

**2003 FEIS HAWAII
KEKAHA KAI STATE PARK CONCEPTUAL PLAN
2 OF 3**

JUN 8 2003

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Kekaha Kai State Park

North Kona, Island of Hawai'i

Park Development Report and Final Environmental Impact Statement

APPENDICES A - L

Applicant:
Department of Land and Natural Resources
Division of State Parks
State of Hawai'i

Prepared By:
Group 70 International, Inc.
Architecture • Planning • Interior Design • Environmental Services
Honolulu, Hawai'i

May 2003

**Kekaha Kai State Park
Park Development Report and
Environmental Impact Statement**

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- Appendix H:** Ala Kahakai National Trail Study – Record of Decision. U.S. Department of Interior. (June 1998).
- Appendix I:** Second Quarterly Baseline Period. Water Quality Monitoring Report in Support of the Development at Maniniowali. Richard Brock, PhD. (December 2001).
- Appendix J:** .Kekaha Kai State Park Community and Task Force Meetings 1994-2002
- Appendix K:** Archaeological Reconnaissance Survey: Kekaha Kai State Park, Mahai'ula Section. Kaulana & Mahai'ula Ahupua'a. DLNR, Division of State Parks. (April 1998).
- Appendix L:** Kekaha Wai 'Ole o Na Kona – A Report on Archival & Historical Document Research and Oral History Interviews. Kumu Pono Associates. (March 1998).

Appendix A

Glossary of Terms Used

KEKAHA KAI STATE PARK

• Draft Environmental Impact Statement •

APPENDIX A. GLOSSARY

- 'A'ā*: A rocky, stony, rough form of lava flow.
- ADA: Americans with Disabilities Act (1990). Law requiring access for people with disabilities to certain types of facilities.
- Ahu*: Heap, pile, collection, mass, altar, or shrine of stones; cairn; a trap-like enclosure made by fishermen for fish to enter.
- Ahupua'a*: A land division of old Hawai'i generally stretching from the mountains to the sea; so called because the boundary was marked by a heap (*ahu*) of stones surmounted by an image of a pig (*pua'a*), or because a pig or other tribute was laid on the altar as a tax to the chief. The landlord or owner of an *ahupua'a* might be a *konohiki*.
- Ala Kahakai: "Trail by the Sea" A coastal trail running from Kawaihae to Hawai'i Volcanoes National Park proposed for designation as a National Historic Trail. It would incorporate remnants of older historic trails and more recent paths to create a continuous walk.
- Ali'i*: Royalty or chiefly rank.
- Anchialine Ponds: Brackish water ponds with no direct connection to the ocean; often populated with indicator flora or fauna such as red shrimp of the genus *Halocardina*.
- Carrying Capacity: Concept referring to the sustainable capacity of a system. The capacity varies with many factors such as use, technology and the type of resource base.
- Day moorings: Buoy moorings anchored permanently to the ocean floor. Allows boats to tie up and stay in one location without dropping anchors to the ocean floor.
- Eco-friendly: Facilities and methods that have minimal or no impact on the receiving environment. Blends smoothly into the existing landscape.
- Endemic: Native only to Hawai'i, found native nowhere else in the world.
- Historic: Post contact period in Hawaiian history; since 1778.
- 'Ili'ili*: Small, smooth, weather worn pebbles.
- Indigenous: Native to Hawai'i and some other parts of the world.

KEKAHA KAI STATE PARK

• Draft Environmental Impact Statement •

Kahuna lā'au lapa'au: Teacher, medicine man knowledgeable in the arts of healing and native flora, fauna and natural history.

Kanaka maoli: Native Hawaiian, the indigenous people, original settlers of Hawai'i.

Kapu: Restricted.

Kekaha: The region of land in which the Kekaha Kai State Park is located. The meaning of the place name is barren or desolate.

Kīpuka: Variation or change in form as in a calm at sea or an opening in a forest- *puka* (hole). A pocket of land left untouched by a lava flow.

Ko'a: Fishing grounds usually identified by lining up with nearby landmarks; Shrine, often consisting of circular piles of coral or stone, built along the shore or by ponds or streams, used in ceremonies as to make fish multiply.

Kōnane: A Hawaiian game similar to checkers played with stones on a flat stone surface.

Konohiki: Person who manages the *ahupua'a* under a chief. Usually a lower ranking *ali'i*.

Kupuna: Family elder.

Makai: Towards the ocean.

Mana: Spirit, power, life force.

Mauka: Towards the mountain.

MFMA: Marine Fisheries Management Area.

Moi: Chief *ali'i* of the island; king.

'Ohana: Family, relative, kin group.

Pāhoehoe: Smooth form of lava flow often with rope-like forms. A generally faster moving lava flow than the rougher *'a'ā* flows.

Papamū: *Kōnane* game platform; checkered, plaid.

Polynesian Introduction: Not endemic or indigenous to Hawai'i but brought in by the early Polynesian settlers of the island.

Xeriscape: Very arid landscape. Dry land plants and forms.

W. B. Kukio: Private company. W.B. Kukio Resorts LLC.

Appendix B
Utilities

KONA COAST STATE PARK

A. EXISTING CONDITIONS

1. Water System

There are no Hawaii County waterlines near the proposed Kona Coast State Park. The nearest Department of Water Supply reservoir is the Keahole Reservoir located across Queen Kaahumanu Highway mauka of Keahole Airport (approximately 3 miles south of the project).

Fire protection is required for the caretaker's house, maintenance facility and comfort station since these are structures on State property. One alternative for fire protection is to provide a water catchment system in accordance with NFPA 1231. The size of the water catchment required for each structure is dependent on the size (volume) of the structure and the construction materials (or combustibility of the structure). The volume of water required for fire protection is in addition to the water required for domestic use and irrigation use (if any). However, having a water catchment for fire protection may be difficult since the rainfall in this area may not be adequate.

Other alternatives for water supply include tapping into the County water system 3 miles away or drilling a well. This would be infeasible for the small quantities needed. The most feasible alternative for water supply may be to build a water tank that would be adequate for both domestic use and fire protection or build two tanks - one for fire protection and one for domestic use and truck water in periodically.

2. Drainage System

There are no drainage improvements onsite. Storm runoff from the site flows overland following the natural slope conditions and ultimately drains into the ocean. Drainage improvements should be limited to swales/ditches and road culvert crossings.

3. Sewer System

There is no sewer system onsite. A few portable sanitary toilets are located near Mahaiula Bay for patrons of this area. The nearest wastewater facility is the Kealakehe Wastewater Treatment Plant located across the Kona Industrial Park (approximately 6 miles south of the proposed park). Cesspools would not be allowed in this area as it is considered a critical wastewater disposal area. Possible wastewater disposal systems include septic tank with leaching field or a storage tank which would be pumped as required.

4. **Electrical and Communications Systems**

Existing overhead 69 KV and 12. 47 KV lines and telephone lines run parallel to Queen Kaahumanu Highway (approximately 300 feet to 400 feet east of the highway). The electrical and telephone lines extend past the project to Kaupulehu. New electrical and telephone lines from the proposed park facilities can connect to these existing lines.

5. **Roads**

There is an existing access road to Mahaiula Bay from Queen Kaahumanu Highway labeled for 2-wheel drive on USGS maps. However, this road is badly rutted and more suited for 4-wheel drive vehicles. There are other dirt roads for 4-wheel drive vehicles to Awakee Bay, Kahoiawa Bay and Kua Bay. The proposed paved roads could utilize the existing intersections with Queen Kaahumanu Highway.

Appendix C
Day Use Mooring

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RECEIVED
DIVISION OF
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION

APR 25 3 46 PM '96

April 25, 1996

TO: Ralston Nagata, Administrator
State Parks

FROM: David E. Parsons *Parsons*
State Boating Administrator

SUBJECT: Day Use Moorings

In response to your memo regarding Day Use Moorings 30-35 off the West Coast of Hawaii, please be advised that the moorings have not yet been installed.

Although these are high priority sites, resources are not available at the present time. We do not know when installation will occur.

The coordinates listed in the Draft EA are approximate. The actual coordinates will be provided once the installation team surveys the bottom and places the pins. The proposed sites will be in the near vicinity though.

We do not have the appropriate charts to convert the site positions to your topography map, attached, but we have shown what we believe will be the areas to be used.

Attach.

[Handwritten signature]

ADMINISTRATOR
 ADMIN.
 PLAN BR.
 RES. MGT. BR.
 CONTROL
 ENV. REC. PLAN.
 CLERICAL STAFF
 ADMIN. ASST.
 INTERP. BR.

FOR:

CIRCULATE/POST/STAFF RM
 COMMENTS & REC.
 DRAFT REPLY
 FILE
 FOLLOW UP *as needed*

153

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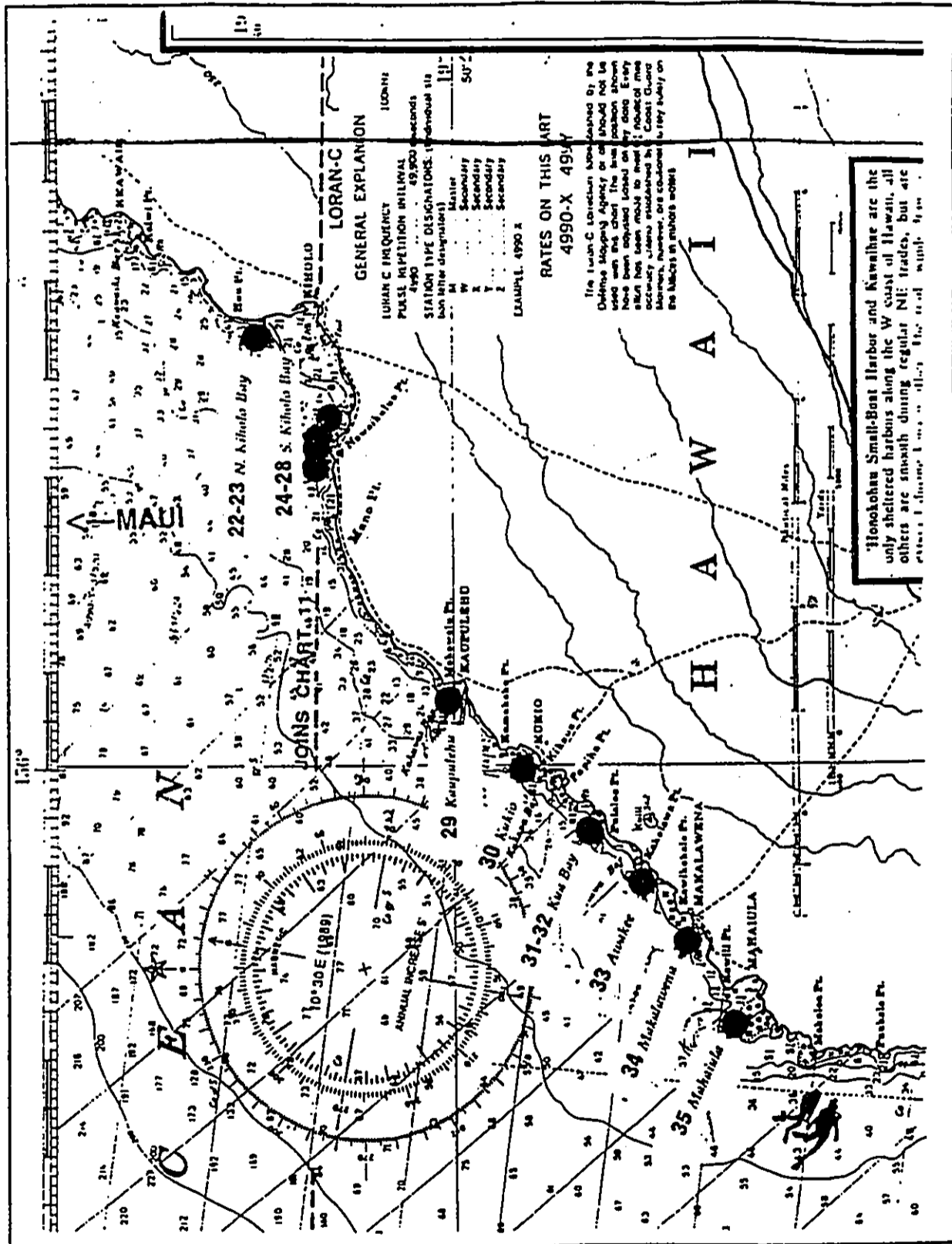
		19-51.20	155-56.55	40'-45'	rock, coral heads, sand areas	Near Nawaikulua Pt.
25	South Kiholo Bay	19-51.27	155-56.65	40'-45'	coral, rock, sand areas	Near Nawaikulua Pt.
26	South Kiholo Bay	19-51.36	155-56.83	40'-45'	coral, rock, sand areas	Near Nawaikulua Pt.
27	South Kiholo Bay	19-51.30	155-56.99	45'	coral, rock, sand areas	South of Nawaikulua Pt.
28	South Kiholo Bay	19-51.21	155-57.10	40'	coral, rock, sand areas	Near Mano Point
29	Kaupulehu	19-50.00	155-59.50	40'-45'	coral, rock, sand areas	South Kahuwai Bay
30	Kukio	19-49.50	156-05.00	35'	coral, rock, sand areas	N of Kikaua Pt.
31	Kua Bay	19-48.50	156-01.00	35'	coral, rock, sand areas	Just N of Kua Bay
32	Kua Bay	19-48.30	156-01.00	40'	rock, coral, sand areas	Kua Bay area
33	Awakee	19-48.00	156-01.50	40'-45'	coral, rock, sand areas	South of Puu Kuili
34	Makalawena	19-47.50	156-02.00	40'	rock, coral, sand areas	S. of Kahoiawa Pt.
35	Mahaiula	19-46.80	156-03.00	40'-45'	rock, coral, sand areas	Off State Park

A-19

Draft Environmental Assessment: Day-Use Moorings Appendix A - Descriptions of Proposed Sites

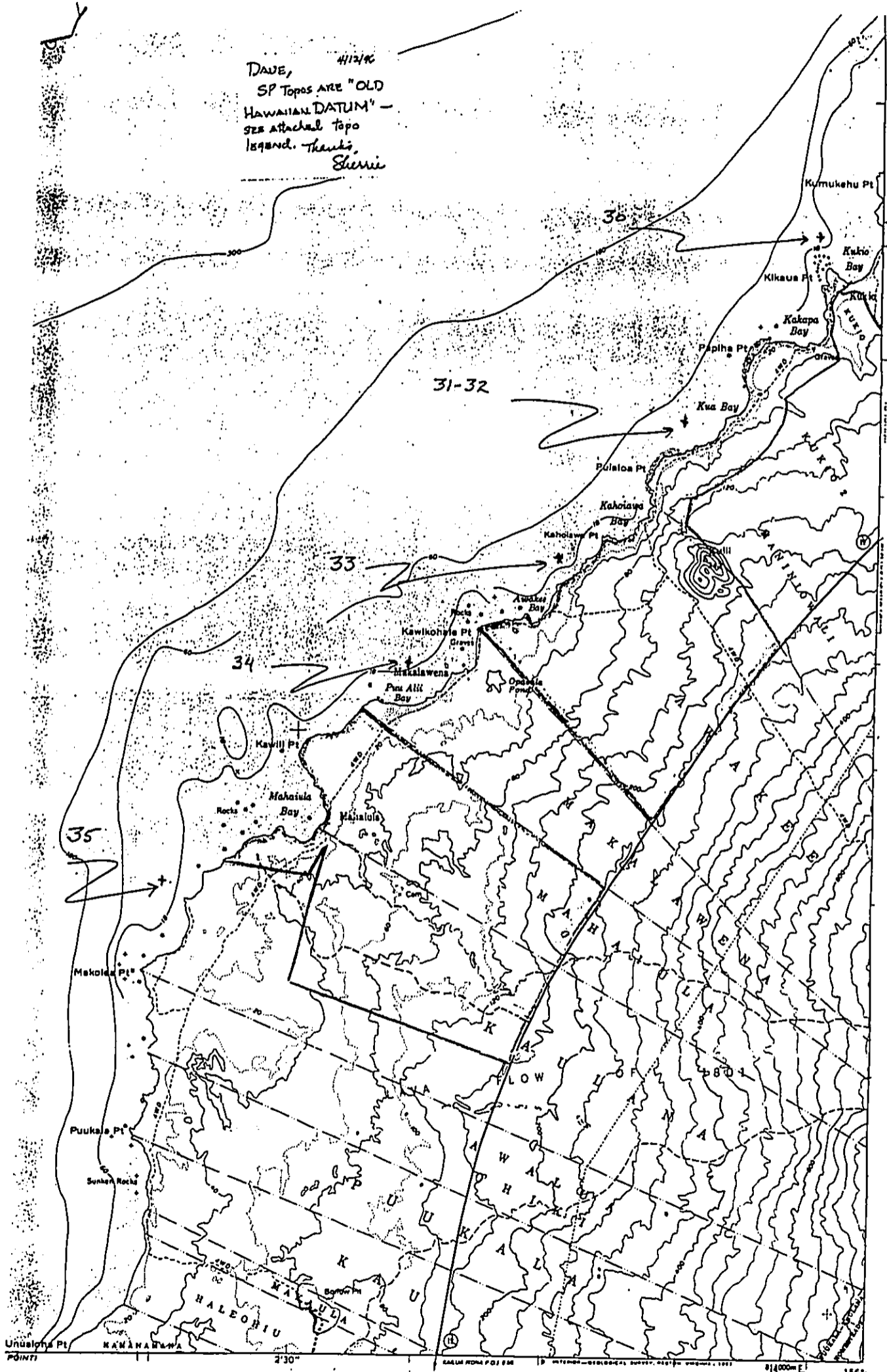
NO.	NAME	LATITUDE (N)	LONGITUDE (W)	DEPTH	BOTTOM CONDITIONS	NOTES
36	Airplane wreck	19-57.00	156-03.10	70'	rock ledge, corals	Wreck is close to ledge
37	Keahole Pt.	19-44.05	156-03.50	45'-50'	rock ledge, corals	Just N of Keahole Pt.
38	Black Hole	19-43.20	156-03.00	60'	rock areas with coral	South of Keahole Pt.
39	Dottie's Reef	19-43.00	156-03.00	45'	coral, rock arches	N. of Golden Arches
40	Turtle Pinnacle	19-41.00	156-02.00	30'-35'	rock, coral with sand areas	N. of Honokohau Hrbr, need NPS and Pai OK
41	Turtle Pinnacle	19-41.00	156-02.10	40'	rock, coral with sand areas	N. of Honokohau Hrbr, need NPS and Pai OK
42	Manta Ray Beach	19-40.50	156-01.55	30'	rock, coral with sand areas	S. of Honokohau Hrbr, need NPS and Pai OK

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DAVE, 4/12/46
SP TOPOS ARE "OLD
HAWAIIAN DATUM" -
SEE ATTACHED TOPO
LEGEND. Thanks,
Sierri



Appendix D
Wildlife Resources

**SURVEY OF WILDLIFE RESOURCES
KONA COAST STATE PARK, NORTH KONA, ISLAND OF HAWAII**

**Prepared for
Group 70 International, Inc.
925 Bethel Street, Fifth Floor
Honolulu, Hawaii 96813-4307**

**by
Tim J. Ohashi
Certified Wildlife Biologist
333 Aoloa St., Unit 329
Kailua, HI 96734
January 1997**

1.0 INTRODUCTION

Field surveys were made from December 6 to 8, 1994, to assess the wildlife resources on land parcels included within Kona Coast State Park, in the District of North Kona, on the west side of the Island of Hawaii. Detailed assessments were made for the recreational area around Mahaiula Bay and Mahaiula ahupua'a. cursory field inspections were made for the larger area of the Park which included the ahupua'a of Awake'e, Manini'owali, Kukio 2, and Kaulana. Wildlife accounts within these ahupua'a and for Makalawena, which was not visited, are based on the reports of past biological inventories and studies of the area. The objectives of this work are:

- To provide a description of the wildlife and habitat components within the project area.
- To identify wildlife species that may be considered by some, to be important, and, therefore, subject to more careful consideration when assessing the project's impact on these populations and their habitats.
- To identify sightings or historical records of indigenous wildlife species and those currently listed by the U.S. Fish and Wildlife Service, the National Marine Fisheries Service or the State of Hawaii as Threatened or Endangered, and thereby, subject to protection, and possible enhancement of the habitat.
- To recommend appropriate measures to manage wildlife habitat or mitigate the impacts to certain important wildlife populations.

Various parcels that comprise Kona Coast State Park, and also Makalawena, which is presently not within park boundaries, were planned for residential or resort development. A number of wildlife surveys were made as part of the governmental regulatory processes involved in considering the proposed development projects. Detailed accounts of the wildlife resources have been made for Makalawena (Bruner 1986), Awake'e (Kjargaard 1986), and Awake'e, Kukio 2 and Manini'owali (Bruner 1990). The waterbirds that use Kapoikai Pond are surveyed each year, in January and August, by the Hawaii Department of Land and Natural Resources, Division of Forestry and Wildlife. The following discussions will reference these surveys as well as a special survey at Kapoikai Pond conducted by Morin (1994).

2.0 SITE DESCRIPTION

Kona Coast State Park is located in the District of North Kona on the Island of Hawaii. The Park is on the seaward slopes of Mt. Hualalai, between the ocean and the

modern Queen Kaahumanu Highway. The park includes the northern edge of Kaulana ahupua'a and extends approximately 7.25 km north to the northern portion of Kakapa Bay in the Kukio 1 ahupua'a. It does not include Makalawena, which effectively divides the Park into two separate units, but the State of Hawaii hopes to make the Park into one contiguous unit.

The area is generally flat to gently sloping with a substrate of a'a and pahoehoe lava flows of various ages. The dominant land feature is the cinder cone Pu'u Kuili, the top of which is 104 m above mean sea level. It is located along the northern boundary of the Awake'e ahupua'a.

The Park includes a significant portion of the coastal region of west Hawai'i, noted for scores of anchialine pools and ponds. These wetlands are found along the coast from Kailua to Kawaihae. The ecological significance of Hawaii's anchialine wetlands is the habitat they provide for various plants and animals that are either endemic to the Hawaiian Islands or are considered relatively rare (Ridgley and Chai 1990). Within the region the wetlands range in size from less than a meter across to the 6 ha (15 acre) Kapoikai Pond at Makalawena. Kapoikai Pond is categorized by the Waterbird Recovery Team as a core wetland site requiring protection to ensure the survival of endangered waterbird populations in west Hawai'i (USFWS 1994).

Kjargaard (1986) describes six major wildlife habitats in the area, they generally follow the vegetation types described by Char (1986).

1. Rocky and sandy coastline (Photo 1) are important for migratory shorebirds that forage along this sea and land interface, searching for invertebrates.
2. Anchialine pools and ponds (Photo 2) undergo several successional stages, ranging from young, rocky-bottomed ponds with little or no vegetation around their edges to older ponds which have sediment-laden bottoms and can support emergent vegetation (Char 1986). Surrounding the larger ponds are milo (*Thespesia populnea*), coconut (*Cocos nucifera*), water hyssop (*Bacopa monniera*), 'ohelo-kai (*Lysium sandvicense*), beach morning-glory (*Iponoea brasiliensis*) and scattered kiawe (*Prosopis pallida*). Several endangered waterbirds are associated with these wetlands (USFWS 1994), the Hawaiian duck or koloa (*Anas wyvilliana*), Hawaiian coot or alae keo keo (*Fulica alai*), and Hawaiian stilt or aeo (*Himantopus mexicanus knudseni*). Migratory ducks and shorebirds also use these ponds.
3. Strand vegetation is just landward of beaches and the rocky shoreline (Photo 3). Their development is often determined by the availability of freshwater and suitable substrate. The strand community at Mahaiula Bay was comprised of milo, beach heliotrope (*Messerschmidia argentea*), beach morning glory, kiawe, coconut, and pluchea (*Pluchea odorata*).
4. The closed kiawe forest (Photo 4) is generally along coastal areas where a thin layer of soil has developed. The crowns of the kiawe trees interlock, shading the

usually sparse understory. Many larger kiawe trees, some over 25 m tall make up this habitat type. This habitat type can be found around Awake'e Bay and in Makalawena.

