has a great deal of knowledge which was passed down from kupuna who had also spent the majority of their lives in the area. He credits them with the knowledge and love of the area that he has today. He feels that it is important to pass on the history of the area and preserve it for future generations.

Roselle Bailey

Kumu hula Roselle Keli'ihonipua Bailey was born and raised on Maui, lived in Kaumakani, Kaua'i between 1972 and 1994 and then returned to Maui. Mrs. Bailey learned the lore and traditions of Kaua'i through hula, chants and kupuna who shared their knowledge with her. She is currently involved with Kōke'e State Parks through non-profit educational activities presented by Ka 'Imi Na'auau 'O Hawaii Nei.

Kumu Bailey says that her interest in learning about Kaua'i's history began when she started researching chants that she was learning. She mentioned the chant "Kaulilua ike anu o Wai'ale'ale". She also credits people such as Kauai Zuttermeister, Aletha Kaohi and Sarah Kalikea for passing on their knowledge to her.

Kumu Bailey states that for her, the Koke'e and Waimea Park areas are "not just for recreation, it's a living area of a living culture." When asked about her knowledge of gathering practices in the area she spoke of people whose sole job was to go into the forest. There were canoe makers, house builders, wood workers, hunters and feather gatherers.

Kumu Bailey says that she feels that it is good that the land is open to the public but the "bad part is the difficulty of management, education and maintaining the number of vehicles, roads and trails in more correct ways so that there aren't ruts and erosion." She is also concerned that the parks not be taken away from the local people, that their sacred and secret places remain that way. In closing, Kumu Bailey says that "Waimea- the district which includes Kōke'e State Park- is a very rich, viable and important part of Hawaiian history, Hawaiian culture. Its natural resources need to be kept vibrant and alive, without the intrusion of modern habitat. People, not only of the Hawaiian culture but of all cultures, can return to the seclusion [of the] land to feel

spiritually at peace, ultimately rejuvenated."

***Kōke'e Trailhead and Parking Improvements  
Final Environmental Assessment***

***Appendix F  
Comments Received by Letter and Email on  
DEA and Responses Sent***

#48864

Launa → Please follow up

LINDA LINGLE  
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON  
DIRECTOR

RECEIVED  
STATE PARKS

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
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E-mail: oeqc@health.state.hi.us

Jul 26 2006 10:23

July 26, 2006

Daniel Quinn  
Division of State Parks  
Department of Land & Natural Resources  
PO Box 621  
Honolulu, HI 96809

Attn: Lauren Tanaka

Subject: Draft environmental assessment (EA), **Kokee Trailhead & Parking Improvements**

Dear Mr. Quinn:

We have the following comments:

**Two-sided pages:** Please print on both sides of the pages in the final document to reduce bulk and save on paper. HRS 342G-44 requires double-sided copying in all state and county agencies, offices and facilities.

**Segmentation:** An environmental impact statement (EIS) for *Kokee and Waimea Canyon State Parks Master Plan* was recently submitted to our office. The EIS law prohibits segmentation of larger projects and requires that full disclosure of impacts be made on projects in their entirety. The activities proposed in this EA should have been disclosed in the EIS with cumulative impacts and associated mitigation measures detailed in that document. In the final EA discuss cumulative impacts of the trailhead and parking improvements relative to state parks' regional improvements.

**Parking lots:** The section on the Water Tank Trailhead parking area states that "Approximately 25 cars can be accommodated" with 35 for Kanaloahuluhulu Overflow Parking. Are these accommodations current or planned? If planned, what are the current capacities? In the final EA briefly note current capacity and planned capacity for all 3 lots.

**Construction Impacts:** In the final EA list the impacts to visitor parking and traffic during the construction period and how will you mitigate them.

**Permits:** Will grading permits be required for the parking areas? If so, add this to your list of permits in the final EA.

Daniel Quinn  
July 26, 2006  
Page 2

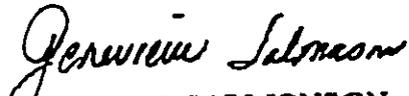
Paving: Hawaii Revised Statutes 103D-407 requires the use of recycled glass in paving materials whenever possible. In the final EA indicate if you will follow this requirement.

Abbreviations: "HT" and "CCC" appear in the draft EA text without definition. In the final EA define these terms at their first occurrence.