5. Open kiawe forest is characterized by an open canopy of scattered small kiawe trees on pahoehoe or a'a (Photo 5). Many trees are only six to eight meters high. Ground cover is dense, usually dominated by the introduced fountaingrass (*Pennisetum setaceum*). Other grasses such as pilgrass (*Heteropogon contortus*), buffelgrass (*Cenchrus ciliaris*) and lovegrass (*Eragrostis tenella*) are also found. Ilima (*Sida fallax*) and haole koa (*Leuceana leucocephala*) are lightly scattered throughout the open forest (Char 1986). Both closed and open kiawe forests are contiguous and gradually grade into each other. They occur in patches within the study site, surrounded by large expanses of barren a'a and pahoehoe lava flows, or the grassland habitat type. The largest patch of kiawe forest extends from Kahoiawa Bay to Awake'e Bay to an elevation of about 42 m near Pu'u Kuili. Another large patch occurs around Kapoikai Pond in Makalawena. Two smaller patches of kiawe forest are classified in this report as components of the strand vegetation around Mahaiula Bay.
6. Grasslands are dominated by fountaingrass (Photo 6). Grasslands can be dense or sparse. Fountaingrass has spread onto both a'a and pahoehoe flows of various ages. The best grassland is on loose cinder-ash-pumice material, that can be found around Pu'u Kuili (Char 1986).

Mahaiula Bay

The primary survey site was the coastal area around Mahaiula Bay which is part of both the Mahaiula and Kaulana ahupua'a. The area accommodates ocean recreationists who take advantage of the white sand beach. The park is open from 9:00 a.m. to 8:00 p.m. There are picnic tables, a small pavillion, parking area, and life guard tower. An abandoned beachhouse of the Magoon family is within the survey site, and a grove of coconut trees approximately 0.2 ha, is on the north side of Mahaiula Bay. The habitat of the area is a strip of strand vegetation about 30 m wide. Kiawe, beach heliotrope, milo and naupaka (*Scaevola sericea*) comprise a mixed wooded area dominated by kiawe. There are two patches of strand vegetation in the day-use area.

The smaller patch to the south is separated from the large patch by 60 m of pahoehoe covered by fountaingrass. The smaller patch includes the picnic and parking area and is more heavily used by humans. It includes two anchialine ponds separated by the parking lot. The first pond is 5 m across, and under a closed canopy of kiawe trees, and does not appear important to wildlife because of its size and location. The second pond is about 10 m across, in the open and has been altered by humans. It supports a variety of emergent vegetation.

The beachhouse is located on the northern edge of the larger patch of strand vegetation. Small anchialine pools can be found along the trail leading past the coconut

grove. Milo trees are prevalent in the larger patch. The edge of this strand vegetation is 1.2 km from the Makalawena patch of kiawe forest.

3.0 METHODS

Field surveys were made on the project site on three consecutive days, December 6 to 8, 1994. The first day was used for an orientation of the park area around Mahaiula Bay, and for cursory inspections of wildlife and their habitat along jeep trails through Awake'e, Kukio 2, Mahaiula, Kaulana and Manini'owali. Access to Makalawena was not available, and therefore, it was not included in any aspect of the field work.

An afternoon bird census, from 3:40 p.m. to 4:30 p.m., was made on December 7, in the day-use area and strand vegetation that trims Mahaiula Bay. The purpose of the census was to determine the presence of birds that were active in the late afternoon. A direct count of all birds seen and heard was made by walking slowly through the center of the narrow crescent shaped, strand vegetation. From 4:50 p.m. to 5:30 p.m., the lava flows and fountain grasslands between Makalawena and Mahaiula Bay were scanned with a 7x35 pair binoculars for the presence of feral goats (*Capra hircus*) and donkeys (*Equus asinus*). In the late evening, observations were made from the Queen Kaahumanu Highway to determine the presence of bats and owls.

On the morning of December 8, from 6:35 a.m. to 7:20 a.m., a second bird count was made in the Mahaiula Bay area and strand vegetation beginning at dawn.

For all wildlife observations, a 7x35 pair of binoculars was used.

No small mammal trapping was made for the survey. Reliance was placed on careful searches for scats and tracks. These signs are reliable indicators of the presence of the small Indian mongoose (*Herpestes auropunctatus*), feral cats (*Felis catus*) and feral dogs (*Canis familiaris*). Additionally, interviews were made with Charles Sunera and Clayton Oshiro, Hawaii Division of State Parks employees, who worked at Mahaiula Bay and were familiar with the wildlife in Kona Coast State Park. Mr. Sunera trapped rats for the Hawaii Department of Health's Vector Control Branch and was, therefore, very familiar with the three species of rats and the mouse that are found in Hawai'i.

4.0 RESULTS AND DISCUSSION

Birds and Mammals are presented in two sections. Within each group, an annotated listing is presented beginning with a discussion of the species encountered during the December 6 to 8, 1994 survey period of Kona Coast State Park. The next list presents species that were not encountered during the December 1994 survey, but were recorded by other workers on earlier surveys. Many of these species were found in Makalawena, primarily at Kapoikai Pond, which was not part of the December 1994 survey. The third list are those species that are expected in the area but were not recorded by any scientific worker during formal surveys.

4.1 BIRDS

Recorded on Survey

Only 11 species of birds were actually detected during the afternoon and morning direct counts of the strand vegetation around Mahaiula Bay (Table 1). The Wandering Tattler and Pacific Golden Plover were the only indigenous species encountered, both are migratory winter residents. Both were associated with the anchialine ponds in the area of Mahaiula Bay. The remaining species have been introduced to Hawai'i and have become established as part of naturalized biotic communities.

Pacific Golden Plover (*Pluvialis fulva*) kolea

Two plovers were seen flying over the Mahaiula Bay. A third plover had established a diurnal territory at the larger anchialine pool next to the parking lot in the area of Mahaiula Bay. The plover defended its territory against a Wandering Tattler that had landed on the narrow berm in the middle of the pool. Another individual was observed at the anchialine pond at Awake'e.

Kjargaard (1986) found six plovers at the largest anchialine pool near Awake'e Bay. Bruner (1986) saw ten plovers at Kapoikai Pond. State of Hawaii records for Kapoikai Pond show one plover on August 26, 1993 and none on January 19, 1994. The Park does not have much preferred foraging habitat for the plover which are open fields, grassed lawns, and mudflats, but while some birds can be found along the rocky shoreline, in the open kiawe forest, in the fountain grass and on a'a flows, it is evident by these surveys, that there are not many plovers in the Park. Many locations appear to be suitable for pre-migration staging grounds but there is no evidence that the plovers use this area for the spring migration.

Wandering Tattler (*Heteroscelus incanus*) ulili

The ulili is a migratory shorebird and a winter resident to Hawai'i. It is a solitary bird and occurs in low numbers. One ulili was observed at the larger anchialine pool in the area of Mahaiula Bay. It had invaded the territory of a Pacific Golden Plover and was summarily repulsed.

Kjargaard (1986) writes that she saw two ulili between Kahoiawa Bay and Awake'e Bay, and one on the Awake'e side of Kawikihale Point. Bruner (1986) saw three ulili in three days of his survey of Makalawena, and five ulili along the rocky shoreline of Manini'owali, Kukio 2 and Awake'e (1990). State of Hawaii records of Kapoikai Pond show two ulili on August 26, 1993, none on January 19, 1994.

Japanese White-eye (*Zosterops japonicus*)

The most numerous species in the strand vegetation of Mahaiula Bay was the introduced Japanese white-eye. A flock moved through one portion of the area during the morning census, foraging high in the kiawe canopy. A total of 27 were counted in the morning. On the previous afternoon census, only two were counted. The disparity

between the afternoon and morning census may be attributed to a transient flock. Japanese white-eye frequently travel in flocks which can be joined by other species (Hawaii Audubon Society 1989). The distance between the strand vegetation of Mahaiula Bay, Makalawena and Awake'e Bay is not too great for Japanese white-eyes to move freely between these patches of preferred vegetation.

Kjargaard (1986) found Japanese white-eyes to be uncommon in the Awake'e ahupua'a. They were found only in the Awake'e Bay area where the kiawe forest was fairly dense, and where there were other tree species such as milo and coconut. For his surveys of Awake'e, Kukio 2 and Manini'owali, Bruner (1990) categorizes Japanese white-eyes as common. Bruner (1986) found Japanese white-eyes to be the most common species in Makalawena.

Yellow-Billed Cardinal (*Paoraria capitata*)

The introduced Yellow-Billed Cardinal was the second most common bird species within the area of Mahaiula Bay. Often in pairs, the birds frequented the picnic area, but were present throughout the strand community. They were often seen flying low over the ground and foraging on the ground. Yellow-billed Cardinal pairs were observed along the shoreline of Awake'e foraging in the litter understory on the edge of the closed canopy kiawe forest.

Kjargaard (1986) found the Yellow-billed Cardinal to be in moderate numbers in the closed canopy kiawe forest of Awake'e, and very rarely seen in the strand community. She found them, however, to be very abundant in the Honokohau area and throughout most of Kailua-Kona proper. Bruner found the Yellow-billed Cardinal to be abundant in both Manini'owali, Kukio 2, Awake'e (1990) and Makalawena (1986).

Gray Francolin (*Francolinus pondicerianus*)

The Gray Francolin are introduced gamebirds that were present throughout the Park in the open and closed canopy kiawe forest. There were many signs of scratching in the understory litter for food, which include both plant and animal matter. As many as 17 were counted in the strand community of Mahaiula Bay where a roost tree was found. The afternoon and morning count numbers were not very different. Preferring to walk and run rather than fly, these birds may be showing site fidelity to Mahaiula Bay where the next closest kiawe forest was 1.2 km away in Makalawena over very rugged a'a and pahoehoe flows. These birds were not present in the fountain grass covered lava flows of Mahaiula.

According to Kjargaard (1986), Gray Francolin could be found in large numbers in the closed canopy kiawe forest above of Awake'e Bay, and common throughout the entire ahupua'a. Bruner (1990) categorized them as being uncommon for Manini'owali, Kukio 2, and Awake'e. For Makalawena, Bruner (1986) found the Gray Francolin to be common, seeing a number of individuals in the kiawe forest at the edge of Kapoikai Pond.

House Finch (*Carpodacus mexicanus*)

Legally regarded as a Migratory Bird, and therefore, protected by federal regulations, the House Finch or Linnet is an introduced species to Hawai'i. It was the

fourth most common species encountered in the strand community of Mahaiula Bay. They were found foraging in and under the beach heliotrope trees that were an important component of the strand community. The beach heliotrope were fruiting in abundance, and the House Finches were feeding on the nuts of the small fruit.

In her report of her 1986 faunal survey of Awake'e, Kjargaard made no mention of House Finches. Bruner (1990) recorded House Finches in Manini'owali, Kukio 2 and Awake'e but not in any significant number. They were more common in Makalawena during his 1986 surveys (Bruner 1986).

Nutmeg Mannikin (*Lonchura punctulata*)

A small flock of 11 Nutmeg Mannikins were observed outside the count period on December 8. They were on the mauka side of the strand community on the fountain grass in close proximity to the strand community. They quickly flew into Kiawe branches when disturbed. No Nutmeg Mannikins were seen in the expanse of fountain grass that occurred throughout the Park.

Kjargaard (1986) made no mention of Nutmeg Mannikins in her Awake'e faunal survey report. Bruner (1990) found them in relatively low numbers in Manini'owali, Kukio 2, and Awake'e, but abundant in Makalawena (1986) within fountain grassland, kiawe thickets, and the ironwood (*Casaurina equisetifolia*) groves.

Common Myna (*Acridotheres tristis*)

A small number of Common Myna were seen on both days in the strand community of Mahaiula Bay. What appeared to be a family group flew into a milo tree on the morning of December 7. Common Myna do very well as a commensal species and therefore, are predictably present in coastal areas where human use is prevalent. They can also do very well in open forest habitat but they were not found outside the coastal strand community.

Kjargaard (1986) found a small population of Common Myna roosting at Awake'e Bay and foraging in the adjacent kiawe forest. Bruner (1990) found relatively low numbers in his surveys of Awake'e, Kukio 2 and Manini'owali. He found them to be common in Makalawena where they were in the wetland habitat, ironwoods and kiawe thickets.

Northern Cardinal (*Cardinalis cardinalis*)

One of the first birds to sing before dawn, the Northern Cardinal was very common in the coastal strand community of Mahaiula Bay. Up to seven individuals were observed during the two days of census. Northern Cardinals used the understory and shrubs of the strand vegetation, and are never numerically prominent because they space themselves in defended territories. The Northern Cardinal is introduced but is protected by federal treaty.

The Northern Cardinal was present both along the strand and in kiawe forest habitats in Awake'e, but most frequently seen in the closed kiawe forest near the coast (Kjargaard 1986). Bruner lists the Northern Cardinal as uncommon in both Awake'e, Kukio 2 and Manini'owali surveys (1990), as well as for the Makalawena survey (1986).

Zebra Dove (*Geopelia striata*)

Zebra Doves are primarily commensal species, being closely associated with human activity. They were foraging on the sand next to the picnic tables of the recreation area of Mahaiula Bay in the afternoon. No Zebras were detected in the morning, which is unusual given the presence of kiawe trees which they will use for both roosting and nesting. They could fly into the area from Makalawena.

Zebra Doves were present in small numbers in some parts of the strand habitat as well as in the closed kiawe forests in the vicinity of Awake'e Bay (Kjargaard 1985). Kjargaard did not consider them to be particularly abundant anywhere in the ahupua'a. Bruner (1990) lists the Zebra Doves as abundant in Awake'e, Kukio 2 and Manini'owali, and common in Makalawena (1986).

Spotted Dove (*Streptopelia chinensis*)

Two Spotted Doves were seen on the road through lava fields about 150 m from the parking lot of Mahaiula Bay. They flew south in to Kaulana over a'a when disturbed. No Spotted Doves were encountered in the strand community.

Kjargaard (1986) found Spotted Doves to be rare in the kiawe forest of Awake'e. One bird was seen at the base of Puu Kuili. Bruner (1990) found only two Spotted Doves in three days of survey of Awake'e, Kukio 2 and Manini'owali. At Makalawena, Bruner (1986) found only one Spotted Dove.

Recorded by Others

The following section describes birds that were not observed during the December 6 to 8, 1994, field survey of Mahaiula Bay, but were reported in areas within and proposed for Kona Coast State Park in surveys conducted by Kjargaard (1986) and Bruner (1986, 1990), DOFAW (1993, 1994), and Morin (1994).

Black-crowned night heron (*Nycticorax nycticorax hoactli*) auku'u

Black-crowned night herons are indigenous and common. They are nocturnal birds, and establish feeding territories at the edge of a pond or stream to catch fishes, crustaceans, insects and amphibians. They feed in solitude, but typically are found in communal roosting trees. These birds also nest communally in trees. One black-crowned night heron was observed flying along the shoreline of Awake'e. Droppings observed at the anchialine pond near Awake'e Bay indicated frequent use by the heron (Kjargaard 1986). Two herons were reported in the January 19, 1994 survey at Kapoikai Pond (DOFAW 1994)

Black Francolin (*Francolinus francolinus*)

Unlike the gregarious Gray Francolin, the Black Francolin is a solitary introduced gamebird. Its optimal habitat is generally wetter than the natural conditions that exist in the region, however, irrigation can change the area's suitability to the species. Only one

bird was heard between Kahoiawa Point and Awake'e Bay by Kjargaard (1986) in the open kiawe forest. Bruner (1990) reported three Black Francolin during surveys of Awake'e and Manini'owali and Kukio 2, and two Black Francolin during surveys of Makalawena (Bruner 1986).

Warbling Silverbill (*Lonchura malabarica*)

The Warbling Silverbill is an introduced species, first discovered established in Hawai'i in 1974. Kjargaard (1986) found two individuals in the open kiawe forest between Kahoiawa Point and Awake'e Bay. Bruner (1990) recorded six for his surveys of Awake'e, Kukio 2 and Manini'owali (Bruner 1990).

Yellow-fronted Canary (*Serinus mozambicus*)

The Yellow-fronted Canary is an introduced finch that prefers open, dry parkland habitat and open woods. It forms small flocks and forages on the ground for seeds and insects. The Yellow-fronted Canary has become very common along the Kona Coast (Hawaii Audubon Society 1989). Two individuals were seen between Kawikohale Point and Awake'e Bay, and appeared to be part of a larger group that used the ironwoods at Kawikohale Point, Makalawena (Kjargaard 1986). Bruner (1986) in his report of his survey of Makalawena, mentions that the Yellow-fronted Canary was not reported from the area prior to the discovery of the flock at Kawikohale Point. By 1990, they were abundant in surveys of Awake'e, Kukio 2 and Manini'owali (Bruner 1990).

Ruddy Turnstone (*Arenaria interpres*) 'akekeke

A migratory shorebird, the Ruddy Turnstones winter in Hawai'i. They occur in small flocks and frequent shorelines, mudflats and other moist open ground. They were not reported from Kapoikai Pond prior to Bruner's 1986 survey of Makalawena when he found six of these shorebirds.

Sanderling (*Calidris alba*) hunakai

Sandy beaches along the coastline provide ideal habitat for the Sanderling, a migratory shorebird that winters in Hawai'i. The only records of Sanderlings for the area were from Kapoikai Pond where they forage on exposed mudflats (Bruner 1986, DOFAW 1994).

Hawaiian Duck (*Anas wyvilliana*) koloa

The koloa is a small native duck and currently listed as an endangered species. Within the survey areas, Kapoikai Pond provides the only suitable nesting habitat for the koloa. Only one individual was observed in 1986, but none from 1982 to 1986 (Bruner 1986). More recently, no koloa were recorded during the August 26, 1993 and January 19, 1994 surveys conducted by the Division of Forestry and Wildlife (DOFAW 1994). On October 21, 1994, no koloa were observed in a survey conducted by Morin (1994).

Black-necked Stilt (*Himantopus mexicanus knudseni*) ae'o

The endangered black-necked stilt is endemic to Hawai'i. A stable small population of about 6 adult birds resides at Kapoikai Pond (Bruner 1986, DOFAW 1993, 1994, Morin 1994). The population is down from the 1960's and 1970's where 10 to 20 stilts were common (Shallenberger 1977 in Morin 1994). Stilts are believed to move along the coastline using the system of anchialine pools and ponds in the coastal region of west Hawai'i, going as far south as Aimakapa (Morin 1994). From January to September 1994, there was an outbreak of avian botulism at Kapoikai Pond and Aimakapa Pond which had some impact on the stilt population in the region (Morin 1994).

Hawaiian Coot (*Fulica americana alai*) 'alae ke'oke'o

Bruner (1986) reported an average of 20 Hawaiian coots at Kapoikai Pond over a three day survey period in August 1986. Recent DOFAW (1994) surveys found none on August 26, 1993 and only one during the winter survey of January 19, 1994. The outbreak of avian botulism from January to September 1994 at both Kapoikai and Aimakapa Ponds, nearly eradicated the Hawaiian coot population in West Hawaii (Morin 1994). In a survey of Kapoikai Pond on October 21, 1994, three coots were recorded by Morin (1994).

Northern Shoveler (*Anas clypeata*) koloa moha

Northern shovelers migrate to Hawaii during the winter. A total of 69 northern shovelers were recorded at Opeaula Pond on January 19, 1994 (DOFAW 1994). The 1993-1994 wintering population of northern shovelers were affected by the avian botulism outbreak at Kapoikai and Aimakapa Ponds from January to September 1994. At the start of the 1994-1995 wintering season, Morin (1994) reported 16 northern shovelers at Kapoikai Pond on October 21, 1994.

Northern Pintail (*Anas acuta*) koloa mapu

In January 19, 1994 two northern pintails were recorded by Division of Forestry and Wildlife, prior to the discovery of an avian botulism outbreak in the coastal region of west Hawaii (DOFAW 1994). Northern pintails wintering at Kapoikai Pond during the 1993-1994 season, were affected by the botulism outbreak (Morin 1994).

Expected but Not Recorded in Recent Surveys

Hawaiian Owl (*Asio flammeus sandwichensis*) Pueo

The Hawaiian Owl is an endemic race of the Short-Eared Owl (*Asio flammeus*). It is common on the island of Hawai'i. The population on the island of Oahu is officially listed as endangered by the State of Hawai'i. The Hawaiian owl is most active at dawn and dusk but can be seen in the middle of the day, foraging for insects and rodents. No Hawaiian owls were recorded in formal surveys conducted within parcels of Kona Coast

State Park (Kjargaard 1986, Bruner 1990) or Makalawena (Bruner 1986). The park supports habitat that is suitable for their use: open forests and grasslands. Those familiar with the area indicate that they are present (Kjargaard 1986).

Common Barn Owl (*Tyto alba*)

The Common Barn Owl was introduced to Hawai'i in 1958 (Hawai'i Audubon Society 1989). It is primarily nocturnal in its activities, preferring the same habitats, open forests, grasslands, and pastures, that are used by the endemic Hawaiian Owl. Both owls feed on insects and rodents. No Common Barn Owls were recorded during formal surveys of the parcels within Kona Coast State Park (Kjargaard 1986, Bruner 1990) or in Makalawena (Bruner 1986).

4.2 MAMMALS

Recorded on Survey

Feral goats (*Capra hircus*)

Signs of goat rubbings against kiawe were observed in the strand community of Mahaiula Bay. Dried pellets were abundant within the a'a flow near the beach house. On December 7, following the afternoon bird census, six goats were observed through binoculars slowly moving eastward over a'a and pahoehoe flows between Mahaiula and Makalawena, about 400 m. from the Magoon beach house. There were three adult males in association with one adult female, her juvenile female and probably another of her female offspring from a previous breeding. All goats were light in color: grays and light browns. They were foraging and moving through the fountaingrass.

Kjargaard (1986) reported skeletal remains and pellets throughout Awake'e, although she did not observe a live goat. She surmised from the density of the sign, that the goats were once very abundant. Bruner (1990) mentions seeing feral goats in Awake'e, Kukio 2, and Manini'owali. He describes seeing up to 30 goats in Makalawena, feeding in the emergent vegetation of Kapoikai Pond and in the grasslands east of the pond. According to Charles Sunuma (pers. comm.), about 25 goats move between Makalawena and Mahaiula. Springer (1986) reports that these goats are descended from herds used by families who once lived in the area.

Feral cat (*Felis catus*)

Feral cat scats were found on the southern tip of the strand community, indicating the presence of the species around Mahaiula Bay.

Charles Sunera (pers. comm.) confirmed the presence of one cat living at Mahaiula Bay. Kjargaard (1986) found abundant scats on the top of Pu'u Kuili. She determined that cats were very common in Awake'e. Bruner (1990) mentions cats as being found on his surveys of Awake'e, Kukio 2 and Manini'owali. Bruner (1986) also found scats and made one observation of a cat in Makalawena.

Recorded by Others

Hawaiian Hoary Bat (*Lasiurus cinereus semotus*)

The Hawaiian Hoary Bat is endemic and listed as an endangered species. It is found sporadically along the Kona Coast (Tomich 1969). The bats are most conspicuous from August to December. They are usually seen in the early evening, in sometimes larger aggregations than at other times or seasons, and often over coastal waters (Kepler and Scott 1990). Kjargaard (1986) mentions talking to fishermen and the caretaker at Makalawena who reported seeing bats regularly over Awake'e Bay. Bruner (1986) saw two bats flying over Kapoikai Pond on August 20, 1986.

House Mouse (*Mus musculus*)

The House mouse is the third rodent species reported in the area of Mahaiula Bay (Sunera pers. comm.). It was present in the open kiawe forest at Awake'e (Kjargaard 1986), Kukio 2 and Manini'owali (Bruner 1990).

Small Indian Mongoose (*Herpestes auropunctatus*)

Mongoose are diurnal species with an opportunistic and omnivorous diet. State Parks Division employees reported that at least three mongoose reside within the area of Mahaiula Bay (Oshiro pers. comm.). They were abundant in Awake'e, particularly in the strand vegetation and at Awake'e Bay and Kahoiawa Bay (Kjargaard 1986). Bruner (1990) reported seeing mongoose in Awake'e, Kukio 2 and Manini'owali. They were very abundant around Kapoikai Pond in Makalawena (Bruner 1986).

Hawaiian Monk Seal (*Monachus schauinslandi*)

Char (pers. comm) reported three monk seals at Mahaiula Bay on January 27, 1995. Two seals were photographed (Photo 7) on the beach just 100-150 ft. south of the life guard stand at Mahaiula Beach Park. The third seal was a larger solitary individual on the north end of Mahaiula Beach, past the Magoon beach house and near the coconut grove and the small anchialine ponds. The seals were first noticed at 9:00 am and were still on the beach at 1:00 pm when the survey party apparently left the area. According to Thea Johanos Kam (pers. comm., 1/7/97) of the National Marine Fisheries Service, there have been no other reports of Hawaiian monk seals from Mahaiula Bay.

Expected but Not Recorded in Recent Surveys

Feral Donkey (*Equus asinus*)

Feral Donkeys are descended from the herds kept by different families living in the area. The Kaelemakule family of Mahaiula was associated with raising donkeys. Donkeys were used to cross the barren lava fields to the coastline from mauka ranchlands. (Springer, 1986). According to State Parks employees, there were no donkeys in

Mahaiula. Kjargaard (1986) reported only skeletal remains and scats near Pu'u Kuili. Bruner (1986, 1990) makes no mention of seeing donkeys during his surveys of Awake'e, Kukio 2, Manini'owali or Makalawena. He mentions that there were donkeys in Kaupulehu to the north. According to a recent article in West Hawaii Today (Command 1995), Kaupulehu has a herd of 35 animals, and is one of the last remaining feral donkey herds along the North Kona coastline, that once ranged as far south as Honokohau. A second herd is at Huehue below Mamalahoa Highway. Dozens have been killed in automobile accidents since the Queen Kaahumanu Highway was built in 1975.

Norway Rat (*Rattus norvegicus*)

No trapping operations were conducted for small mammals, but a State Parks Division employee who regularly trapped rats for the Vector Control Branch of the State Department of Health indicated that the Norway Rat was present in the area of Mahaiula Bay (Sunera pers. comm.). Norway rats are generally regarded as being closely associated with humans. The old Magoon beach house, other structures and stone walls of the area, provide suitable habitat for the Norway rat.

Black Rat (*Rattus rattus*)

Black rats were also observed in the area of Mahaiula Bay by State Parks Division employees (Sunera pers. comm.). Black rats which are also called roof rats are associated with humans, but can also be found in the field apart from human activity. Black rats have an arboreal habit. They nest in trees and may inhabit the same area as the Norway rat or the Polynesian rat (*Rattus exulans*), but remain separated by their arboreal existence (Tobin pers. comm.). The rat guards on the coconut trees in the grove attested to the presence of the black rat.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Recreational Site

Development of the recreational site to accommodate an increase in human use will result in a commensurate increase in wildlife that are closely associated with humans. Rats, mice, feral cats, mongoose, common myna, yellow-billed cardinals, zebra doves can all be expected to increase if refugia such as stonewalls and strand vegetation are left intact. House sparrows (*Passer domesticus*) may become established. Any irrigation to enhance ground cover or support other than xeric landscaping will also be beneficial to most of these species.

Anchialine Pond Complex Protection and Management

The system of anchialine pools and ponds along the coastline of west Hawai'i are considered a valuable scientific resource because of their unique biota. The ponds also support a small population of federally listed endangered waterbirds, and provide important wintering habitat for migratory ducks and shorebirds. The damselfly (*Megalagrion xanthmelas*), a Category 1 endangered species candidate is known from

Opae'ula and nearby seeps. Seven shrimp species are considered Category 2 endangered species candidates (U.S. Fish and Wildlife Service 1994b). Every effort should be made to protect the anchialine pools and ponds from human use and disturbance. The largest ponds within Kona Coast State Park are the ponds at Awake'e and Manini'owali. The ponds in Kona Coast State Park, and Kapoikai Pond should be managed as a wetland ecosystem. Scientific studies should be encouraged and these ponds should be used as an interpretive resource.

Management of Strand Community

The species diversity and structure of the strand community should be maintained. The majority of wildlife occur in the strand community and any increase in human use will affect the populations of the mostly introduced species. Some areas should remain in a wild state if species like the gray francolin are to survive the increase in human activity.

Endangered and Native Species

The specific requirements of the Hawaiian Hoary Bat are not well known. They have been found to be in association with introduced vegetation in 64 percent of the recorded observations (Kepler and Scott 1990). Much of the vegetation in the strand community is introduced. It is not possible to actually manage for bats except perhaps to maintain the strand vegetation and the vegetation surrounding the anchialine ponds. The habitat is present.

Neither owl has been reported from the area. As rodent populations cycle, as they will do in dry grasslands, the area will become more attractive to owls. Owls will nest in areas having good foraging opportunities. Increasing rodent populations to attract owls is not recommended. Most cycles are naturally occurring, and dependent on a variety of environmental conditions as well as the inherent physiological condition of the rodents.

The Hawaiian monk seal must be strictly protected from human disturbance. People should be kept about 30 to 40 m away from monk seals. Any sighting is worth reporting to the National Marine Fisheries Service.

Management of feral goats and other game species

Unless there are rare plants in the area that cannot be protected, feral goats and donkeys could be maintained as a cultural resource. The herds, however, must be well managed and maintained. Archery hunting away from sites could be allowed during week days to cull the goat herds. The controversial culling of feral donkeys at Kapulehu, indicate an interest by the public in maintaining a donkey population in west Hawai'i. Bishop Estate is currently culling goats at Makalawena (Casey pers. comm). An agreement should be made to manage these wildlife resources cooperatively.

Table 1. Direct counts of birds on December 7 and 8, 1994, Mahaiula Bay, Mahaiula, North Kona, Island of Hawaii.

Mahaiula Bay, North Kona Bird Species	1994	1994	Average	High Count
	Evening 12/7	Morning 12/8		
Yellow-billed Cardinal	22	9	15.5	22
Japanese White-eye	2	27	14.5	27
Gray Francolin	17	12	14.5	17
House Finch	12	16	14	16
Nutmeg Mannikin	0	11	5.5	11
Northern Cardinal	6	8	7	8
Common Myna	7	4	5.5	7
Zebra Dove	5	0	2.5	5
Pacific Golden Plover	1	3	2	3
Spotted Dove	0	2	1	2
Wandering Tattler	0	1	0.5	1

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RECEIVED AS FOLLOWS

Photo 1. Rocky and sandy shoreline habitat type.



RECEIVED AS FOLLOWS

Photo 2. Anchialine pond habitat type.



RECEIVED AS FOLLOWS

Photo 3. Beach strand community habitat type.



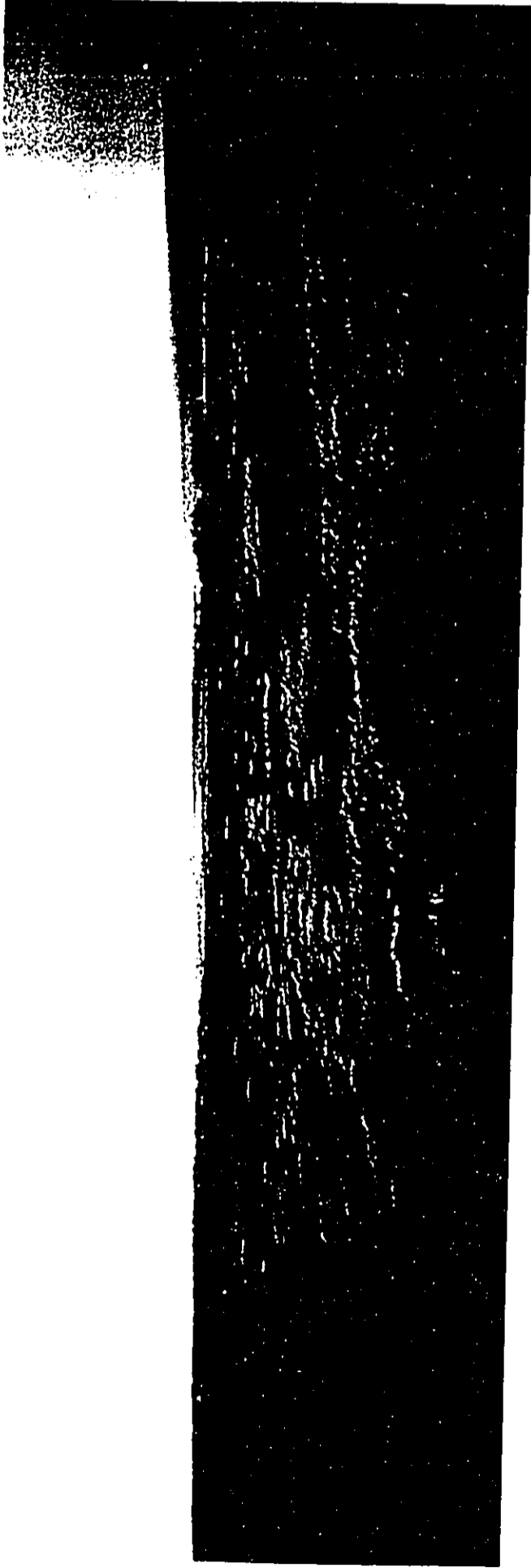
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Photo 4. Coastal closed kiawe forest habitat type.



RECEIVED AS FOLLOWS

Photo 5. Open kiawe forest habitat type, aa lava.



RECEIVED AS FOLLOWS

Photo 6. Grassland on pahoehoe lava.



RECEIVED AS FOLLOWS

Photo 7. Two monk seals, Mahaiula Bay, January 27, 1995 (Courtesy of W. Char)



Appendix E
Botanical Study

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BOTANICAL (FLORA) STUDIES
KONA COAST STATE PARK
NORTH KONA, ISLAND OF HAWAII

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June 1995

BOTANICAL (FLORA) STUDIES
KONA COAST STATE PARK
NORTH KONA, ISLAND OF HAWAII

INTRODUCTION

The proposed ±2,000-acre Kona Coast State Park begins just north of Keahole Airport on the lands of Kaulana ahupua'a and stretches along 5.3 miles of coastline up to Kikaua Point. Scattered along the coastline are a few sandy beaches which usually support shady stands of kiawe and ironwood trees. Several anchialine ponds of varying sizes occur in the coastal area and these also usually support denser vegetation. However, the majority of the shoreline is rocky or, in a few places, there are waterworn coral and basalt cobble beaches with sparse vegetation. Inland of the coast, a grassland composed of fountain grass with scattered kiawe trees and shrubs is found on the more weathered pahoehoe and 'a'a flows as well as two cinder cones. Where a thin layer of soil has developed over the lava flows, such as on the Awake'e parcel, kiawe trees form a closed to open canopied forest 18 to 25 ft. tall. Large portions of the proposed park are covered by geologically recent lava flows, primarily 'a'a, which are nearly devoid of vegetation.

The State of Hawaii is currently preparing a long term plan for the park. The plan will identify significant natural and cultural features and major recreation values. The Mahai'ula area will be the first phase developed. The Mahai'ula development plan will include park features, environmental concerns, interpretive values, and park facilities.

Botanical studies to assess the plant resources found on the proposed Kona Coast State Park were begun by Char & Associates

in January 1995. The Makalawena, Awake'e, Manini'owali, and Kuki'o parcels had been extensively surveyed by the principal investigator in earlier studies. For this project, the field studies concentrated on the Kaulana and Mahai'ula parcels which had not been previously surveyed. A reconnaissance-level survey was made for the inland portions of these two parcels to ground check vegetation types tentatively identified on the recent colored aerial photographs. A more intensive survey was made for the coastline as this area would be the most heavily impacted by the proposed park use.

Field work was conducted on 27 and 28 January 1995; a total of four botanists, working in teams of two each, was used. The primary objectives of the field studies were to: 1) provide a general description of the vegetation types; 2) inventory the flora; 3) search for threatened and endangered species; and 4) identify areas of potential environmental problems or concerns and propose appropriate mitigation measures.

SURVEY METHODS

Previous botanical studies prepared by the principal investigator for the Makalawena (Char 1986a), Awake'e (Char 1986b), Manini'owali (Char 1989, 1990, 1991), and Kuki'o (Char 1984) parcels as well as the original field notes from these studies were reviewed.

An walk-through survey was conducted for the Kaulana and Mahai'ula parcels which had not been previously surveyed by the principal investigator. The field studies focused primarily along the coastal areas, particularly Mahai'ula Bay, since improvements are planned for this area first. In addition, updated field studies were made for the coastal section from Kua Bay to Kuki'o Bay.

Notes were made on plant associations and distribution, substrate types, topography, exposure, drainage, etc. Plant identifications were made in the field. Plants which could not be positively

identified were collected for later determination in the herbarium, and for comparison with the most recent taxonomic literature.

The species recorded are indicative of the season ("rainy" vs. "dry") and the environmental conditions at the time of the survey. A survey taken at a different time of the year and under varying environmental conditions would no doubt yield slight variations in the species list, especially of the weedy, annual plants.

RESULTS

VEGETATION TYPES

Six vegetation types are recognized on the proposed Kona Coast State Park and are discussed in more detail below. The descriptions of the vegetation types are drawn largely from the earlier botanical studies. A list of all the plant species recorded from the 2,000-acre project site is presented in the checklist at the end of the report.

Coastal Vegetation: The coastal vegetation occurs as a narrow band along the shoreline except on the sandy beach areas where it is somewhat wider. Much of the coastline is rocky with wave-swept boulder beaches and rocky headlands. Vegetation is sparse along the rocky shoreline with only a few scattered clumps of plants such as fountain grass (Pennisetum setaceum), threadstem carpetweed (Molluga cerviana), nettle-leaved goosefoot (Chenopodium murale), pa'u o Hi'iaka (Jacquemontia ovalifolia ssp. sandwicensis), and low, windswept kiawe trees (Prosopis pallida) and pluchea shrubs (Pluchea symphytifolia).

Along exposed points of the coastline where the 'a' lava flows meet the sea, high storm-waves have thrown up coral rubble. These rounded to irregularly shaped pieces of coral and rounded, water-

worn basalt rocks, 8 to 10 inches in diameter, form a sharply contrasting black and white-colored cobble beach. Vegetation is sparse although one may find a few small patches of the silver-leaved hinahina (Heliotropium anomalum var. argenteum), nauapaka shrubs (Scaevola sericea), tree heliotrope (Tournefortia argentea), and mats of pohuehue or beach morning-glory (Ipomoea pes-caprae) fronting the cobble beaches.

Several sandy beaches are found in sheltered areas along the coastline such as at Mahai'ula Bay, Makalawena, Kua Bay, and Kikaua Point-Kuki'o Bay. Native species found associated with these sandy substrates include 'aki'aki (Sporobolus virginicus), pohuehue, nauapaka, pa'u o Hi'iaka, kauna'oa (Cuscuta sandwichiiana), and alena (Boerhavia repens). A few scattered trees of the introduced kiawe and tree heliotrope also occur here. On some beaches, there are large groves of trees and other ornamental species which have been planted there by the former residents. These include groves of ironwood (Casuarina equisetifolia), the largest of which is found at Makalawena, and smaller stands of milo (Thespesia populnea), coconut (Cocos nucifera), kamani (Calophyllum inophyllum), and kou (Cordia subcordata). Except for the Kua Bay beach, all of the other beaches have a somewhat dense band of kiawe trees in the area where the sandy beaches interface the inland rocky substrates.

Pond Vegetation: Several anchialine pond complexes and wetlands dot the coastline. Kapoikai Pond, the largest pond on the project site, is very well vegetated and has a layer of marsh soil composed of a brownish-beige mixture of sand, silt, organic matter, and water (Elliot and Hall 1977). A dense cover of emergent sedge species which include kaluha (Bolboschoenus maritimus ssp. paludosa), bulrush (Schoenoplectus californicus), and makaloa (Cyperus laevigatus) as well as low mats of water hyssop (Bacopa monniera) is found along the perimeter of the

pond. Bruner (1986) observed three endangered species of Hawaiian waterbirds on this pond; these were the Koloa or Hawaiian Duck (*Anas wyvilliana*), the Ae'o or Black-necked Stilt (*Himantopus mexicanus knudseni*), and the 'Alae Ke'oke'o (*Fulica americana alai*). Smaller ponds with emergent vegetation and sediment-laden bottoms are found at Mahai'ula Bay, Awake'e, and Kua Bay. There is also a pond complex behind Kuki'o Bay, but this is outside of the project site. Some of the ponds support orange-colored algae crusts (*Schizothrix* sp.) and floating mats of filamentous green and blue-green algae. Widgeon grass (*Ruppia maritima*), an aquatic flowering plant, is found in some ponds.

A number of smaller anchialine ponds are found on the 'a'a lava flows along the coastline. These ponds usually do not have sediment-laden bottoms and the vegetation around the ponds may be lacking or sparse. If present, the vegetation usually consists of low growing, mat forming species such as pohuehue and 'akulikuli (*Sesuvium portulacastrum*). Some of these smaller ponds which lack predatory fish species support opae'ula shrimp (*Halocaridina rubra*).

Fountain Grass Grassland: This vegetation type and the sparsely vegetated lava flows cover the most area on the project site. This grassland occurs primarily on the weathered, oxidized pahoehoe lava flows. Fountain grass (*Pennisetum setaceum*) is the most abundant of the grasses, although Natal redtop (*Rhynchelytrum repens*) may be locally common in swale areas with shallow, stony soils and pili grass (*Heteropogon contortus*) may be locally common on hummocks and knolls on the mauka portions of the project site, closer to the Queen Ka'ahumanu Highway. Scattered among the bunches of fountain grass are small shrubs of 'uhaloa (*Waltheria americana*), 'ilima (*Sida fallax*), indigo (*Indigofera suffruticosa*), and nehe (*Lipochaeta lavarum*), and larger shrubs of pluchea (*Pluchea symphytifolia*), noni (*Morinda citrifolia*), and a 'ali'i

(*Dodonaea viscosa*). Kiawe trees (*Prosopis pallida*) occur as widely scattered individuals or small clumps of trees, 6 to 12 ft. tall. Smaller herbaceous, mostly annual, species include hairy spurge (*Chamaesyce hirta*), lovegrass (*Eragrostis tenella*), coatbuttons (*Tridax procumbens*), and 'ihi (*Portulaca pilosa*).

Plant cover is variable, tending to be sparser on the less weathered flows. The grasslands found on the Mahai'ula and Makalawena parcels vary from 40 to 50% cover, while the grassland on the much more older and weathered Manini'owali flows are generally denser, varying from 70 to 90% cover.

This vegetation type is also found on the two cinder cones within the #2,000-acre park. Fountain grass forms 90 to 95% cover in most places on Pu'u Kuli. Near the top of the cone, the loose, reddish-brown colored, bedded cinder-ash-pumice material is replaced by surface rock and cinder. In this area, 'ihi, 'uhaloa, and pa'u o Hi'iaka are abundant. Around the base of the cinder cones, the kiawe trees form a rather dense ring of trees, 15 to 18 ft. tall. Threadstem carpetweed, 'aheahea (*Chenopodium murale*), puakala (*Argemone glauca*), and kakonakona (*Panicum torridum*) can be found under the kiawe trees.

Kiawe Forest: Kiawe forest is found on very weathered pahoehoe and 'a'a lavas on much of the Awake'e parcel and around Kapoikai Pond on the Makalawena parcel. In some places, the pahoehoe bedrock is covered by a thin layer of reddish-brown soil, 6 to 8 inches deep. In these places, the kiawe trees, 18 to 25 ft. tall, tend to form a closed canopy forest with the crowns of the trees interlocking. Understory vegetation is sparse because of the shade from the trees above and includes small patches of false mallow (*Malvastrum coromandelianum*), fountain grass, keeled goosefoot (*Chenopodium carinatum*), lantana (*Lantana camara*), and hairy abutilon.

Where there is very little soil, the kiawe forest is open with canopy cover 30 to 50%. Ground cover is dense and is dominated by the introduced fountain grass. Most of the shrub and herb species associated with the fountain grass grassland can also be found in these open canopied forests.

The kiawe forests, especially the one found on the Makalawena parcel, provides cover for a small herd of feral goats. Goat droppings and signs of browsing can also be found in the Grasslands and coastal vegetation of both parcels.

Sparse Vegetation on 'A'a: Vegetation cover is sparse (3 to 5%) to almost nonexistent on the 'a'a lava flows which cross the ±2,000-acre park site. The jumbled, clinkery heaps of black 'a'a are harsh and the few plants found here occur in widely scattered patches usually associated with depressions or small pahoehoe kipukas or outcrops on the 'a'a' flows. The few plants found here include pluchea, fountain grass, 'uhaloa, kiawe, and maipilo (Capparis sandwichiensis).

Where the 'a'a flows interface the more densely vegetated, older weathered flows, the numbers of plants increase. In these areas, Natal redtop grass, coatbuttons, puakala, nehe, and an occasional hairy swordfern (Nephrolepis multiflora) may be encountered.

Roadside Vegetation: This vegetation type only occupies a small portion of the project site and is found alongside the Queen Ka'ahumanu Highway and unpaved roads which cross the property. While the roadside vegetation contains some common components of the fountain grass grassland, there are some species which are confined to the vicinity of the roadside or are more abundant there. Most components of this plant community are annual species and their numbers and composition fluctuate with the season ("rainy" vs. "dry"). Many of the plants are well adapted to

living under disturbed conditions with vehicular and pedestrian traffic and occasional herbicide treatment (along the highway). Besides the ubiquitous fountain grass, other plants found along the roadside include Florida beggarweed (Desmodium tortuosum), spiny amaranth (Amaranthus spinosus), Bermuda grass or manienie (Cynodon dactylon), red-flowered boerhavia (Boerhavia coccinea), Spermacoce mauritiana, Spanish needle (Bidens pilosa), kaliko (Euphorbia heterophylla), Cuba jute (Sida rhombifolia), and Richardia brasiliensis.