Funding: One source of funding at \$30,000 is In-Kind Goods & Services, which will be "sought as needed to complete the project." Have these fundors committed to these donations? If they have not and funding lapses, will the project continue to completion?

If you have any questions, call Nancy Heinrich at 586-4185.

Sincerely,

  
GENEVIEVE SALMONSON  
Director

c: Marsha Erickson

LINDA LINGLE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

DIVISION OF STATE PARKS  
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PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR - LAND

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BIATHLON AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAUNAKAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

September 20, 2006

Ms. Genevieve Salmonson, Director  
Office of Environmental Quality Control  
235 S. Beretania St., Suite 702  
Honolulu, HI 96813

Dear Ms. Salmonson:

This is in response to your letter of July 26, 2006 regarding the draft environmental assessment (EA) for the Kōke'e Trailhead and Parking Improvements. We offer responses in the respective order of your comments.

The final EA has been printed on both sides of a page.

The draft environmental impact statement (EIS) for the Master Plan of Kōke'e and Waimea Canyon State Parks discusses the proposed trailhead and parking improvements in general while the draft EA provides a more detailed description of the 3 areas where these proposed improvements are planned. It was not intended that the 3 projects that are the subject of the draft EA be considered a segmentation of the overall improvements proposed in the draft Master Plan.

Funding was available for improvements to the Canyon Trailhead, Water Tank Trailhead, and Kanaloahuluhulu Parking Area. To access the Canyon Trail, the most popular hiking trail in the parks, people walk down a dirt road that only four wheel drive vehicles can safely travel. On rainy days, with hikers and 4 wheel drive vehicles competing for space on the dirt road, the situation can become hazardous. The improvements will make the trail access safer and more enjoyable for park users by taking them off the road.

The existing parking area at the Water Tank Trail can accommodate 7 cars. Enough space for an additional 16 cars will be provided upon completion of this project.

Other than a few minor impacts such as noise and dust caused during the construction period, the projects are not anticipated to have significant impacts to the parks visitors or the parks environment.

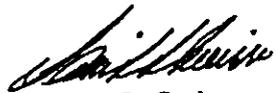
None of the three parking areas will be paved. As such, the type of paving material to be used is not an issue.

We could not find the acronym HT in the document. CCC refers to the Civilian Conservation Corps.

We hope to have adequate funds available to complete the proposed improvements, with the help of volunteers.

We appreciate the concerns expressed in your letter of July 26, 2006. Should you need additional information, please feel free to contact Lauren Tanaka at 587-0293.

Very truly yours,



Daniel S. Quinn  
State Parks Administrator

copies to: Wayne Souza  
Katie Cassell



"Hay, Frank O CIV PMRF"  
<frank.hay@navy.mil>  
07/18/2006 12:01 PM

To <Lauren.A.Tanaka@hawaii.gov>  
cc  
bcc  
Subject RE: Draft EA for the Kokee Trailhead

Seems like an odd configuration on the ground. Frank

-----Original Message-----

From: Lauren.A.Tanaka@hawaii.gov [mailto:Lauren.A.Tanaka@hawaii.gov]  
Sent: Tuesday, July 18, 2006 9:22  
To: Hay, Frank O CIV PMRF  
Subject: Fw: Draft EA for the Kokee Trailhead

Frank:

FYI.

Lauren  
587-0293

----- Forwarded by Lauren A Tanaka/DLNR/StateHiUS on 07/18/2006 09:21 AM  
-----

Wayne H

Souza/DLNR/StateH

iUS

To

Lauren A

07/18/2006 09:11

Tanaka/DLNR/StateHiUS@StateHiUS

AM

cc

Subject

Fw: Draft EA for the Kokee  
Trailhead

Lauren,  
The handicapped parking stall is to the right of the access road to  
Puuhinahina tank. The parking expansion will more or less use the  
current access road as its roadway. There's no problem.  
Wayne.

----- Forwarded by Wayne H Souza/DLNR/StateHiUS on 07/18/2006 09:09 PM  
-----

"Hay, Frank O CIV  
PMRF"  
<frank.hay@navy.mil>  
To <Lauren.A.Tanaka@hawaii.gov>  
cc 07/14/2006 10:28 AM <Wayne.H.Souza@hawaii.gov>,  
<Gayson.Y.Ching@hawaii.gov>  
Subject RE: Draft EA for the Kokee  
Trailhead

Thanks, Lauren. I've extracted the three pages with the site plans and  
will circulate them for review. I'm attaching the extract to this  
email. However, a handicapped parking space is going in (now in  
process, although the concrete may not have been poured) immediately to  
the right or directly in front of the existing "water tank dirt road".  
This may be a problem for circulation that should be addressed and  
deconflicted by your engineering division. As a result, I am copying  
Wayne and Gayson on this email .....