VEGETATION ON MAHA'I'ULA PORTION

The Maha'i'ula Bay area will be the first portion developed for the Kona Coast State Park, and an Environmental Impact Statement (EIS) will be prepared in conjunction with the phase I project development plans. A more detailed description of the makai portions of the Kaulana and Maha'i'ula area is therefore presented below. The sandy beach fronting this area is currently a day use area. A former wooden 2-story residence with landscape plantings is found on the northern portion of the beach.

The partially paved, narrow road which begins off of the Queen Ka'ahumanu Highway winds its way over a sparsely vegetated 'a'a lava flow and a few smaller sections of weathered, reddish-brown colored pahoehoe flows with fountain grass grassland. The road terminates in a small parking lot on the 'a'a flow just behind the beach.

The smaller sandy stretch of beach on the southern end has a few recent plantings of ixora (Ixora hybrids), globe amaranth or bozu (Gomphrena globosa), ti leaf (Cordyline fruticosa), etc., near a concrete wall. On the sandy beach there are small trees of ironwood, tree heliotrope, milo, and coconut. A sandy bottomed pond

with widgeon grass and filamentous green and blue-green algae is also found here. Makaloa, 'akulikuli, kaluha, and kipukai or nena (*Heliotropium curassavicum*) are common to abundant around the edges of the pond. A small clump of milo and coconut trees line one side of the pond.

A small finger of lava separates the smaller southern beach from the larger crescent-shaped beach along Mahai'ula Bay. On the inland side of this beach is a dense grove of large, old trees many of them with trunks 2 to 3 ft. in diameter (dbh). Besides kiawe, the trees include milo, kou, and tree heliotrope. This grove of trees provides a shady and cool place to rest from the hot Kona sun. Around the former 2-story residence/beach house, there are several landscape plantings; these include Indian rubber plant (*Cryptostegia grandiflora*), crown flower (*Calotropis gigantea*), spider lily (*Crinum asiaticum*), be-still-tree (*Casabela thevetia*), slipper flower (*Pedilanthus* sp.), oleander (*Nerium oleander*), ti, and aloe (*Aloe vera*). There are small stands of trees which include kou, coconut, octopus tree (*Schefflera actinophylla*), tree heliotrope, and sea grape (*Conocoloba uvifera*). A garden with kalamungai (*Moringa oleifera*), papaya (*Carica papaya*), and yard-long bean (*Vigna unguiculata* ssp. *sequipedalis*) can be found tucked behind a smaller building. One tree of the endemic loulou palm (*Pritchardia affinis*) is planted on the seaward side of the residence in an enclosed yard area. The loulou is discussed in more detail in the "Threatened and Endangered Species" section of this report.

On the northern edge of the beach is an old grove of coconut trees with a few patches of St. Augustine grass (*Stenotaphrum secundatum*). A few anchialine ponds are found in the area where the sandy beach meets an 'a'a flow and also on the 'a'a flow itself. Some of the ponds are overgrown with pluchea along the edges.

THREATENED AND ENDANGERED SPECIES

One listed endangered species, the loulou palm (*Pritchardia affinis*), and two category 2 candidate endangered species, the maiapilo or native caper (*Capparis sandwichiana*) and *Fimbristylis hawaiiensis*, a small sedge, are present on the project site (U.S. Fish and Wildlife Service 1994b).

The loulou, a palm 10 to 25 ft. tall, has large fan-shaped leaves which are green and smooth on the upper surface and pale green with scattered yellowish scales on the lower surface. Long, tangled, woolly hairs are found on the undersides of the leaf stalk and at the base of the leaf blade. The stout, branched, hairless flower clusters are located among the leaves. Fruits are spherical about 0.9 inches in diameter and turn black when mature. Historically, loulou were found only on the island of Hawai'i in the Kohala Mountains and along the western and southwestern coasts. Today, scattered individuals or small stands of trees can be found throughout much of the historically known coastal range from Kiholo southward to Punalu'u. Most plants grow within areas of human habitation or development, and the trees may have been cultivated by the Hawaiians or by others rather than having occurred naturally (Hodel 1980; Wagner et al. 1990; U.S. Fish and Wildlife Service 1994a). On the project site, one loulou about 10 ft. tall is found on the makai (seaward) side of the former 2-story residence. It appeared healthy and had both immature and ripe fruits at the time of our field studies.

Two category 2 (C2) candidate endangered species are found on the project site. A category 2 plant is a species for which there is some evidence of vulnerability, but for which there is presently not enough data to support a listing proposal (U.S. Fish and Wildlife Service 1990). The maiapilo or native caper is related to the caper of commercial trade, *Capparis spinosa*, whose flower

buds are pickled and eaten. The maipilo is a sprawling, woody shrub with bluish-green, rounded leaves. The pleasantly fragrant, showy, white flowers with many stamens open after sunset and wither by midday. On the project site, maipilo is found in small numbers scattered along the rocky coastline, in the fountain grass grassland, and sometimes on the sparsely vegetated younger 'a'a flows.

Fimbristylis sandwicensis, a member of the sedge family (Cyperaceae), forms diminutive, slender, wiry tufts 3 to 6 inches tall. The inflorescence consists of small pale brown spikes of flowers which are wind pollinated. The plants are usually found associated with the more weathered and oxidized pahoehoe flows where there is some accumulation of small pockets of soil.

At one time, the pololei fern, formerly known as *Ophioglossum concinnum*, was thought to be native only to the Hawaiian Islands and was proposed for listing as endangered by the U.S. Fish and Wildlife Service. It is found on the Manini'owali parcel. Recent scientific studies, however, indicate that this species is no longer an endemic Hawaiian species, but part of the more widely distributed and common *Ophioglossum polyphyllum*. The Service has since removed the fern from any listing proposals (R.P. Smith letter, USFWS, 01 October 1993). The pololei fern, a member of the adler's tongue fern family (Ophioglossaceae), is well adapted to hot, dry environments. It is a small, perennial fern with paddle-shaped fronds, 3 to 5 inches long. Yellow, dust-like spores are borne in a simple spiked structure on the fertile fronds. The plants appear after the first heavy downpour of the rainy season, quickly produce vegetative and fertile fronds, and then with the onset of the drier months the fronds die back. Only the tuberous underground rhizomes survive until the next rainy season.

DISCUSSION AND RECOMMENDATIONS

The proposed ±2,000-acre Kona Coast State Park, from Mahai'ula to Kuki'o, contains several beautiful sandy beaches, rare gems along the mostly rocky West Hawai'i coastline. The beaches tend to be associated with sheltered embayments and include the day use beach at Mahai'ula; the long, sandy stretch bordering Pu'u Ali'i Bay at Makalawena; the smaller, more exposed beach at Kua Bay; and the Kikaua Point beach at Kuki'o. All the beaches except the Kua Bay beach have shady groves of large trees and somewhat dense vegetation. One listed endangered species, the loulou palm (*Pritchardia affinis*), is found at Mahai'ula. Storm-tossed, white coralline chunks and waterworn, rounded black basalt form cobble beaches where many of the 'a'a flows meet the sea. These cobble beaches support sparse vegetation. Anchialine ponds and wetlands dot the coastline. The largest pond at Makalawena, Kapoikai Pond, and the nearby Awake'e pond complex provide habitat for three endangered Hawaiian waterbirds.

Inland, much of the park is covered by stark, black 'a'a lava flows which support only a few scattered patches of plants. On the geologically older, more weathered lava flows which have been oxidized into various various shades of reddish-brown, tussocks of fountain grass, scattered shrubs, and kiawe trees form a low, open cover. Pu'u Kuli cinder cone is also covered by this grass-scrub association. In the back of Kapoikai Pond and parts of the Awake'e parcel, there is some shallow soil and these areas support open to closed canopied kiawe forest.

The inland portions of the project site do not support any sensitive native plant communities or listed threatened and endangered species. Removal of the existing vegetation and use of these areas for such things as roadways, camp sites, parking lots,

etc., should not have a significant negative impact on the botanical resources.

The coastal area, however, is of concern. Anchialine ponds and wetlands as well as one endangered species occur here. At present the sandy beaches at Kua Bay and Mahai'ula are heavily used by people for recreation activities, especially on weekends and holidays. Once access to the private beaches at Kuki'o and Makalawena is obtained and improvements made at all the beaches, there will be greater human impact on these limited coastal resources.

The Mahai'ula site and the Kua Bay site provide an interesting contrast in resource management. At the Mahai'ula site, vehicular access and pedestrian traffic is controlled. A parking lot is located on a largely barren lava flow and, in most places, pedestrian traffic is directed over designated footpaths. There is a life guard stand along the beach. In contrast, at the Kua Bay site there is no parking lot so vehicles park all over the place, disturbing archaeological sites and smashing naupaka shrubs along the sandy beach. There is no one overseeing this beach and there is litter and the vegetation is damaged. The small pond to the north of the beach is rapidly being filled in by wind-blown sand due to the loss of coastal vegetation.

Recommendations

The concept of a wilderness park showcasing its natural and cultural features as well as providing public uses is an admirable goal, but in some sensitive coastal areas public use needs to be guided and, sometimes, limited.

The Mahai'ula beach area is managed fairly well and the same

management ideas can be applied to the other beach areas as they are developed. Vehicular and pedestrian traffic are guided and directed over less sensitive areas. We like the day use only idea and that the park is closed one day of the week and on the other days open only after 9:00 a.m. This allows nonhuman users of the coastal areas, such as the endangered Hawaiian waterbirds, sea turtles, and Monk seals, some time without human disturbance. The coastal areas were used by these species long before the arrival of humans. The concept of 'aina is that we respect and share the land (with humans and other species), not trash it or use it only for ourselves. The public should be made aware of why certain rules are necessary to protect these resources. In other words, some public education will be needed. Perhaps when the park is fully developed, beach use can be rotated so that one beach area is allowed to "rest" for a month or two.

The following recommendations regarding the botanical resources are proposed:

- The endangered loulu palm found on the Mahai'ula parcel should be preserved. The U.S. Fish and Wildlife Service (USFWS) and the State's Division of Forestry and Wildlife (DOFAW) are the agencies charged with enforcing the endangered species laws. They should be contacted prior to any development in the area.

- Wherever possible native and Polynesian introduced plants are recommended for landscaping. In 1991, the Hawai'i legislature passed "Act 73". This law mandates that any new or renovated landscapes for any facilities developed with state funds incorporate native Hawaiian plants wherever and whenever possible. Some native species already found on the site such as 'illima, pa'u Hi'iaka, nehe (*Lipochaeta lavatum*), a'ali'i, maiapilo, and naupaka as well as other lowland dry species can be used. These plants are already adapted to the local environmental conditions and would require less water and soil. Polynesian introduced

plants such as kou, kamani, noni, and milo which occur at some beach sites can be propagated and used in the landscaping.

- Some anchialine pond and wetland areas, especially those used by the endangered Hawaiian waterbirds, will need to be fenced and managed. Native wetland plants provide food and nesting material for these birds. In some places the ponds may have to be deepened and the sand removed. The USFWS should be contacted prior to any management or development plans around these areas.

PLANT SPECIES LIST -- Kona Coast State Park

A checklist of all those vascular plant species inventoried on the project site during the field studies and from the previous surveys by Char (1984, 1986a, 1986b, 1990, 1991) are presented below. The species are arranged alphabetically by families within each of three groups: Ferns and Fern Allies, Monocots, and Dicots. The taxonomy and nomenclature of the Ferns and Fern Allies follow the treatment by Lamoureux (1988), while the flowering plants, Monocots and Dicots, are in accordance with Wagner *et al.* (1990).

For each species, the following information is provided:

1. Scientific name with author citation.
2. Common English and/or Hawaiian name(s), when known.
3. Biogeographic status. The following symbols are used:
E = endemic = native only to the Hawaiian Islands.
I = indigenous = native to the Hawaiian Islands and also elsewhere.
P = Polynesian = plants originally of Polynesian introduction prior to Western contact (Cook's discovery of the islands in 1778); not native.
X = introduced or alien = all those plants brought to the islands by humans, intentionally or accidentally, after Western contact; not native.
4. Presence (+) or absence (-) of a particular species within each of six vegetation types recognized on the project site (see text for description). An asterisk (*) in the coastal vegetation column indicates that the plant occurs only in the landscaped area and house site along Mahai'ula Bay. A "+/*" sign in this column means that the species is established naturally along the coast, but is also planted in the landscaped area and house site.

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
FERNS & FERN ALLIES								
NEPHROLEPIDACEAE (Sword Fern Family)								
<i>Nephrolepis multiflora</i> (Roxb.) Jarrett ex Morton	hairy sword fern	X	-	-	+	-	+ -	
OPHIOGLOSSACEAE (Adder's Tongue Family)								
<i>Ophioglossum polyphyllum</i> A. Braun	pololei	I	-	-	+	-	- -	
PSILOTAECIAE (Whisk Fern Family)								
<i>Psilotum nudum</i> (L.) Beauv.	moa, pipi	I	-	-	+	-	- -	
SINOPTERIDACEAE (Cliffbrake Family)								
<i>Doryopteris decipiens</i> (Hook.) J. Sm.	kumu-niu, manawahua, 'iwa'iwa	E	-	-	-	-	+ -	
FLOWERING PLANTS								
MONOCOTS								
AGAVACEAE (Sisal Family)								
<i>Cordyline fruticosa</i> (L.) A. Chev.	ti, ki	P	*	-	-	-	- -	
<i>Furcraea foetida</i> (L.) Haw.	Mauritius hemp	X	-	-	+	-	- -	
ARECACEAE (Palm Family)								
<i>Cocos nucifera</i> L.	coconut, niu	P	+/*	+	-	-	- -	
<i>Pritchardia affinis</i> Becc.	loulu	E	*	-	-	-	- -	
CYPERACEAE (Sedge Family)								
<i>Bolboschoenus maritimus</i> ssp. paludosus (A. Nels.) T. Koyama	kaluha	I	-	+	-	-	- -	
<i>Cladium jamaicense</i> Crantz	saw grass, 'uki	I	-	+	-	-	- -	

c = Coastal Vegetation
p = Pond Vegetation
f = Fountain Grass Grassland
k = Kiawe Forest
s = Sparse Vegetation on 'A'a
r = Roadside Vegetation

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
DICOTS								
AIZOACEAE (Ficoid Family) Sesuvium portulacastrum (L.) L.	'akulikuli	I	+	+	-	-	-	-
AMARANTHACEAE (Amaranth Family) Amaranthus spinosus L.	spiny amaranth, pakai							
Amaranthus viridus L.	kuku	X	-	-	-	-	-	+
Gomphrena globosa L.	slender amaranth, pakai	X	-	-	-	+	-	-
	globe amaranth, bozu,							
	lehua mau loa	X	*	-	-	-	-	-
ANACARDIACEAE (Mango Family) Schinus terebinthifolius Raddi	Christmas berry, wilelaiki	X	+	-	-	-	-	-
APIACEAE (Parsley Family) Centella asiatica (L.) Urb.	Asiatic pennywort, pohe kula	X	*	-	-	-	-	-
APOCYNACEAE (Periwinkle Family) Cascabela thevetia (L.) Lippold	be-still-tree	X	*	-	-	-	-	-
Nerium oleander L.	oleander, 'oleana	X	*	-	-	-	-	-
ARALIACEAE (Ginseng Family) Schefflera actinophylla (Endl.) Harms	octopus tree, umbrella tree	X	*	-	-	-	-	-
ASCLEPIADACEAE (Milkweed Family) Calotropis gigantea (L.) W.T. Aiton	crown flower, puaka- launu	X	*	-	-	-	-	-
Cryptostegia grandiflora (Roxb.) R. Br.	Indian rubber plant	X	*	-	-	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
Cyperus laevigatus L.	makaloa	I	-	+	-	-	-	-
Fimbristylis hawaiiensis Hillebr.	fimbristylis	E	-	-	+	-	-	-
Schoenoplectus californicus (C.A. Mey.) Palla	bulrush, kaluha	X?	-	+	-	-	-	-
Schoenoplectus lacustris (L.) Palla	great bulrush, 'aka'akai	I	-	+	-	-	-	-
LILIACEAE (Lily Family) Aloe vera L.	aloe	X	*	-	-	-	-	-
Crinum asiaticum L.	spider lily	X	*	-	-	-	-	-
PANDANACEAE (Hala Family) Pandanus tectorius S. Parkinson ex Z.	pandanus, hala	I	*	-	-	-	-	-
POACEAE (Grass Family) Aristida adscensionis L.	sixweeks threeawn	X	-	-	+	+	-	-
Cenchrus ciliaris L.	buffelgrass	X	+	-	+	-	-	+
Cynodon dactylon (L.) Pers.	Bermuda grass, manienie	X	+	-	-	-	-	+
Eragrostis tenella (L.) P. Beauv. ex Roem. & Schult.	lovegrass	X	-	-	+	+	-	-
Heteropogon contortus (L.) P. Beauv. ex Roem. & Schult.	pili, pili grass	I	-	-	+	-	-	-
Panicum fauriei Hitchc.	kakonakona	E	-	-	-	-	+	-
Panicum torridum Gaud.		E	-	-	-	+	-	-
Pennisetum setaceum (Forssk.) Chiov.	fountain grass	X	+	+	+	+	+	+
Rhynchelytrum repens (Willd.) Hubb.	Natal redtop grass	X	-	-	+	-	-	+
Sporobolus virginicus (L.) Kunth	beach dropseed, 'aki'aki	I	+	+	-	-	-	-
Stenotaphrum secundatum (Walter) Kuntze	St. Augustine grass, buffalo grass, 'aki'aki haole	X	*	+	-	-	-	-
RUPPIACEAE (Ditchgrass Family) Ruppia maritima L.	ditchgrass, widgeon grass	I	-	+	-	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
CARICACEAE (Papaya Family) Carica papaya L.	papaya, mikana	X	*	-	-	-	-	-
CASUARINACEAE (Ironwood Family) Casuarina equisetifolia L.	ironwood, paina	X	+/*	-	-	-	-	-
CHENOPODIACEAE (Goosefoot Family) Atriplex semibaccata R. Br. Chenopodium carinatum R. Br. Chenopodium murale L.	Australian salt bush	X	+	+	-	-	-	-
	keeled goosefoot	X	-	-	+	+	-	-
	'aheahea	X	+	-	+	+	-	-
CLUSIACEAE (Mangosteen Family) Calophyllum inophyllum L.	kamani, kamanu	P	*	-	-	-	-	-
CONVOLVULACEAE (Morning-glory Family) Ipomoea indica (J. Burm.) Merr. Ipomoea pes-caprae ssp. brasiliensis (L.) Ooststr.	koali 'awa	I	-	-	+	-	-	-
	beach morning-glory, pohuehue	I	+	+	-	-	-	-
Jacquemontia ovalifolia ssp. sandwicensis (A. Gray) Robertson	pa'u o Hi'i'aka	E	+	-	-	-	-	-
CRASSULACEAE (Orpine Family) Kalanchoe pinnata (Lam.) Pers.	air plant	X	*	-	-	-	-	-
CUCURBITACEAE (Squash Family) Cucumis dipsaceus Ehrenb. ex Spach	wild cucumber, spiny cucumber	X	+	-	+	+	-	-
CUSCUTACEAE (Dodder Family) Cuscuta sandwichiana Choisy	kauna'oa	E	+	-	-	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
ASTERACEAE (Daisy Family) Ageratum conyzoides L. Bidens pilosa L. Conyza bonariensis (L.) Cronq. Crassocephalum crepidioides (Benth.) S. Moore Gnaphalium purpureum L. Lipochaeta lavarum (Gaud.) DC. Pluchea symphytifolia (Mill.) Gillis Tridax procumbens L. Vernonia cinerea var. parviflora (Reinw.) DC. Xanthium strumarium var. canadense (Mill.) Torr. & A. Gray	maile hohono	X	-	-	+	-	-	-
	Spanish needle, beggar's tick, ki	X	-	-	+	-	-	+
	hairy horseweed, 'ilioha	X	-	-	+	-	-	-
	crassocephalum	X	-	-	+	-	-	+
	purple cudweed	X	+	-	+	-	-	-
	nehe	E	-	-	+	-	-	-
	pluchea, sourbush	X	+	+	+	-	+	-
	coatbuttons	X	-	-	+	-	-	+
	little ironweed	X	-	-	+	+	-	-
	cocklebur, kikania	X	+	-	-	-	-	-
BORAGINACEAE (Heliotrope Family) Cordia subcordata Lam. Heliotropium anomalum var. argenteum A. Gray Heliotropium curassavicum L. Tournefortia argentea L.f.	kou	P	+/*	+	-	-	-	-
	hinahina, hinahina ku kahakai	E	+	-	-	-	-	-
	kipukai, nena	I	-	+	-	-	-	-
	tree heliotrope	X	+/*	+	-	-	-	-
BUDDLEIACEAE (Butterfly Bush Family) Buddleia asiatica Lour.	dog tail, huelo 'ilio	X	-	-	-	-	+	
CACTACEAE (Cactus Family) Opuntia cochenillifera (L.) Mill. Opuntia ficus-indica (L.) Mill.	cochineal cactus	X	*	-	-	-	-	
	prickly pear, panini	X	-	-	+	+	-	
CAPPARACEAE (Caper Family) Capparis sandwichiana DC. Cleome gynandra L.	maia pilo, pua pilo	E	+	-	+	-	+	
	wild spider flower, hohohina	X	+	-	+	-	-	

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
Hibiscus rosa-sinensis L.	red hibiscus	X	*	-	-	-	-	-
Malvastrum coromandelianum (L.) Garcke	false mallow, hauuoi	X	-	-	+	+	-	-
Sida fallax Walp.	'ilima	I	-	-	+	+	+	+
Sida rhombifolia L.	Cuba jute	X	-	-	-	-	-	+
Thespesia populnea (L.) Sol. ex Correa	milo	I?	+/*	+	-	-	-	-
MOLLUGINACEAE (Carpetweed Family) Mollugo cerviana (L.) Ser.	threadstem carpetweed	X	+	-	+	-	-	+
MORINGACEAE (Moringa Family) Moringa oleifera Lam.	horseradish tree, kalamungai	X	*	-	-	-	-	-
NYCTAGINACEAE (Four-o'clock Family)								
Boerhavia coccinea Mill.	red-flowered boerhavia	X	+	-	-	-	-	+
Boerhavia repens L.	alena	I	+	-	-	-	-	-
Bougainvillea hybrids	bougainvillea	X	*	-	-	-	-	-
PAPAVERACEAE (Poppy Family) Argemone glauca (Nutt. ex Prain) Pope	native poppy, puakala	E	+	-	+	-	+	-
POLYGONACEAE (Buckwheat Family) Coccoloba uvifera (L.) L.	sea grape	X	*	-	-	-	-	-
PORTULACACEAE (Purslane Family) Portulaca oleracea L.	common purslane, pig-weed, 'ihi	X	-	-	+	+	-	-
Portulaca pilosa L.		X	-	-	+	+	-	+
PROTEACEAE (Protea Family) Grevillea robusta A. Cunn. ex R. Br.	silk oak, 'oka kilika	X	-	-	+	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
EUPHORBIACEAE (Spurge Family) Chamaesyce hirta (L.) Millsp.	hairy spurge, garden spurge	X	+	-	+	+	-	+
Euphorbia heterophylla L.	kaliko	X	-	-	-	-	-	+
Pedilanthus sp.	slipper flower	X	*	-	-	-	-	-
Phyllanthus debilis Klein ex Willd.	niruri	X	*	-	-	-	-	-
FABACEAE (Pea Family)								
Acacia farnesiana (L.) Willd.	klu	X	-	-	-	+	-	-
Crotalaria pallida Aiton	smooth rattlepod, pikakani	X	-	-	+	-	-	+
Desmodium tortuosum (Sw.) DC.	Florida beggarweed	X	-	-	-	-	-	+
Erythrina sandwicensis Degener	wiliwili	E	*	-	-	-	-	-
Indigofera suffruticosa Mill.	indigo, 'iniko	X	-	-	+	-	-	-
Leucaena leucocephala (Lam.) de Wit	koa-haole, ekoa	X	-	-	+	-	-	-
Pithecellobium dulce (Roxb.) Benth.	'opiuma	X	-	-	-	-	-	+
Prosopis pallida (Humb. & Bonpl. ex Willd.) Kunth	kiawe	X	+	+	+	+	+	+
Vigna unguiculata ssp. sesquipedalis (L.) Verdc.	yard-long bean, asparagus bean	X	*	-	-	-	-	-
GENTIANACEAE (Gentian Family) Centaurium erythraea Raf.	bitter herb	X	-	-	+	-	-	-
GOODENIACEAE (Goodenia Family) Scaevola sericea Vahl	naupaka, naupaka kahakai	I	+/*	+	-	-	-	-
LAMIACEAE (Mint Family)								
Hyptis pectinata (L.) Poit.	comb hyptis	X	-	-	+	-	-	+
Ocimum gratissimum L.	wild basil	X	-	-	+	+	+	-
MALVACEAE (Mallow Family)								
Abutilon grandifolium (Willd.) Sweet	hairy abutilon, mao	X	-	-	-	+	-	-
Abutilon incanum (Link) Sweet	hoary abutilon	I?	-	-	-	+	-	-

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Scientific name	Common name	Status	Vegetation type					
			c	p	h	k	s	r
RUBIACEAE (Coffee Family)								
<i>Hedyotis corymbosa</i> (L.) Lam.		X	.	.	.	.	.	+
<i>Ixora hybrida</i>	ixora	X	.	.	.	.	.	.
<i>Morinda citrifolia</i> L.	noni	P	+/*	.	.	.	.	.
<i>Richardia brasiliensis</i> Gomes	richardia	X	.	.	.	.	.	+
<i>Spermacoce mauritiana</i> Gideon		X	.	.	.	.	.	+
SAPINDACEAE (Soapberry Family)								
<i>Dodonaea viscosa</i> Jacq.	a'ali'i	I	.	.	+	.	.	.
SCROPHULARIACEAE (Figwort Family)								
<i>Bacopa monnieri</i> (L.) Wettst.	water hyssop	I	.	+	.	.	.	.
<i>Verbascum thapsus</i> L.	mullein	X	.	.	.	.	.	+
SOLANACEAE (Tomato Family)								
<i>Lycium sandwicense</i> A. Gray	'ohelo kai, 'ae'ae	I	+	+	.	.	.	.
<i>Lycopersicon pimpinellifolium</i> (Jusl.) Mill.	currant tomato	X	+	.	.	.	.	.
STERCULIACEAE (Cacao Family)								
<i>Waltheria indica</i> L.	'uhaloa, hi'aloa, kanakaloa	I?	+	+	+	+	+	+
VERBENACEAE (Verbena Family)								
<i>Lantana camara</i> L.	lantana, lakana	X	.	.	+	+	.	.

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Appendix C

List of Plant Species

PLANT SPECIES LIST --- Kona Coast State Park

A checklist of all those vascular plant species inventoried on the project site during the field studies and from the previous surveys by Char (1984, 1986a, 1986b, 1990, 1991) are presented below. The species are arranged alphabetically by families within each of three groups: Ferns and Fern Allies, Monocots, and Dicot. The taxonomy and nomenclature of the Ferns and Fern Allies follow the treatment by Lamoureux (1988), while the flowering plants, Monocots and Dicots, are in accordance with Wagner *et al.* (1990).

For each species, the following information is provided:

1. Scientific name with author citation.
2. Common English and/or Hawaiian name(s), when known.
3. Biogeographic status. The following symbols are used:
E = endemic = native only to the Hawaiian Islands.
I = indigenous = native to the Hawaiian Islands and also elsewhere.
P = Polynesian = plants originally of Polynesian introduction prior to Western contact (Cook's discovery of the islands in 1778); not native.
X = introduced or alien = all those plants brought to the islands by humans, intentionally or accidentally, after Western contact; not native.
4. Presence (+) or absence (-) of a particular species within each of six vegetation types recognized on the project site (see text for description). An asterisk (*) in the coastal vegetation column indicates that the plant occurs only in the landscaped area and house site along Mahai'ula Bay. A "+/*" sign in this column means that the species is established naturally along the coast, but is also planted in the landscaped area and house site.

C = Coastal Vegetation
P = Pond Vegetation
F = Fountain Grass Grassland
K = Kiawe Forest
S = Sparse Vegetation on 'A'a
R = Roadside Vegetation

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
Cyperus laevigatus L.	makaloa	I	-	+	-	-	-	-
Fimbristylis hawaiiensis Hillebr.	fimbristylis	E	-	-	+	-	-	-
Schoenoplectus californicus (C.A. Mey.) Palla	bulrush, kaluha	X?	-	+	-	-	-	-
Schoenoplectus lacustris (L.) Palla	great bulrush, 'aka'akai	I	-	+	-	-	-	-
LILIACEAE (Lily Family)								
Aloe vera L.	aloe	X	*	-	-	-	-	-
Crinum asiaticum L.	spider lily	X	*	-	-	-	-	-
PANDANACEAE (Hala Family)								
Pandanus tectorius S. Parkinson ex Z.	pandanus, hala	I	*	-	-	-	-	-
POACEAE (Grass Family)								
GI Aristida adscensionis L.	sixweeks threawn	X	-	-	+	+	-	-
Cenchrus ciliaris L.	buffelgrass	X	+	-	+	-	-	+
Cynodon dactylon (L.) Pers.	Bermuda grass, manienie	X	+	-	-	-	-	+
Eragrostis tenella (L.) P. Beauv. ex Roem. & Schult.	lovegrass	X	-	-	+	+	-	-
Heteropogon contortus (L.) P. Beauv. ex Roem. & Schult.	pili, pili grass	I	-	-	+	-	-	-
Panicum fauriei Hitchc.		E	-	-	-	-	+	-
Panicum torridum Gaud.	kakona	E	-	-	-	+	-	-
Pennisetum setaceum (Forssk.) Chiov.	fountain grass	X	+	+	+	+	+	+
Rhynchelytrum repens (Willd.) Hubb.	Natal redtop grass	X	-	-	+	-	-	+
Sporobolus virginicus (L.) Kunth	beach dropseed, 'aki'aki	I	+	+	-	-	-	-
Stenotaphrum secundatum (Walter) Kuntze	St. Augustine grass, buffalo grass, 'aki'aki haole	X	*	+	-	-	-	-
RUPPIACEAE (Ditchgrass Family)								
Ruppia maritima L.	ditchgrass, widgeon grass	I	-	+	-	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
FERNS & FERN ALLIES								
NEPHROLEPIDACEAE (Sword Fern Family)								
Nephrolepis multiflora (Roxb.) Jarrett ex Morton	hairy sword fern	X	-	-	+	-	+	-
OPHIOGLOSSACEAE (Adder's Tongue Family)								
Ophioglossum polyphyllum A. Braun	pololei	I	-	-	+	-	-	-
PSILOPAGEAE (Whisk Fern Family)								
Pilotum nudum (L.) Beauv.	moa, pipi	I	-	-	+	-	-	-
SINOPTERIDACEAE (Cliffbrake Family)								
81 Doryopteris decipiens (Hook.) J. Sm.	kumu-niu, manawahua, 'iwa'iwa	E	-	-	-	-	+	-
FLOWERING PLANTS								
MONOCOTS								
AGAVACEAE (Sisal Family)								
Cordyline fruticosa (L.) A. Chev.	ti, ki	P	*	-	-	-	-	-
Furcraea foetida (L.) Haw.	Mauritius hemp	X	-	-	+	-	-	-
ARECACEAE (Palm Family)								
Cocos nucifera L.	coconut, niu	P	+/*	+	-	-	-	-
Pritchardia affinis Becc.	loulu	E	*	-	-	-	-	-
CYPERACEAE (Sedge Family)								
Bolboschoenus maritimus ssp. paludosus (A. Nels.) T. Koyama	kaluha	I	-	+	-	-	-	-
Cladium jamaicense Crantz	saw grass, 'uki	I	-	+	-	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
ASTERACEAE (Daisy Family)								
Ageratum conyzoides L.	maile hohono	X	-	-	+	-	-	-
Bidens pilosa L.	Spanish needle, beggar's tick, ki	X	-	-	+	-	-	+
Conyza bonariensis (L.) Cronq.	hairy horseweed, 'ilioha	X	-	-	+	-	-	-
Crassocephalum crepidioides (Benth.) S. Moore	crassocephalum	X	-	-	+	-	-	+
Gnaphalium purpureum L.	purple cudweed	X	+	-	+	-	-	-
Lipochaeta lamarum (Gaud.) DC.	nehe	E	-	-	+	-	-	-
Pluchea symphytifolia (Mill.) Gillis	pluchea, sourbush	X	+	+	+	-	+	-
Tridax procumbens L.	coatbuttons	X	-	-	+	-	-	+
Vernonia cinerea var. parviflora (Reinw.) DC.	little ironweed	X	-	-	+	+	-	-
Xanthium strumarium var. canadense (Mill.) Torr. & A. Gray	cocklebur, kikania	X	+	-	-	-	-	-
21 BORAGINACEAE (Heliotrope Family)								
Cordia subcordata Lam.	kou	P	+/*	+	-	-	-	-
Heliotropium anomalum var. argenteum A. Gray	hinahina, hinahina ku kahakai	E	+	-	-	-	-	-
Heliotropium curassavicum L.	kipukai, nena	I	-	+	-	-	-	-
Tournefortia argentea L.f.	tree heliotrope	X	+/*	+	-	-	-	-
BUDDLEIACEAE (Butterfly Bush Family)								
Buddleia asiatica Lour.	dog tail, huelo 'ilio	X	-	-	-	-	-	+
CACTACEAE (Cactus Family)								
Opuntia cochenillifera (L.) Mill.	cochineal cactus	X	*	-	-	-	-	-
Opuntia ficus-indica (L.) Mill.	prickly pear, panini	X	-	-	+	+	-	-
CAPPARACEAE (Caper Family)								
Capparis sandwichiana DC.	maia pilo, pua pilo	E	+	-	+	-	+	-
Cleome gynandra L.	wild spider flower, hohohina	X	+	-	+	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
DICOTS								
AIZOACEAE (Fir-marigold Family)								
Sesuvium portulacastrum (L.) L.	'akulikuli	I	+	+	-	-	-	-
AMARANTHACEAE (Amaranth Family)								
Amaranthus spinosus L.	spiny amaranth, pakai kuku	X	-	-	-	-	-	+
Amaranthus viridus L.	slender amaranth, pakai	X	-	-	-	+	-	-
Gomphrena globosa L.	globe amaranth, bozu, lehua mau loa	X	*	-	-	-	-	-
ANACARDIACEAE (Mango Family)								
Schinus terebinthifolius Raddi	Christmas berry, wilelaiki	X	+	-	-	-	-	-
22 APIACEAE (Parsley Family)								
Centella asiatica (L.) Urb.	Asiatic pennywort, pohe kula	X	*	-	-	-	-	-
APOCYNACEAE (Periwinkle Family)								
Cascabela thevetia (L.) Lippold	be-still-tree	X	*	-	-	-	-	-
Nerium oleander L.	oleander, 'oleana	X	*	-	-	-	-	-
ARALIACEAE (Ginseng Family)								
Schefflera actinophylla (Endl.) Harms	octopus tree, umbrella tree	X	*	-	-	-	-	-
ASCLEPIADACEAE (Milkweed Family)								
Calotropis gigantea (L.) W.T. Aiton	crown flower, puaka-launu	X	*	-	-	-	-	-
Cryptostegia grandiflora (Roxb.) R. Br.	Indian rubber plant	X	*	-	-	-	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
EUPHORBIACEAE (Spurge Family)								
Chamaesyce hirta (L.) Millsp.	hairy spurge, garden spurge	X	+	-	+	+	-	+
Euphorbia heterophylla L.	kaliko	X	-	-	-	-	-	+
Pedilanthus sp.	slipper flower	X	*	-	-	-	-	-
Phyllanthus debilis Klein ex Willd.	niruri	X	*	-	-	-	-	-
FABACEAE (Pea Family)								
Acacia farnesiana (L.) Willd.	klu	X	-	-	-	+	-	-
Crotalaria pallida Aiton	smooth rattlepod, pikakani	X	-	-	+	-	-	+
Desmodium tortuosum (Sw.) DC.	Florida beggarweed	X	-	-	-	-	-	+
Erythrina sandwicensis Degener	wiliwili	E	*	-	-	-	-	-
Indigofera suffruticosa Mill.	indigo, 'iniko	X	-	-	+	-	-	-
Leucaena leucocephala (Lam.) de Wit	koa-haole, ekoa	X	-	-	+	-	-	-
Pithecellobium dulce (Roxb.) Benth.	'opiuma	X	-	-	-	-	-	+
Prosopis pallida (Humb. & Bonpl. ex Willd.) Kuntz	kiawe	X	+	+	+	+	+	+
Vigna unguiculata ssp. sesquipedalis (L.) Verdc.	yard-long bean, asparagus bean	X	*	-	-	-	-	-
GENTIANACEAE (Gentian Family)								
Gentarium erythraea Raf.	bitter herb	X	-	-	+	-	-	-
GOODENIACEAE (Goodenia Family)								
Scaevola sericea Vahl	naupaka, naupaka kahakai	I	+/*	+	-	-	-	-
LAMIACEAE (Mint Family)								
Hyptis pectinata (L.) Poit.	comb hyptis	X	-	-	+	-	-	+
Ocimum gratissimum L.	wild basil	X	-	-	+	+	+	-
MALVACEAE (Mallow Family)								
Abutilon grandifolium (Willd.) Sweet	hairy abutilon, mao	X	-	-	-	+	-	-
Abutilon incanum (Link) Sweet	hoary abutilon	I?	-	-	-	+	-	-

Scientific name	Common name	Status	Vegetation type					
			c	p	f	k	s	r
CARICACEAE (Papaya Family)								
Carica papaya L.	papaya, mikana	X	*	-	-	-	-	-
CASUARINACEAE (Ironwood Family)								
Casuarina equisetifolia L.	ironwood, paina	X	+/*	-	-	-	-	-
CHENOPODIACEAE (Goosefoot Family)								
Atriplex semibaccata R. Br.	Australian salt bush	X	+	+	-	-	-	-
Chenopodium carinatum R. Br.	keeled goosefoot	X	-	-	+	+	-	-
Chenopodium murale L.	'aheaha	X	+	-	+	+	-	-
CLUSIACEAE (Mangosteen Family)								
Calophyllum inophyllum L.	kamani, kamanu	P	*	-	-	-	-	-
CONVOLVULACEAE (Morning-glory Family)								
Ipomoea indica (J. Burm.) Merr.	koali 'awa	I	-	-	+	-	-	-
Ipomoea pes-caprae ssp. brasiliensis (L.) Ooststr.	beach morning-glory, pohuehue	I	+	+	-	-	-	-
Jacquemontia ovalifolia ssp. sandwicensis (A. Gray) Robertson	pa'u o Hi'i'aka	E	+	-	-	-	-	-
CRASSULACEAE (Orpine Family)								
Kalanchoe pinnata (Lam.) Pers.	air plant	X	*	-	-	-	-	-
CUCURBITACEAE (Squash Family)								
Cucumis dipsaceus Ehrenb. ex Spach	wild cucumber, spiny cucumber	X	+	-	+	+	-	-
CUSCUTACEAE (Dodder Family)								
Cuscuta sandwichiana Choisy	kauna'oa	E	+	-	-	-	-	-

Scientific name	Common name	Status	Vegetation type						
			c	p	f	k	s	r	
RUBIACEAE (Coffee Family)			X	-	-	-	-	-	+
Hedyotis corymbosa (L.) Lam.	ixora noni richardia	X	*	-	-	-	-	-	-
Ixora hybrids		P	+/*	-	+	-	-	-	-
Morinda citrifolia L.		X	-	-	-	-	-	-	+
Richardia brasiliensis Gomes		X	-	-	-	-	-	-	+
Spermacoce mauritiana Gideon		X	-	-	-	-	-	-	+
SAPINDACEAE (Soapberry Family)									
Dodonaea viscosa Jacq.	a'ali'i	I	-	-	+	-	-	-	-
SCROPHULARIACEAE (Figwort Family)									
Bacopa monnieri (L.) Wettst.	water hyssop mullein	I	-	+	-	-	-	-	-
Verbascum thapsus L.		X	-	-	-	-	-	-	+
SOLANACEAE (Tomato Family)									
Lycium sandwicense A. Gray	'ohelo kai, 'ae'ae	I	+	+	-	-	-	-	-
Lycopersicon pimpinellifolium (Jusl.) Mill.	currant tomato	X	+	-	-	-	-	-	-
STERCULIACEAE (Cacao Family)									
Waltheria indica L.	'uhaloa, hi'aloa, kanakaloa	I?	+	+	+	+	+	+	+
VERBENACEAE (Verbena Family)									
Lantana camara L.	lantana, lakana	X	-	-	+	+	-	-	-

Scientific name	Common name	Status	Vegetation type						
			c	p	f	k	s	r	
MOLLUGINACEAE (Carpetweed Family)									
Mollugo cerviana (L.) Ser.	threadstem carpetweed	X	+	-	+	-	-	-	+
MORINGACEAE (Moringa Family)									
Moringa oleifera Lam.	horseradish tree, kalamungai	X	*	-	-	-	-	-	-
NYCTAGINACEAE (Four-o'clock Family)									
Boerhavia coccinea Mill.	red-flowered boerhavia alena bougainvillea	X	+	-	-	-	-	-	+
Boerhavia repens L.		I	+	-	-	-	-	-	-
Bougainvillea hybrids		X	*	-	-	-	-	-	-
PAPAVERACEAE (Poppy Family)									
Argemone glauca (Nutt. ex Prain) Pope	native poppy, puakala	E	+	-	+	-	+	-	-
POLYGONACEAE (Buckwheat Family)									
Coccoloba uvifera (L.) L.	sea grape	X	*	-	-	-	-	-	-
PORTULACACEAE (Purslane Family)									
Portulaca oleracea L.	common purslane, pig- weed, 'ihi	X	-	-	+	+	-	-	-
Portulaca pilosa L.		X	-	-	+	+	-	-	-
PROTEACEAE (Protea Family)									
Grevillea robusta A. Cunn. ex R. Br.	silk oak, 'oka kilika	X	-	-	+	-	-	-	-

281

Appendix D

Aquatic Survey

RECEIVED
DIVISION OF
STATE PARKS
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

January 29, 1996
FEB 1 12 10 PM '96

- ADMINISTRATOR
- ASST. DIR.
- PLANNING
- RES. MGMT.
- PROTECTION
- STATE PARKS
- STATE TRAILS
- INTEREST
- FOR
- FOUNDED/POST/STAFF IN
- CONSERVATION & REC.
- RECREATION
- REGULATORY
- RESEARCH
- INFO.
- TRAINING
- STATE COURT

MEMORANDUM

TO: Sherrie Samuels, Planner
Division of State Parks

FROM: Robert T. Nishimoto
Aquatic Biologist

RE: Marine Survey of Kona Coast State Park

INTRODUCTION

We conducted a marine survey on November 21, 1995, in the vicinity of Mahaiula Bay, site of the Kona Coast State Park. This survey was conducted at the request of State Park planner, Sherrie Samuels, to determine abundance and composition of the fish fauna in the area. The data will provide a "snapshot" of the fish fauna in the park area.

METHOD

The fish population was estimated by establishing two 100 yards long transect lines at the northern and southern entrance to the bay (Figure 1). The fish was censused by using SCUBA and estimating the number, size, and species of fish observed along the line. The data was summarized using a computer program developed by W. Ikehara of the Division of Aquatic Resources.

RESULTS

A total of 25 different species of fishes were observed. They were primarily schooling, demersal, and juvenile fishes (Table 1). These fishes primarily belonged to the damselfish, wrasse, and surgeonfish families, typical of shallow water fish assemblage along this coastline.

Fishes sought by recreational fishermen, such as surgeonfish (puaulu, kala) and goatfish (moano) were present but in relatively low numbers. Other recreational important fishes, such as 'ama'ama, moi, and manini were not observed during this fish count. This was noted during the release of manini findings at Mahaiula for our stock enhancement project.

Memorandum to
 Sherrie Samuels
 January 29, 1996
 Page Two

RECOMMENDATION

1. Conduct a more complete marine survey of this area, especially if this pristine bay will be a destination to increased water activities such as fishing, snorkeling, boating, surfing, etc. Coral reef invertebrates, such as corals, worms, urchins, etc., and the algae species should be included in this census.
2. Establish permanent transect sites in Mahaiula Bay to monitor coral health and cover as an indicator species to the potential impact of both consumptive (spearrifishing, fish collection and nonconsumptive (recreational) diving on the reef. We have established coral reef monitoring sites at other heavily utilized sites such as Kealahou Bay MLCB, Red Hill FMA, etc. The proposed Kona Coast State Park would be an ideal monitoring site since we can collect baseline coral health data prior to shoreline improvements to the park and the concomitant increasing public use of the marine resources.

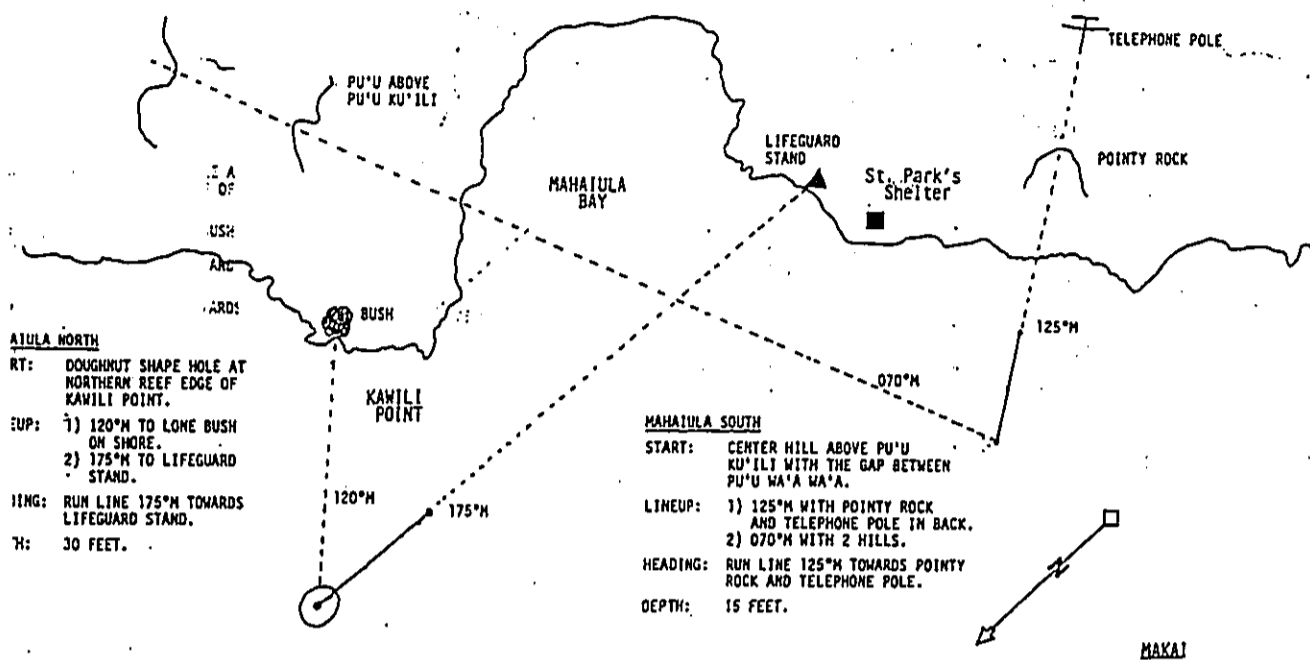


Figure 1

Table 1. List of all fish species found at Mahaiula Kona Coast State Park.