Me ke aloha,

Frank

-----Original Message-----

From: Lauren.A.Tanaka@hawaii.gov [mailto:Lauren.A.Tanaka@hawaii.gov]  
Sent: Friday, July 14, 2006 9:28  
To: Hay, Frank O CIV PMRF  
Subject: Draft EA for the Kokee Trailhead

Frank:

As requested, (See attached file: DEA for Kokee Trailhead.doc) (See attached file: DEA for Kokee Trailhead - Appendices.pdf)

If you have questions, please consult with Wayne Souza or Katie Cassel. My role is only to process the EA, I have very little knowledge about the project.

Lauren  
587-0293

(See attached file: 2006 July 23 Kokee Trailhead - Site Plans.pdf)



Lauren A  
Tanaka/DLNR/StateHIUS  
07/14/2006 09:28 AM

To "Hay, Frank O PMRF" <frank.hay.ctr@navy.mil>  
cc  
bcc  
Subject Draft EA for the Kokee Trailhead

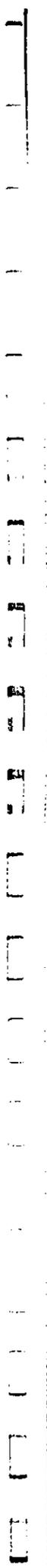
Frank:



As requested, DEA for Kokee Trailhead.doc DEA for Kokee Trailhead - Appendices.pdf

If you have questions, please consult with Wayne Souza or Katie Cassel. My role is only to process the EA, I have very little knowledge about the project.

Lauren  
587-0293



Erikk Coopersmith  
P.O. Box 42  
Waimea, HI 96796  
808-335-0710

DLNR, Division of State Parks  
P.O. Box 621  
Honolulu, HI 96809  
Attention: Lauren Tanaka

July 9, 2006

Aloha,

I am writing this letter in response to the Draft Environmental Assessment in the OEQC's Environmental Notice regarding the proposed Koke'e Trailhead and Parking Improvements (HRS 343 DEA).

In general, I am in support of improving trailhead parking lots and trail access in Koke'e State Park. I think a gravel parking lot sounds good, but I'm concerned about how such areas will fare through Koke'e winters. These parking lots will quickly become pot-holed muddy or dusty messes, and will be in frequent need of repair and re-gravelling. I favor circumspect use of pavement, keeping the 'footprint' as small as possible while providing the necessary parking. Of course, paved parking lots too require engineering, patching and occasional re-surfacing.

The information provided about these 3 proposed parking lots is simply insufficient. Foremost, I have no idea of where EXACTLY these parking lots are going to be. The DEA gives a general location, but the description and map are too vague to really be helpful. Without knowing the specific location being referred to I can't make an informed assessment of this proposal.

The DEA says "Trail construction at the Water Tank Parking Area will involve clearing of vegetation for approximately 500 feet in length." Where is this area?

It provides very specific square footage for each parking lot, showing me that considerable planning has already gone into this project; please release more detailed information and site maps for public review.

Sincerely,

Erik Coopersmith

cc: Hui o Laka, Marsha Erickson  
cc: Office of Environmental Quality Control

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF STATE PARKS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

October 6, 2006

Erik Coopersmith  
P.O. Box 42  
Waimea, HI 96796

Dear Mr. Coopersmith:

This is in response to your letter of July 9, 2006 requesting more detailed information and site maps for the proposed parking improvements described in the draft environmental assessment (DEA) for Kōke'e Trailhead and Parking Improvements.

Unfortunately, the drawings provided in the DEA are the only ones available. May I suggest that you consult with either Wayne Souza, Kaua'i Parks District Superintendent or Katie Cassel as they are more familiar with the project than myself. Thank you for sharing your concerns.

Sincerely,

A handwritten signature in cursive script that reads "Lauren Tanaka".

Lauren Tanaka

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL  
RESOURCES  
COMMISSIONER IN CHARGE  
MANAGEMENT

ROBERT K. MASUDA  
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