Species Name	Common Name
1. <u>Acanthurus nigrofuscus</u>	Lavender tang
2. <u>Acanthurus nigricris</u>	Blue-line surgeonfish
3. <u>Acanthurus olivaceus</u>	Orangeband surgeonfish
4. <u>Acanthurus blochii</u>	Ringtail surgeonfish
5. <u>Naso unicornis</u>	Bluespine unicornfish
6. <u>Pseudocheilinus octotaenia</u>	Eightline wrasse
7. <u>Thalassoma duperrey</u>	Saddle wrasse
8. <u>Coris gaimard</u>	Yellowtail coris
9. <u>Stethojulis balteata</u>	Belted wrasse
10. <u>Halichoeres ornatus</u>	Ornate wrasse
11. <u>Parupeneus multifasciatus</u>	Manybar goatfish
12. <u>Plectroglyphidodon imparipennis</u>	Bright-eye damselfish
13. <u>Plectroglyphidodon sondonis</u>	Haw'n rock damselfish
14. <u>Plectroglyphidodon johnstonianus</u>	Blue-eye damselfish
15. <u>Chromis vanderbilti</u>	Blackfin chromis
16. <u>Chromis agilis</u>	Agile chromis
17. <u>Chaetodon unimaculatus</u>	Teardrop butterflyfish
18. <u>Chaetodon quadrimaculatus</u>	4 spot butterflyfish
19. <u>Canthigaster jactator</u>	Haw'n whitespotted toby
20. <u>Rhinacanthus rectangulus</u>	Picasso triggerfish
21. <u>Ostracion meleagris</u>	Spotted boxfish
22. <u>Paracirrhites arcatus</u>	Arc-eye hawkfish
23. <u>Paracirrhites forsteri</u>	Blackside hawkfish
24. <u>Sufflamen bursa</u>	Lei triggerfish
25. <u>Aulostomus chinensis</u>	Trumpetfish

Table 2. Ten Most Abundant Fish Species found at Kona Coast State Park (11-21-95).

Species Name	Average number per acre
1. <u>Chromis vanderbilti</u> (Blackfin Chromis)	6970
2. <u>Thalassoma duperrey</u> (saddle wrasse)	806
3. <u>Acanthurus nigrofuscus</u> (lavender tang)	566
4. <u>Paracirrhites arcatus</u> (arc-eye hawkfish)	501
5. <u>Stethojulis balteata</u> (orangeband wrasse)	370
6. <u>Ostracion meleagris</u> (spotted boxfish)	218
7. <u>Plectroglyphidodon johnstonianus</u> (blue-eye damselfish)	196
8. <u>Acanthurus olivaceus</u> (orangeband surgeonfish)	196
9. <u>Parupeneus multifasciatus</u> (manybar goatfish)	175
10. <u>Plectroglyphidodon imparipennis</u> (bright-eye damselfish)	109

Table 3. Ten Most Heaviest Fish Species found at Kona Coast State Park (11-21-95).

	Average pounds per acre
1. <u>Acanthurus blochii</u> (ringtail surgeonfish)	47.73
2. <u>Acanthurus olivaceus</u> (orangeband surgeonfish)	46.33
3. <u>Rhinecanthus rectangulus</u> (picasso triggerfish)	38.53
4. <u>Chromis vanderbilti</u> (blackfin chromis)	25.35
5. <u>Paracirrhites arcatus</u> (arc-eye hawkfish)	15.46
6. <u>Naso unicornis</u> (bluespine unicornfish)	13.50
7. <u>Thalassoma duperrey</u> (saddle wrasse)	13.31
8. <u>Sufflamen bursa</u> (lei triggerfish)	8.37
9. <u>Aulostomus chinensis</u> (trumpetfish)	7.17
10. <u>Stethoquilis balteata</u> (belted wrasse)	5.40

Appendix F

Traffic Impact Analysis - 1996

DRAFT

**TRAFFIC IMPACT ASSESSMENT REPORT
FOR
KONA COAST STATE PARK**

December 1996

Kona, Hawaii

Prepared for:

Group 70 International

Prepared By:

Pacific Planning & Engineering, Inc.
1221 Kaploani Boulevard, Suite PH 60
Honolulu, Hawaii 96814

DRAFT

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FOREWORD

The traffic forecasts shown within this report's figures and tables are the direct result of Pacific Planning & Engineering, Inc.'s proprietary forecasting and analytical tools. For report editing and review purposes, some or all of the forecast values have been rounded to the nearest five vehicles from our mathematical results, although we do not imply this level of accuracy can exist in any forecast method. The rounded values, however, reasonably quantify the forecasted traffic volumes for the purposes of this study.

Analytical methods are based on the 1994 edition of the Highway Capacity Manual. The 1994 Highway Capacity Manual contains significant changes to the evaluation methods of level-of-service, and comparisons with previous versions would not be valid.

The findings and conclusions contained herein are based solely in terms of roadway capacity. No inference should be made from the conclusions regarding traffic safety.

The Island of Hawaii Long Range Highway Plan was used as a basis for estimating future traffic on Queen Kaahumanu Highway for the year 2010. However, research into actual development in Hawaii shows slower growth. Therefore, the forecasts shown for the year 2010 could be significantly less by the year 2010.

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EXECUTIVE SUMMARY

Pacific Planning & Engineering, Inc. (PPE) was engaged to identify and assess potential future traffic impacts that would be caused by the proposed expansion of facilities at the Kona Coast State Park in Kona, Hawaii.

Project Description

The Kona Coast State Park is planning to expand the existing park areas provide improved recreation facilities. The project is situated along the coast line of the park boundaries. The conceptual master plan of the project calls for:

- Improved road access with a total of ³²⁵~~280~~ parking stalls *plus 175 or more*
- Low intensity level of facilities for visitors, activities and a caretaker's residence
- Picnic tables, grilles, restrooms
- Enhancement of wilderness quality of park

The project is located in Kona on the Big Island of Hawaii. Figure 1 depicts the general location of the site. Access to the new facilities will be via two main paved roads for standard automobiles, which will terminate at new or improved parking areas at southern and northern locations. There is no internal road connecting the two locations.

Methodology

Traffic analysis of 2010 traffic forecasts was conducted for the following intersections to determine the relative impact of the proposed project:

- Queen Kaahumanu Highway with existing unpaved access to Park
- Queen Kaahumanu Highway with a new north access to Park

These intersections represent the areas where project traffic would have the largest impact in terms of concentration, other traffic streams, and major roadways. Photos of these areas are shown in Figures ES-1 and ES-2.

Future traffic was forecasted at the study intersections based on the approved planning values contained in the Hawaii County Long Range Highway Plan (LRHP). The major objective was to convert the Plan's stated values for average daily traffic assignments to weekday peak hour intersection turning movement volumes. These turning movement volumes are essential for the Highway Capacity Manual analyses. This was accomplished by the following method:

- reviewing the Island of Hawaii Long Range Highway Plan,
- adapting various data from that report such as daily average daily traffic forecasts as a basis to obtain weekday peak hour traffic volumes,
- traffic generated by the project uses.

This study assesses the impact on the study intersections by determining the level-of-service (LOS) for existing, 2010 forecast without project, and 2010 forecast with project scenarios.

The Kona Coast State Park completion schedule is to be completed in various phases. If all of the projects were completed by the year 2010, the impacts described in the following sections would fairly represent the traffic needs of the project.

Conclusions and Recommendations

The Kona Coast State Park project will not have a significant impact on traffic flow at the project access intersections along Queen Kaahumanu Highway.

Even without the project, drivers entering or exiting the project access roads are expected to experience long to very long delays (LOS E or F) due to the increase in traffic volumes along Queen Kaahumanu Highway. Similar traffic conditions will be experienced by existing and future intersections along Queen Kaahumanu Highway. Left turning vehicles will experience increasingly greater wait times before entering Queen Kaahumanu Highway traffic flows.

To provide greater access to the park project, the following actions might be taken:

- For the intersections along Queen Kaahumanu Highway, provide a fully channelized intersection with exclusive left turn lanes and acceleration and deceleration lanes.
- Signalize the intersection of the Queen Kaahumanu Highway and the existing access road when warranted. If signalized, the intersection will operate at LOS A.

For the intersection of Queen Kaahumanu Highway and the north access road, signalization may not be warranted due to the low traffic volumes on the access road.

The traffic volumes forecasted for year 2010 were based on future land uses in the Island of Hawaii Long Range Highway Plan. The Plan called for expanding Queen Kaahumanu Highway to four lanes divided, with a possibility of frontage roads and requirements for an access-controlled type facility.



Figure ES-1. Queen Kaahumanu Highway with Existing Access



Figure ES-2. Queen Kaahumanu Highway with North Access

Since the publication of that report in 1991, land use projections have been decreased from those identified in the Plan due to the economic situation on the Big Island as well as the rest of the State. Fewer land uses mean smaller traffic volumes on the roadways. Therefore, a four lane Queen Kaahumanu Highway may not be necessary by the year 2010 or even later. The recommended intersection improvements would still be applicable for a two lane Queen Kaahumanu Highway.

PROJECT DESCRIPTION

The Kona Coast State Park is planning to expand the existing park areas provide improved recreation facilities. The project is situated along the coast line of the park boundaries. The conceptual master plan of the project calls for:

- Improved road access with a total of ²²⁴250 parking stalls
- Low intensity level of facilities for visitors, activities and a caretaker's residence
- Picnic tables, grilles, restrooms
- Enhancement of wilderness quality of park

The project is located in Kona on the Big Island of Hawaii. Figure 1 depicts the general location of the site. Access to the new facilities will be via two main paved roads for standard automobiles, which will terminate at new or improved parking areas at southern and northern locations. There is no internal road connecting the two locations.

EXISTING CONDITIONS

An inventory of existing conditions was conducted to establish the current traffic conditions in the area and to provide a basis for estimating the potential traffic impact of the proposed project. The review included the land uses in the area, roadway facilities, and existing traffic conditions.

Land Uses

The land uses immediately surrounding and near to the project consist mainly of adjacent vacant lava areas. The areas are mostly owned by the State of Hawaii.

Roadway Facilities

The existing roadway network in the vicinity of the project is shown in Figure 1. The major arterial in the area is Queen Kaahumanu Highway.

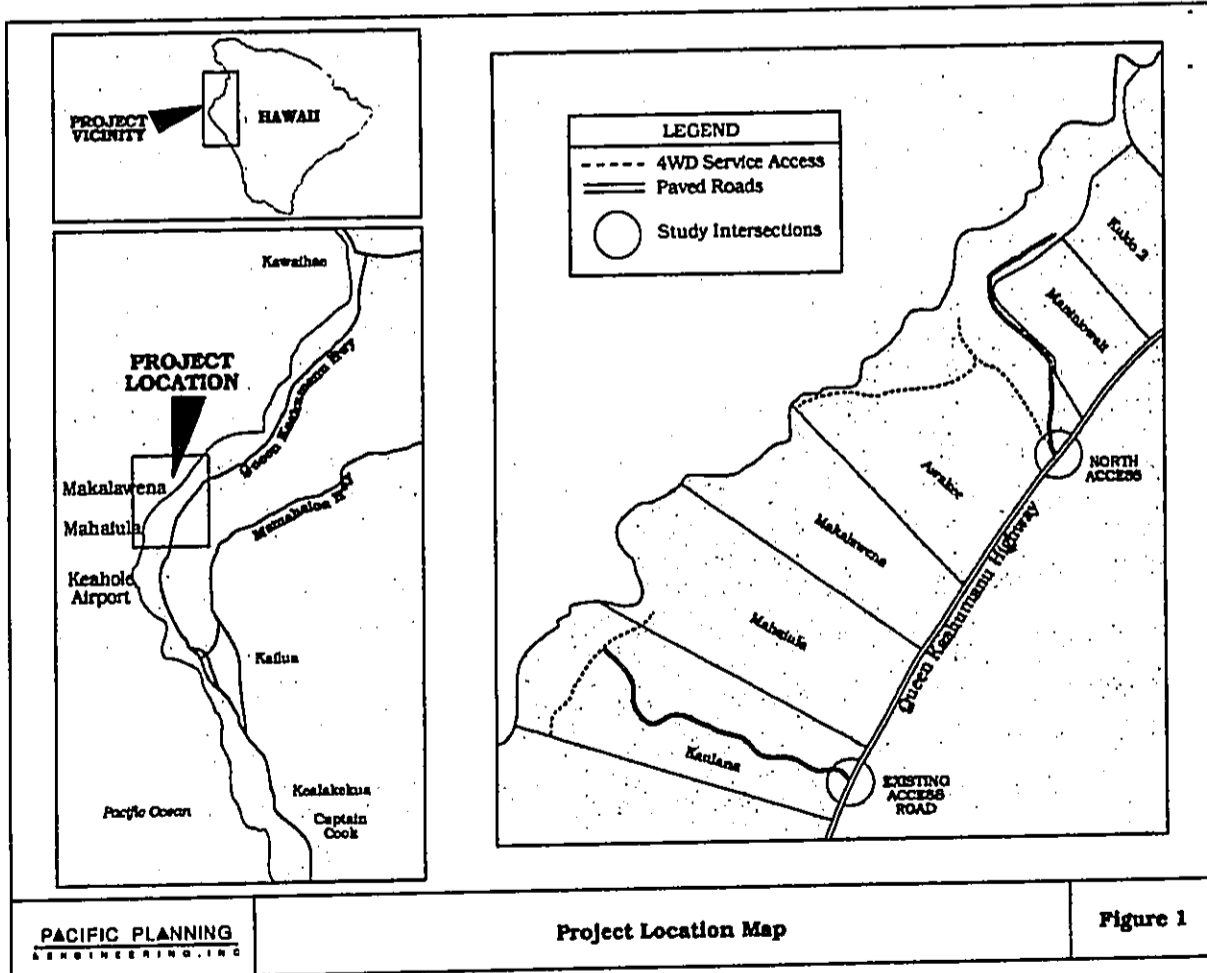
Queen Kaahumanu Highway is the main highway in the South Kohala and Kona districts, running in a north-south direction along the coastline between Kailua-Kona and Kawahae. It is a State maintained two-lane undivided highway with a 24-foot wide pavement and a posted speed limit varying between 35 to 55 miles per hour (mph).

The main park access road is poor quality with numerous potholes and large rocks along the road. The north access road is suitable for four wheel drive vehicles only.

Traffic Conditions

Traffic counts were taken at the following study intersections:

- Queen Kaahumanu Highway with existing access



Project Location Map

Figure 1

- Queen Kaahumanu Highway with north access

State Department of Transportation 24-hour count data was checked to identify the peak roadway periods for the study. A weekday afternoon peak hour was selected for the roadway condition, and a weekend mid-day hour was chosen for the park traffic conditions.

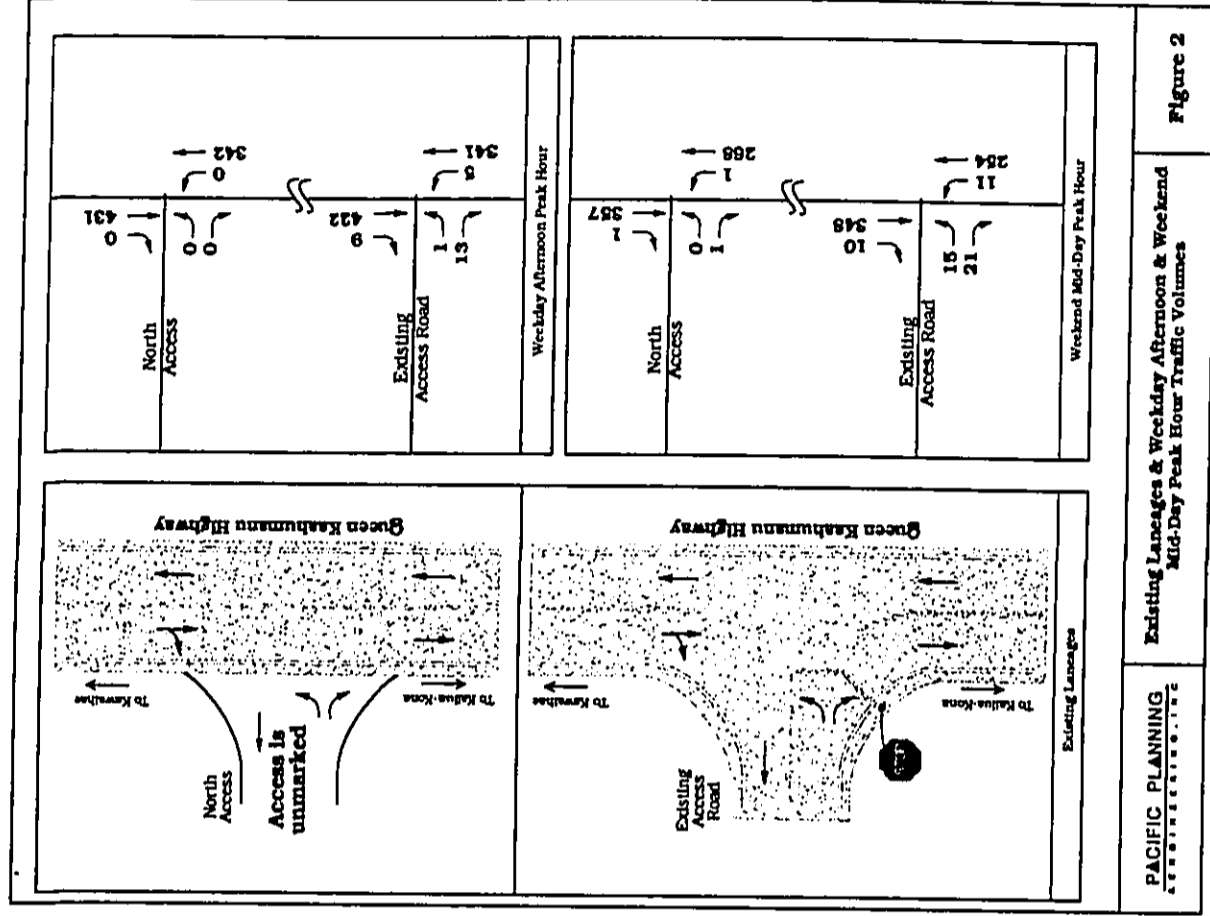
The counts were taken on Friday, December 2, 1994 between 2:30 and 4:15 pm and Saturday, December 3, 1994 between 11:00 am and 1:00 pm. These counts were used as the baseline condition to which future estimated traffic volumes were added.

Manual counts were taken of passenger cars, trucks and buses by turning movements and approaches. During the study periods, the weather was clear and the roadway pavement was dry. The manual traffic count data for the study periods is summarized in Appendix A.

The following observations were made at the time of the survey:

- Traffic flowed without any observed difficulty during the study periods.
- There was no pedestrian traffic.

Figure 2 shows the existing laneway and traffic volumes during the study peak hours.



FUTURE CONDITIONS

A survey was conducted for any approved planned developments in the immediate area for inclusion in the total future traffic conditions at the study intersection.

Land Uses

Because of the long-term nature of the study year, the Island of Hawaii Long Range Highway Plan published in 1991 is the basis for estimating future land uses based on population and employment data for the year 2010.

Roadway Facilities

Because of the long-term nature of the study year, the Island of Hawaii Long Range Highway Plan was used to determine future roadway improvements. The Plan describes roadway improvements for Queen Kaahumanu Highway by the year 2000.

The Plan calls for widening Queen Kaahumanu Highway to a 4-lane, access controlled freeway from Kawaihae Road to Palani Road. Access to Queen Kaahumanu Highway would be limited to grade separated interchanges at locations to be determined by highway design criteria. Traffic between adjoining properties along the highway would be provided by a system of frontage roads that would also connect to the proposed grade separated interchanges.

The highway improvements are planned to be implemented by the year 2010. If these improvements are not completed by then, widening Queen Kaahumanu Highway to provide passing lanes in each direction is provided by the plan.

PROJECTED TRAFFIC CONDITIONS

Future traffic was forecasted for the year 2010 for traffic conditions without and with the Park expansion project at the two study intersections.

Future Traffic Without Project

Future traffic without the proposed project was forecasted by reviewing the Island of Hawaii Long Range Highway Plan (May 1991). The plan provides a forecast of Average Daily Traffic (ADT) volumes for the year 2010 on critical roadways within the Hilo area.

The ADT volumes were reduced to morning and afternoon peak hour traffic volumes using k (peak hour percentages) and d (directional percentages) factors from DOT data and existing counts. Turning movements were estimated based on existing data as well as 2010 forecasts of population and employment. Saturday forecasts were estimated by a proportional comparison with existing Friday and Saturday counts and the 2010 weekday forecast. The resultant values for the 2010 weekday morning and afternoon peak hour traffic volumes without project traffic are shown in Figure 3.

Future Traffic With Project

Future traffic with the project was forecasted by adding traffic generated by the proposed project with the forecasted traffic without the project. Future traffic with the project was forecasted for the 2010 weekday afternoon and Saturday mid-day peak hours. The resulting traffic volume forecasts are shown in Figure 4.

The standard three step procedure of trip generation, trip distribution, and traffic assignment was used to estimate peak hour traffic from the proposed project.

Vehicle trips generated by the project were estimated using the project land uses and trip rates from the ITE Trip Generation Report¹. No rates were available for the weekday afternoon peak hour, so the weekend rates were used. This is a conservative value, since weekend rates are higher for parks. Table 1 shows the estimated number of project trips.

Land Use	Parameter	Weekday Afternoon Peak Hour		Weekend Mid-day Peak Hour	
		Enter	Exit	Enter	Exit
Park	1900 acres	48	49	48	49

¹ Trip Generation Report, by the Institute of Transportation Engineers, Fifth Edition, 1991.

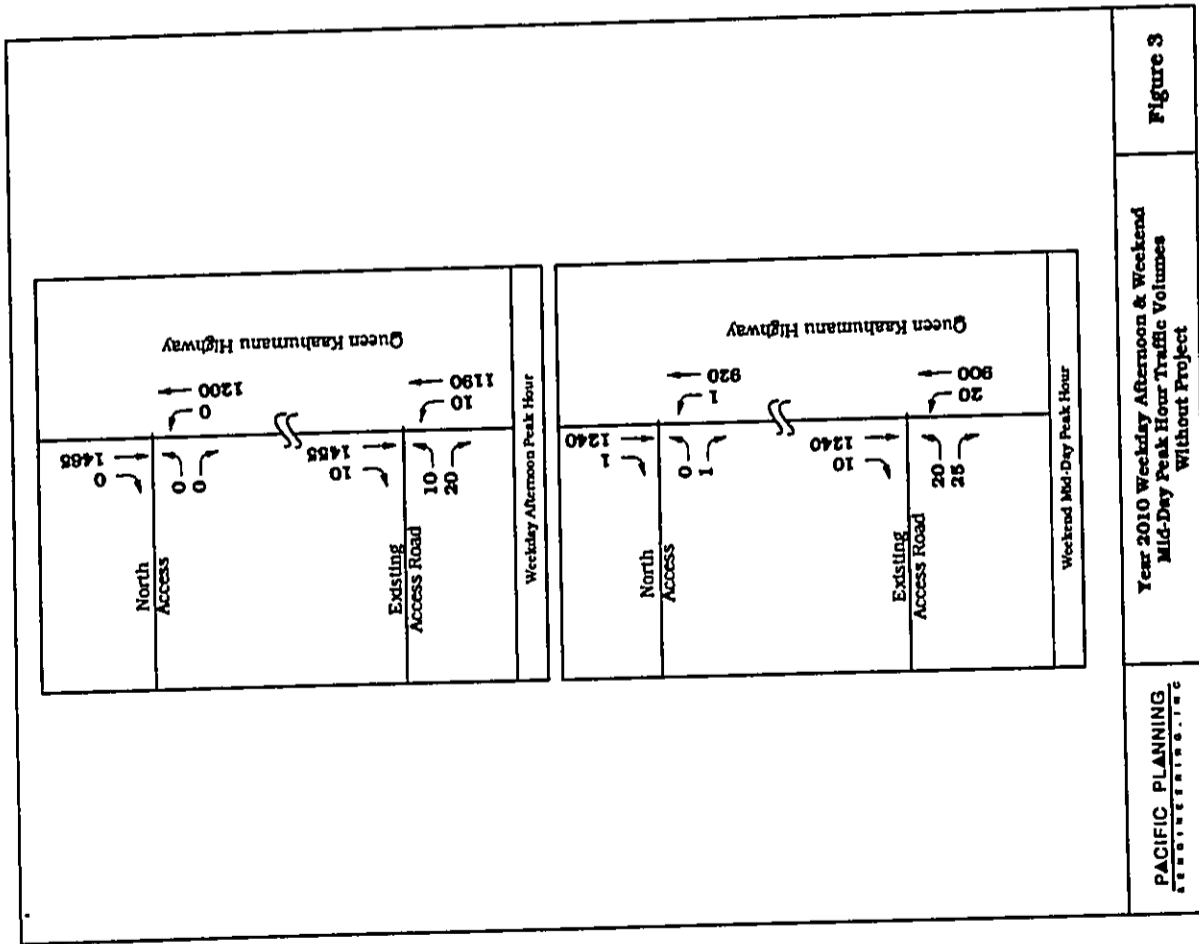
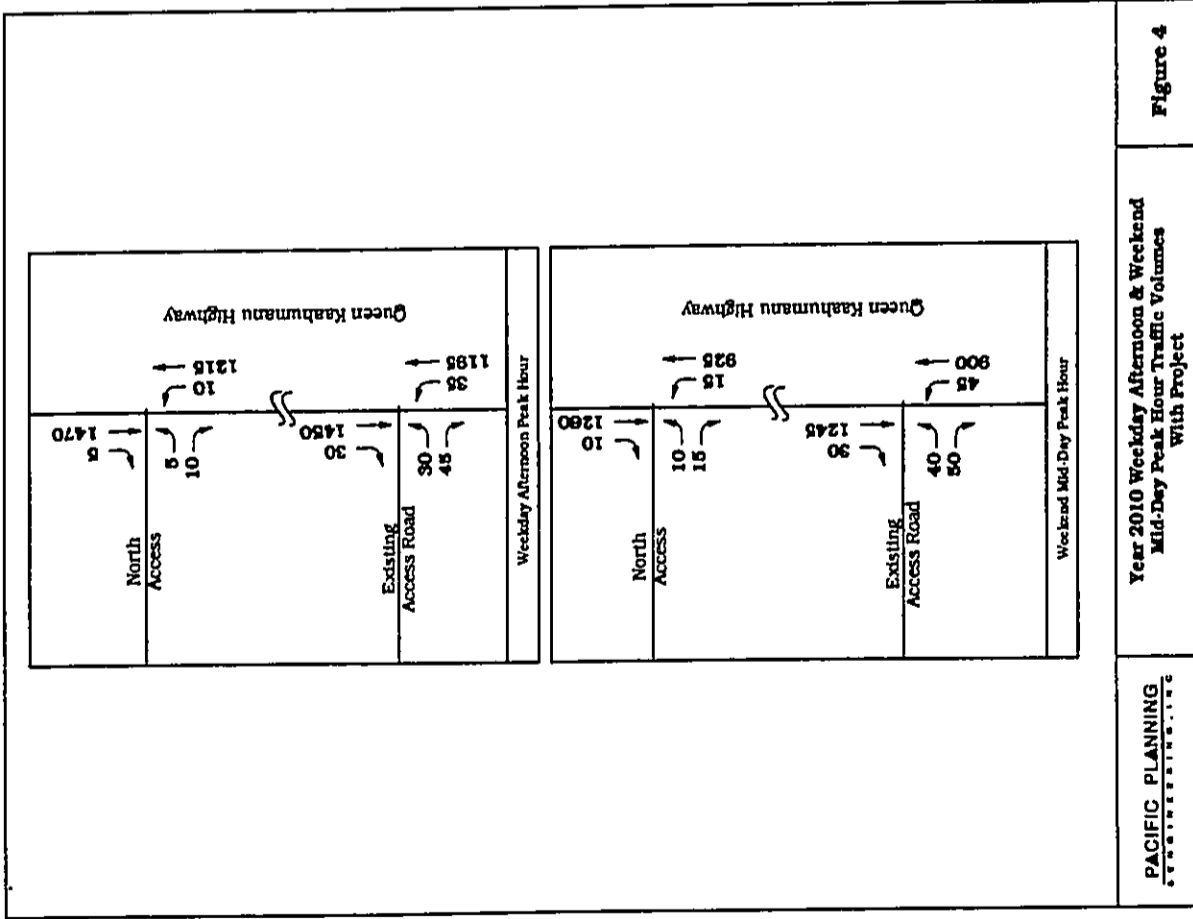


Figure 3
Year 2010 Weekday Afternoon & Weekend Mid-Day Peak Hour Traffic Volumes Without Project

The trip distribution step estimates the distribution of vehicle trips to their predicted destinations and origins. Trips were distributed based on the estimated forecasted population of the Kona District from the Island of Hawaii Long Range Highway Plan. Trips were distributed generally with 40% to/from the north and 60% to/from the south.

The traffic assignment step assigns vehicle trips to specific routes on the roadway network that will take the driver from origin to destination. All trips were assigned to Queen Kaahumanu Highway since it is the only roadway.



TRAFFIC ANALYSIS

Analyses were conducted on the following study intersections to determine the relative impact of the proposed improvement project on the local roadway system and to determine improvements to mitigate the impact of the project:

- Queen Kaahumanu Highway with existing access road
- Queen Kaahumanu Highway with north access

Analysis Methods

The study intersections were analyzed using methods outlined in the Highway Capacity Manual (HCM), Special Report 209, 1994. Appendix B provides detailed definitions of the "level-of-service" (LOS) used in this study. (The reader should note that certain significant changes released in early 1995 have been made to the HCM. These changes are incorporated in our analysis.)

Unsignalized Intersection Analysis is determined by total delay which is defined as the total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue position. LOS for unsignalized intersections is also classified into six categories ranging from less than 5 seconds of average total delay per vehicle (LOS A) to over 45 seconds of average total delay per vehicle (LOS F).

Queen Kaahumanu Highway was assumed to be widened to four lanes to accommodate future traffic forecasted in the Long Range Highway Plan. This laneage was assumed for the "without project" and "with project" cases to determine the relative impact of the project.

Analysis Results

The results of the analysis for the study intersections are shown in Tables 2 and 3 and described below.

Queen Kaahumanu Highway with Existing Access (Unsignalized)

- Presently, motorists exiting from the access road experience LOS B or better during both study periods.

Motorists making left-turns from Queen Kaahumanu Highway experience LOS A conditions.

- Without the project, the left-turn movement from the access road drops to LOS F during both peak hours. ^{why? is it?}
- With the project, during the morning peak hour, all movements continue to operate at the same LOS as the "without project" case.

Queen Kaahumanu Highway with North Access (Unsignalized)

- Presently, motorists exiting from the access road experience LOS B or better during both study periods.

Motorists making left-turns from Queen Kaahumanu Highway experience LOS A conditions.

- Without the project, the left-turn movement from the access road drops to LOS F during the weekday afternoon peak hour and to LOS E during the weekend mid-day peak hour.

With the project, during the morning peak hour, the left-turn movement from the access road drops to LOS F during the weekend mid-day peak hour.

MITIGATION

Table 2 - Queen Kaahumanu Highway with Existing Access - Unsignalized

Intersection / Movement	LOS (delay-seconds/vehicle)		
	Existing	2010 Without Project	2010 With Project
Weekday Afternoon Peak Hour			
Northbound LT from Queen Kaahumanu Hwy	A (8)	C (13)	C (15)
Eastbound LT/RT from Access Rd	A (8)	F (>45)	F (>45)
Weekend Mid-Day Peak Hour			
Northbound LT from Queen Kaahumanu Hwy	A (9)	C (10)	C (12)
Eastbound LT/RT from Access Rd	B (6)	F (>45)	F (>45)

Table 3 - Queen Kaahumanu Highway with North Access - Unsignalized

Intersection / Movement	LOS (delay-seconds/vehicle)		
	Existing	2010 Without Project	2010 With Project
Weekday Afternoon Peak Hour			
Northbound LT from Queen Kaahumanu Hwy	A (3)	F (>45)	C (14)
Eastbound LT/RT from Access Rd	B (7)	F (>45)	F (>45)
Weekend Mid-Day Peak Hour			
Northbound LT from Queen Kaahumanu Hwy	A (3)	B (10)	C (11)
Eastbound LT/RT from Access Rd	B (6)	E (44)	F (>45)

Note: LT - left turn, RT - right turn

The results of the unsignalized intersection analysis show that park users making left turns from the project's access roads during the study periods would experience LOS F conditions due to increased traffic flow on Queen Kaahumanu Highway.

The following intersection improvements will provide improved traffic flow:

- Signalization of the intersection of Queen Kaahumanu Highway with the existing access road.
- Fully channelized intersection with exclusive left turn lanes and acceleration and deceleration lanes.

Signalized intersection analysis was done on the intersection of Queen Kaahumanu Highway with the existing access road to determine the effect of these improvements.

Signalized intersection analysis is based on average stopped delay per vehicle to measure traffic operating conditions. The methodology for operational analysis measures traffic operations using the LOS rating, which ranges from A to F. The LOS for the traffic movements at a signalized intersection is classified into six categories ranging from less than 5 seconds of average delay per vehicle (LOS A) to over 60 seconds of average delay per vehicle (LOS F). Appendix B provides detailed descriptions of the LOS.

Table 4 shows that the intersection would operate at LOS A conditions if signalized. The analysis also assumes a four lane Queen Kaahumanu Highway by 2010 based on the Long Range Highway Plan.

*Submitted to
Signalized
Plan.*

Table 4 - Signalized Intersection Analysis - Mitigation

Intersection /Movement	LOS (delay-seconds/vehicle)	
	Weekday Afternoon Peak Hour	Weekend Mid-day Peak Hour
Queen Kaahumanu Highway with Existing Access Road		
Northbound TH on Queen Kaahumanu Hwy	A (3)	A (3)
Northbound LT from Queen Kaahumanu Hwy	A (2)	A (2)
Southbound TH on Queen Kaahumanu Hwy	A (4)	A (4)
Southbound RT from Queen Kaahumanu Hwy	A (2)	A (2)
Eastbound LT from Access Road	C (16)	C (16)
Eastbound RT from Access Road	C (16)	C (16)
Overall	A (4)	A (4)

Note: TH - Through, RT - Right turn, LT- Left turn

CONCLUSIONS AND RECOMMENDATIONS

The Kona Coast State Park project will not have a significant impact on traffic flow at the project access intersections along Queen Kaahumanu Highway.

Even without the project, drivers entering or exiting the project access roads are expected to experience long to very long delays (LOS E or F) due to the increase in traffic volumes along Queen Kaahumanu Highway. Similar traffic conditions will be experienced by existing and future intersections along Queen Kaahumanu Highway. Left turning vehicles will experience increasingly greater wait times before entering Queen Kaahumanu Highway traffic flows.

To provide greater access to the park project, the following actions might be taken:

- For the intersections along Queen Kaahumanu Highway, provide a fully channelized intersection with exclusive left turn lanes and acceleration and deceleration lanes.
 - Signalize the intersection of the Queen Kaahumanu Highway and the existing access road when warranted. If signalized, the intersection will operate at LOS A.
- For the intersection of Queen Kaahumanu Highway and the north access road, signalization may not be warranted due to the low traffic volumes on the access road.

The traffic volumes forecasted for year 2010 were based on future land uses in the island of Hawaii Long Range Highway Plan. The Plan called for

expanding Queen Kaahumanu Highway to four lanes divided, with a possibility of frontage roads and requirements for an access-controlled type facility.

Since the publication of that report in 1991, land use projections have been decreased from those identified in the Plan due to the economic situation on the Big Island as well as the rest of the State. Fewer land uses mean smaller traffic volumes on the roadways. Therefore, a four lane Queen Kaahumanu Highway may not be necessary by the year 2010 or even later. The recommended intersection improvements would still be applicable for a two lane Queen Kaahumanu Highway.

↑ only fund or
not economic

APPENDIX A

TRAFFIC COUNT DATA

Project: 13.0 Kona Coast
Date: 12/2/94

Direction NORTHBOUND SOUTHBOUND
North-South Road Queen Kaahumanu Rd. SOUTHBOUND

Start Time	NB-LT	NB-TH	NB-RT	TRUCKS	BUSES	SBLT	SB-TH	SB-RT	TRUCKS	BUSES
2:30 PM	1	100	0	6	0	0	111	0	6	0
2:45 PM	2	85	0	2	0	0	127	1	8	0
3:00 PM	1	99	0	5	0	0	97	3	4	0
3:15 PM	2	85	0	3	0	0	125	6	6	0
3:30 PM	0	92	0	4	0	0	115	0	5	0
3:45 PM	2	65	0	2	0	0	85	0	0	0
4:00 PM	3	94	0	2	0	0	130	3	3	0
4:15 PM	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0
Totals	11	620	0	0	0	0	790	13	0	0

PEAK HOUR	NB-LT	NB-TH	NB-RT	%HV	SBLT	SB-TH	SB-RT	%HV
3:00 PM	5	341	0	14	0	422	9	15
4:00 PM	TOTAL	346	%HV	4.05%	TOTAL	431	%HV	3.48%

Start Time	EB-LT	EB-TH	EB-RT	TRUCKS	BUSES	WB-LT	WB-TH	WB-RT	TRUCKS	BUSES
2:30 PM	0	0	2	0	0	0	0	0	0	0
2:45 PM	0	0	2	0	0	0	0	0	0	0
3:00 PM	0	0	3	0	0	0	0	0	0	0
3:15 PM	1	0	5	0	0	0	0	0	0	0
3:30 PM	0	0	2	0	0	0	0	0	0	0
3:45 PM	0	0	3	0	0	0	0	0	0	0
4:00 PM	0	0	4	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0
Totals	1	0	21	0	0	0	0	0	0	0

PEAK HOUR	EB-LT	EB-TH	EB-RT	%HV	WB-LT	WB-TH	WB-RT	%HV
3:00 PM	1	0	13	0	0	0	0	0
4:00 PM	TOTAL	14	%HV	0.00%	TOTAL	0	%HV	#DIV/0!

Project: 13.0 Kona Coast
Date: 12/3/94

Direction NORTHBOUND SOUTHBOUND
North-South Road Queen Kaahumanu Rd. SOUTHBOUND

Start Time	NB-LT	NB-TH	NB-RT	TRUCKS	BUSES	SBLT	SB-TH	SB-RT	TRUCKS	BUSES
11:00 AM	2	68	0	3	0	0	82	0	1	0
11:15 AM	3	79	0	4	0	0	85	0	1	0
11:30 AM	5	66	0	2	0	0	77	3	1	0
11:45 AM	2	61	0	3	0	0	92	3	0	0
12:00 PM	1	53	0	0	0	0	93	2	3	0
12:15 PM	3	74	0	1	0	0	86	2	2	0
12:30 PM	6	84	0	0	0	0	98	2	0	0
12:45 PM	3	56	0	1	0	0	92	0	2	0
1:00 PM	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0
Totals	25	521	0	0	0	0	705	12	0	0

PEAK HOUR	NB-LT	NB-TH	NB-RT	%HV	SBLT	SB-TH	SB-RT	%HV
11:30 AM	11	254	0	6	0	0	348	10
12:30 PM	TOTAL	265	%HV	2.26%	TOTAL	356	%HV	1.68%

Direction EASTBOUND WESTBOUND
East-West Road Existing Access Road WESTBOUND

Start Time	EB-LT	EB-TH	EB-RT	TRUCKS	BUSES	WB-LT	WB-TH	WB-RT	TRUCKS	BUSES
11:00 AM	0	0	6	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	0
11:30 AM	6	0	6	0	0	0	0	0	0	0
11:45 AM	4	0	4	0	0	0	0	0	0	0
12:00 PM	3	0	9	0	0	0	0	0	0	0
12:15 PM	2	0	2	0	0	0	0	0	0	0
12:30 PM	1	0	1	0	0	0	0	0	0	0
12:45 PM	0	0	1	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0
Totals	17	0	29	0	0	0	0	0	0	0

PEAK HOUR	EB-LT	EB-TH	EB-RT	%HV	WB-LT	WB-TH	WB-RT	%HV
11:30 AM	15	0	21	0	0	0	0	0
12:30 PM	TOTAL	36	%HV	0.00%	TOTAL	0	%HV	#DIV/0!

Project : 13.0 Kona Coast
Date: 12/2/94

Direction NORTHBOUND SOUTHBOUND
North-South Road Queen Kaahumanu Rd. SOUTHBOUND

Start Time	NB-LT	NB-TH	NB-RT	TRUCKS	BUSES	SB-LT	SB-TH	SB-RT	TRUCKS	BUSES
2:30 PM	0							1		
2:45 PM	0							0		
3:00 PM	0							0		
3:15 PM	0							0		
3:30 PM	0							0		
3:45 PM	0							0		
4:00 PM	0							0		
4:15 PM	0							0		
4:30 PM	0							0		
4:45 PM	0							0		
5:00 PM	0							0		
Totals	0	0	0	0	0	0	0	0	0	1

PEAK HOUR	NB-LT	NB-TH	NB-RT	TRUCKS	BUSES	SB-LT	SB-TH	SB-RT	TRUCKS	BUSES
3:00 PM	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0
				%HV	#DIV/0!				%HV	#DIV/0!
				TOTAL	0	0	0	0	TOTAL	0

Start Time	Direction EASTBOUND			Direction WESTBOUND		
	EB-LT	EB-TH	EB-RT	WB-LT	WB-TH	WB-RT
2:30 PM	0		1			
2:45 PM	0		0			
3:00 PM	0		0			
3:15 PM	0		0			
3:30 PM	0		0			
3:45 PM	0		0			
4:00 PM	0		0			
4:15 PM	0		0			
4:30 PM	0		0			
4:45 PM	0		0			
5:00 PM	0		0			
Totals	0	0	1	0	0	0

PEAK HOUR	EB-LT	EB-TH	EB-RT	WB-LT	WB-TH	WB-RT
3:00 PM	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0
				%HV	#DIV/0!	%HV
				TOTAL	0	#DIV/0!

Project : 13.0 Kona Coast
Date: 12/3/94

Direction NORTHBOUND SOUTHBOUND
North-South Road Queen Kaahumanu Rd. SOUTHBOUND

Start Time	NB-LT	NB-TH	NB-RT	TRUCKS	BUSES	SB-LT	SB-TH	SB-RT	TRUCKS	BUSES
11:00 AM	3							0		
11:15 AM	1							0		
11:30 AM	0							1		
11:45 AM	1							0		
12:00 PM	0							0		
12:15 PM	0							0		
12:30 PM	0							0		
12:45 PM	3							0		
1:00 PM	0							0		
1:15 PM	0							0		
1:30 PM	0							0		
Totals	8	0	0	0	0	0	0	0	0	1

PEAK HOUR	NB-LT	NB-TH	NB-RT	TRUCKS	BUSES	SB-LT	SB-TH	SB-RT	TRUCKS	BUSES
11:30 AM	1	0	0	0	0	0	0	1	0	0
12:30 PM	1	0	0	0	0	0	0	1	0	0
TOTAL	2	0	0	0	0	0	0	2	0	0
				%HV	0.00%				%HV	0.00%

Start Time	Direction EASTBOUND			Direction WESTBOUND		
	EB-LT	EB-TH	EB-RT	WB-LT	WB-TH	WB-RT
11:00 AM	0		1			
11:15 AM	0		1			
11:30 AM	0		0			
11:45 AM	0		0			
12:00 PM	0		1			
12:15 PM	0		0			
12:30 PM	0		0			
12:45 PM	0		0			
1:00 PM	0		0			
1:15 PM	0		0			
1:30 PM	0		0			
Totals	0	0	3	0	0	0

PEAK HOUR	EB-LT	EB-TH	EB-RT	WB-LT	WB-TH	WB-RT
11:30 AM	0	0	1	0	0	0
12:30 PM	0	0	0	0	0	0
TOTAL	0	0	1	0	0	0
				%HV	0.00%	%HV
				TOTAL	0	#DIV/0!

LEVEL-OF-SERVICE FOR SIGNALIZED INTERSECTIONS

Level-of-service for signalized intersections is defined in terms of delay. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Specifically, level-of-service criteria are stated in terms of the average stopped delay per vehicle for a 15-minute analysis period. The table to the right gives the Level-of-Service criteria.

Level of Service	Stopped Delay Per Vehicle (sec/veh)
A	≤ 5
B	> 5 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 40
E	< 40 and ≤ 60
F	> 60

Level-of-service A describes operations with very low delay up to 5.0 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level-of-service B describes operations with delay in the range of 5.1 to 15.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths or both. More vehicles stop than for LOS A, causing higher levels of average delay.

Level-of-service C describes operations with delay in the range of 15.1 to 25.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

Level-of-service D describes operations with delay in the range of 25.1 to 40.0 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or a high v/c ratios (volume of cars to capacity of intersection). Individual cycle failures are noticeable.

Level-of-service E describes operations with delay in the range of 40.1 to 60.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

Level-of-service F describes operations with delay in excess of 60.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed

APPENDIX B

LEVEL-OF-SERVICE DEFINITIONS

FOR

SIGNALIZED AND UNSIGNALIZED INTERSECTIONS¹

¹REFERENCE: Highway Capacity Manual (Special Report 209, 1994)

the capacity of the intersection. It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

LEVEL-OF-SERVICE FOR UNSIGNALIZED INTERSECTIONS

The level of service criteria are given in the table to the right. As used here, total delay is defined as the total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position.

Level of Service	Average Total Delay (sec/veh)
A	≤ 5
B	> 5 and ≤ 10
C	> 10 and ≤ 20
D	> 20 and ≤ 30
E	< 30 and ≤ 45
F	> 45

The proposed level of service criteria are somewhat different from the criteria for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection.

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Appendix G

Traffic Impact Analysis - Maniniowali

TRAFFIC IMPACT ANALYSIS

**MANIOWALI DEVELOPMENT
Kona, Hawaii**

March 2002

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TRAFFIC IMPACT ANALYSIS

**Maniowali Development
KONA, HAWAII**

March 2002

**PB PARSONS
E. BRINCKERHOFF**

Over a Century of Engineering Excellence

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I. INTRODUCTION

W.B. Maniniowali, LLC has acquired the former Maniniowali parcel located near Kaupulehu, Hawaii on the Kona coast of the island of Hawaii, north of the Kona International Airport. A total of 140 resort residential units are planned for the parcel. Previously, 1,000 recreational residential units and an 18-hole golf course were proposed for the site. This reflects an 86 percent decrease in development intensity for the residential component alone. Figure 1 illustrates the location of the site and Figure 2 illustrates the current conceptual site plan for the development.

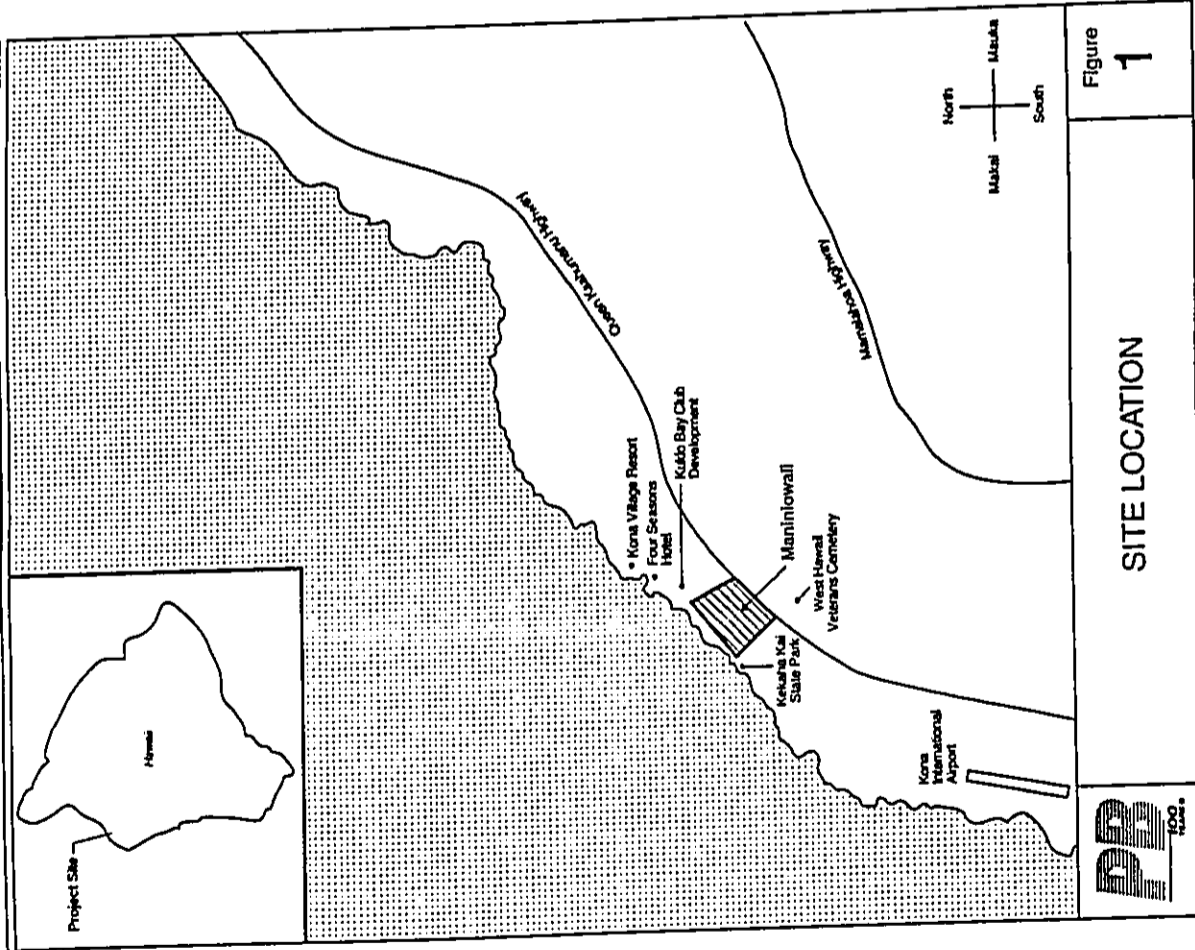
Queen Kaahumanu Highway, administered by the State of Hawaii Department of Transportation (SDOT), will provide regional roadway access to the proposed development. Three access scenarios to Queen Kaahumanu Highway from Maniniowali are possible, depending on the pace of the development of the Maniniowali parcel:

1. Share access on Queen Kaahumanu Highway at the currently approved access road for Kukio Resort;
2. Share access on Queen Kaahumanu Highway at a future access road for the Kekaha Kai State Park located opposite the existing West Hawaii Veterans' Cemetery Access Road;
3. Use a combination of the Kukio Resort and Kekaha Kai State Park access roads.

It is proposed that during its early development phases, the Maniniowali project would share access with the Kukio Resort. As Maniniowali develops, it would construct a secondary access on Queen Kaahumanu at the future Kekaha Kai State Park access.

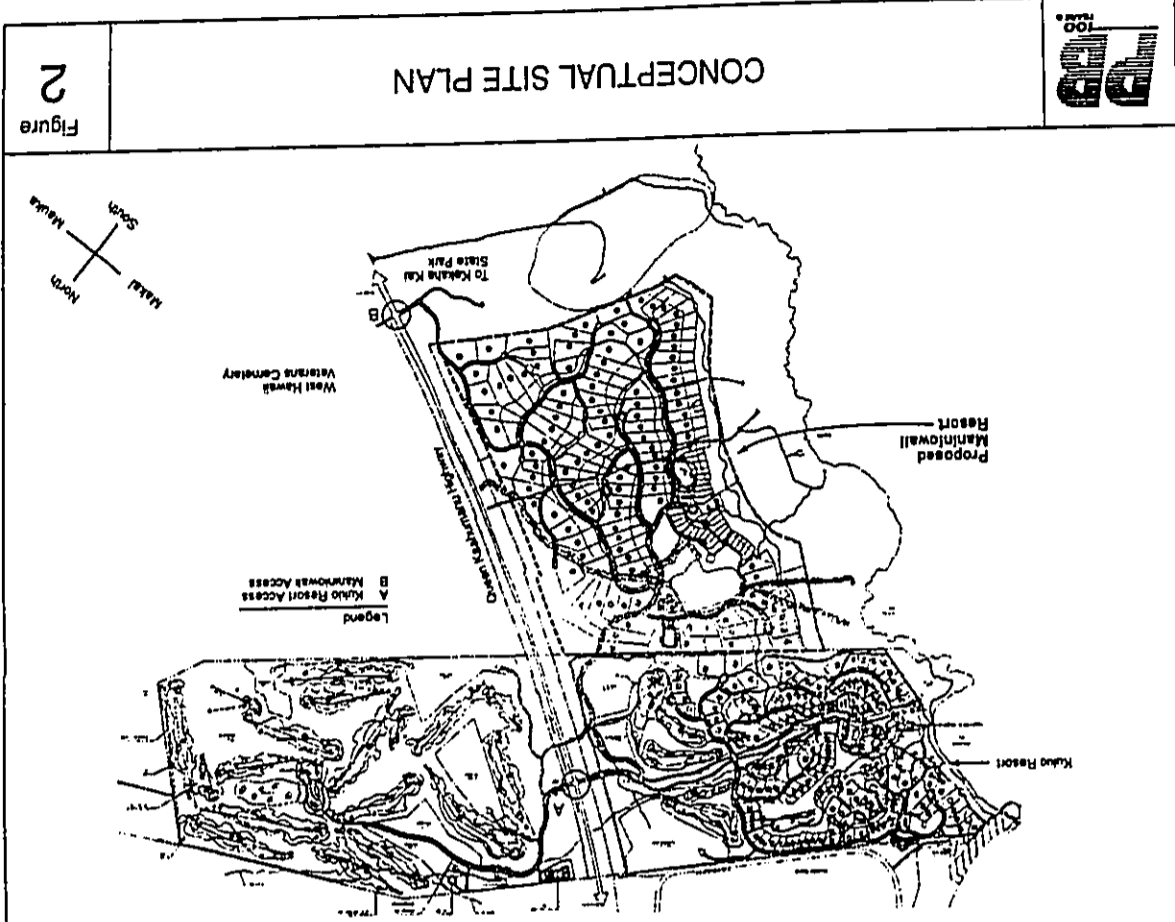
This report evaluates the two worst case conditions: one with all of Maniniowali utilizing a shared access at the Kukio Resort access and another with all of Maniniowali utilizing a shared access at the future Kekaha Kai State Park access located across the West Hawaii Veterans' Cemetery Access Road. The condition in which Maniniowali would use both Kukio and Kekaha Kai accesses is judged to function better than either single-access scenario, so it was not analyzed.

This report documents the study assumptions and methodology and summarizes the findings, recommendations, and conclusions of the traffic impact analysis for the Maniniowali development.



SITE LOCATION

Figure 1



CONCEPTUAL SITE PLAN

Figure 2

II. EXISTING CONDITIONS

A. EXISTING LAND USE

The southern boundary of the proposed Maniowali development is located approximately 5 miles north of the Kona International Airport driveway and 1 mile south of the future Kukio access road.

Further to the south of Kona International Airport are the Palisades residential development, Kaloko Industrial Park, Honokohau Small Boat Harbor, and Kailua Town.

Immediately north of the proposed Maniowali development is the Kukio Resort development currently under development. Further to the north is the existing Kaupulehu resort area, which includes the Four Seasons Resort and the Kona Village Resort. The Kona Village Resort has been in existence for years, while the more recent Four Seasons Resort is in the process of implementing its development plan. The hotel and golf course are complete as is a significant portion of its Villa units.

Much further to the north are the existing resort developments of Waikoloa, Mauna Lani, Hapuna Prince, and Mauna Kea Beach.

B. EXISTING ROADWAY SYSTEM

Queen Kaahumanu Highway (State Highway 19) provides both regional mobility and access to coastal development in this area. It is a two-lane, principal arterial roadway that is generally aligned in the north-south direction. The posted speed limit is 55 mph. Typical roadway cross-section is two 12-foot lanes with paved shoulders.

Queen Kaahumanu Highway is usually widened where there are at-grade intersections to provide exclusive left-turn lanes and deceleration and acceleration for right-turning movements.

C. EXISTING TRAFFIC CONDITIONS

Manual turning movement traffic counts were conducted during the morning and afternoon peak hours on Wednesday, August 1, 2001 at the intersection of Queen Kaahumanu Highway and Kaupulehu Drive (Entrance to Kaupulehu resort area).

These traffic volume counts were augmented with 24-hour traffic volume counts conducted by the State of Hawaii Department of Transportation (SDOT) at the Kona International Airport Access Road/Queen Kaahumanu Highway intersection (Station 8-P) during May 2000.

The existing traffic volumes are shown in Figure 3, and the traffic data are included in Appendix A of this report. These traffic count data indicate mixed trends with an annual growth of about 3 percent in daily traffic volume and no growth in most of the peak time periods. The AM peak hour showed about 6 percent annual growth, primarily due to the increases in the southbound direction traffic.

The manually counted 2001 traffic data was consistent with the SDOT-counted 2000 traffic data. The AM commuter peak hour was found to occur between 7:00 AM and 8:00 AM at SDOT Station 8-P (Kona International Airport Access-Movements 1 and 5) and between 6:30 AM and 7:30 AM at the Kaupulehu Drive intersection. The total AM commuter peak hour volume in both directions based on the 2001 manual count is 803 vehicles per hour (vph) versus 925 vph at count station 8-P with 55 to 60 percent of the traffic oriented in the northbound direction. The PM commuter peak hour occurs between 3:30 PM and 4:30 PM at a total volume of 1,134 vph at the Kaupulehu Drive intersection versus between 3:15 PM and 4:15 PM at a total volume of 1,098 vph at count station 8-P with 60 to 65 percent of the traffic oriented in the southbound direction. The Maniowali and Kukio Resort are visitor-oriented developments, expected to generate their peak morning traffic during the mid-morning time period. This mid-morning peak was assumed to occur between 9:15 AM and 10:15 AM. The traffic volume during this peak was 802 vph and was split 50 percent in each direction. This volume along with the PM commuter peak hour was used to evaluate the Maniowali Development. Because there is a desire to monitor these volumes over time, it was decided to utilize the count station 8-P volumes in the traffic analyses. That

way, a consistent source of traffic data could be used to evaluate interim points in the Maniowai Development.

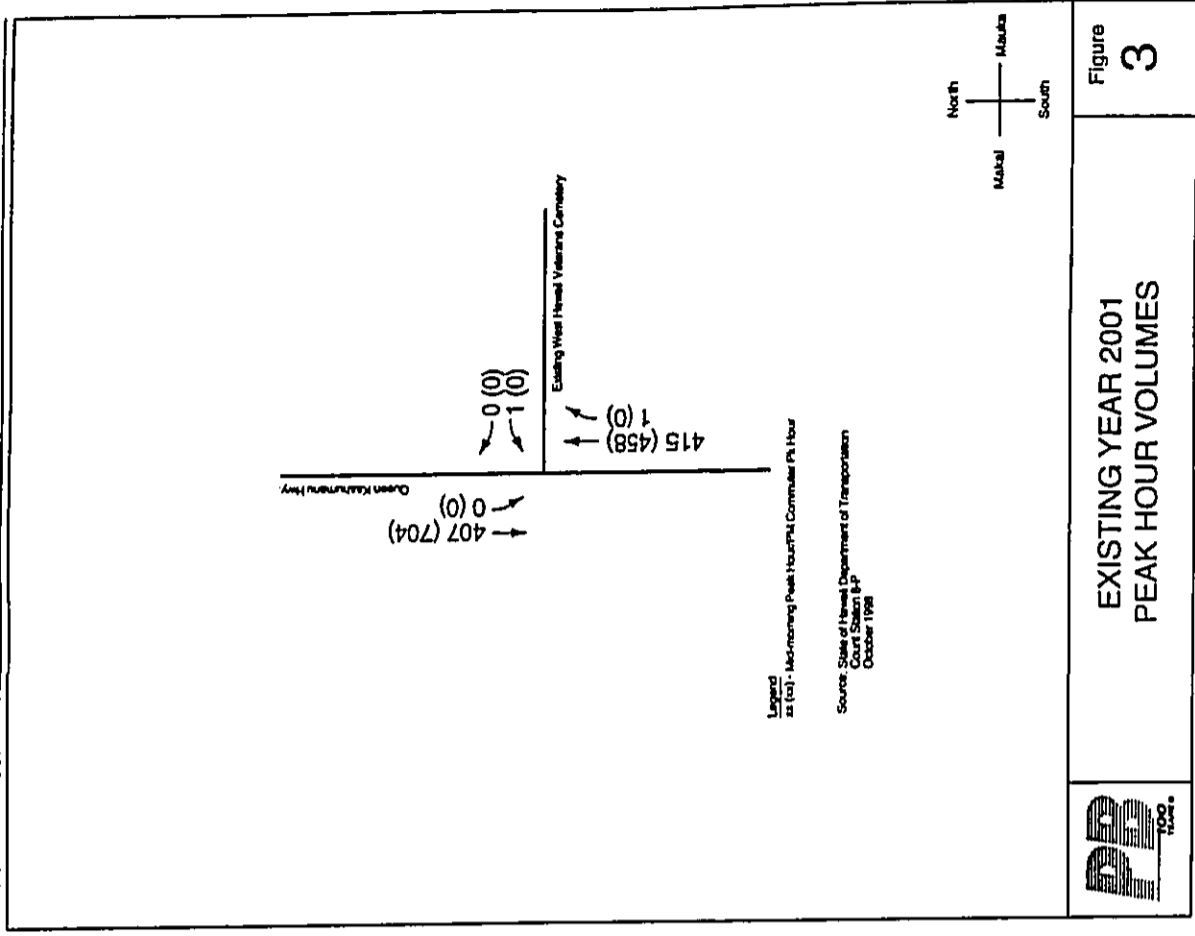
Intersection level of service (LOS) was evaluated at the existing West Hawaii Veterans Cemetery (WHVC) access road for the mid-AM peak hour and the PM peak hour. The West Hawaii Veterans Cemetery is gated and only open between the hours of 8:00 AM to 12:00 PM, Monday through Friday. Therefore, no traffic movements associated with the cemetery occur during the AM peak hour. Observations by Parsons Brinckerhoff staff only detected 2 vehicles on August 1, 2001 using the cemetery access during the mid-morning peak hour. One executed a right turn into the site from northbound Queen Kaahumanu Highway and the other executed a left turn from the access road to southbound Queen Kaahumanu Highway. Two different vehicles executed these movements. No vehicles were observed turning into or out of the cemetery during the PM commuter peak hour.

The unsignalized intersection method documented in the 2000 Highway Capacity Manual was used to evaluate this intersection. The analysis identifies LOS for key turning movements based on predicted delay in seconds per vehicle. Table 1 summarizes the results of this analysis. As shown, the intersection is currently operating with very little delay, primarily due to low traffic demand on the access road. LOS is represented by a letter designation ranging from A to F. LOS A represents free-flow operating conditions, while LOS F represents congested conditions. More detailed Level-of-Service definitions are included in Appendix B. The traffic analysis worksheets for Queen Kaahumanu Highway can be found in Appendix C.

Table 1
Existing 2001 Peak Hour Intersection Level of Service
West Hawaii Veterans Cemetery Access Road/
Queen Kaahumanu Highway Intersection

Traffic Movement	Peak Hour Level of Service	
	Mid-AM Peak Hour	PM Peak Hour
SB Queen Kaahumanu LT	A	A
WB WHVC LT/Through	C	C
WB WHVC RT	B	B

Note: SB=southbound, WB=westbound, LT=left turn, RT=right turn
 WHVC=West Hawaii Veterans Cemetery



III. FUTURE TRAFFIC CONDITIONS

The Maniowali development is expected to build out over an extended period of time depending mainly on market response. Current estimates are that the development will be complete by the year 2010. The Year 2010 was, therefore, selected as the study year for the purposes of this traffic impact analysis study. Traffic generated by the proposed development was based on the forecasting methodology of trip generation, trip distribution, and trip assignment. Background traffic not associated with the proposed Maniowali development was also forecasted for this year and includes the traffic generated by the approved future Kukio Resort development and the Kekaha Kai State Park.

A. TRIP GENERATION

Trip generation rates documented in the Institute of Transportation Engineers (ITE) publication, Trip Generation, Sixth Edition, were used to estimate the traffic volumes generated by Maniowali development. For the resort residential development, the Recreational Homes (Category 260) was used. These rates are used for homes located in a resort containing local services and recreational facilities. They are often second homes used by the owner periodically or rented on a seasonal basis. The peak hour of generator rates were used. Traffic estimated by these rates were assumed occur during the mid-morning peak hour and the PM commuter peak hour on Queen Kaahumanu Highway. Table 2 summarizes the estimated number of vehicular trips generated by the Maniowali development in the Year 2010.

Table 2
Maniowali Trip Generation Summary

Land Use	Intensity	Mid-Morning Peak		PM Commuter Peak	
		Enter	Exit	Enter	Exit
Resort Residential	140 du	21	21	19	24

Source: Institute of Transportation Engineers (ITE) Trip Generation, Sixth Edition, Category 260
Volumes are vehicles per hour (vph), du=dwelling units

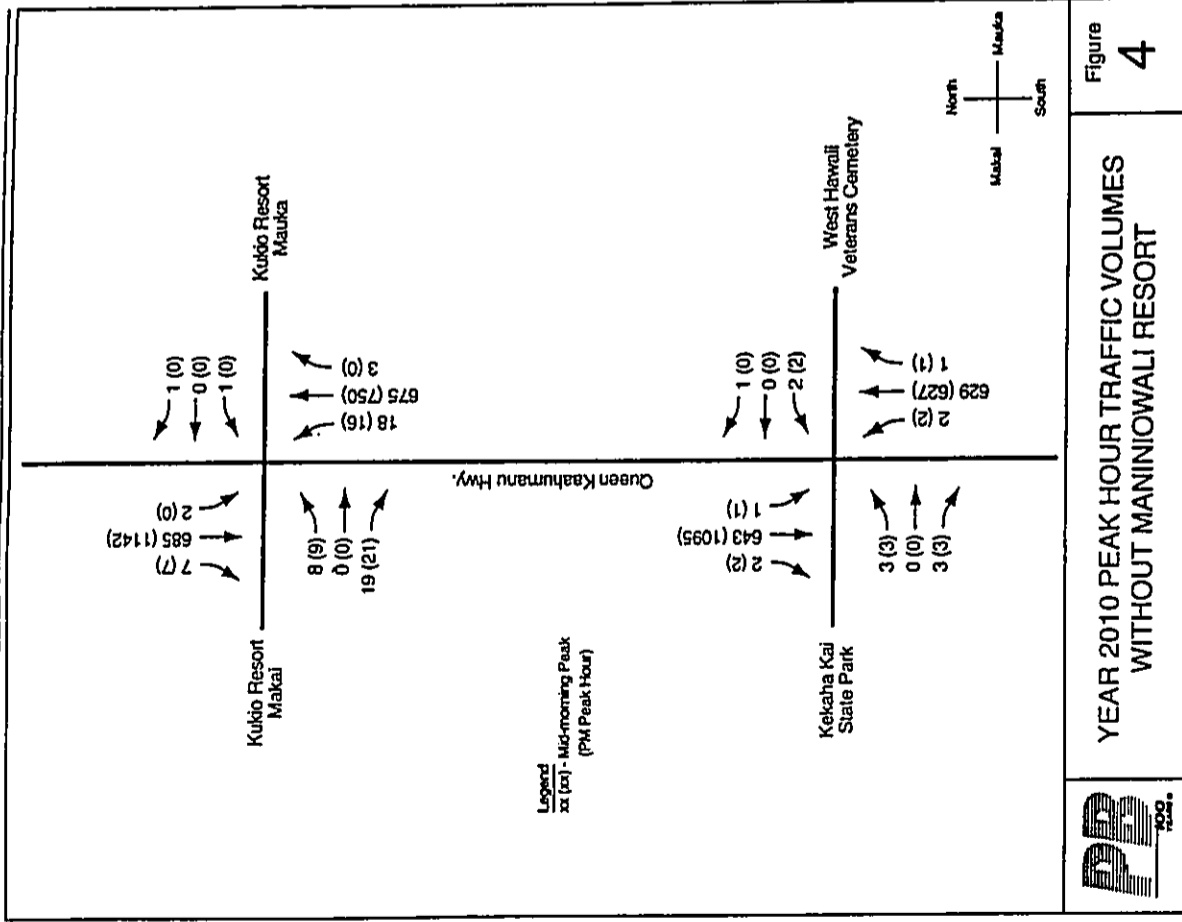
B. TRIP DISTRIBUTION AND ASSIGNMENT

The traffic generated by the proposed Maniowali development was directionally distributed based on the existing directional distribution of traffic at the Kaupulehu Drive/Queen Kaahumanu Highway intersection. The directional trip distribution factors assumed for this project were 75 percent to and from the south and 25 percent to and from the north.

Traffic generated by Maniowali was then assigned according to the directional distribution described previously to either the Kukio Resort/Queen Kaahumanu Highway intersection or the West Hawaii Veterans' Cemetery/Queen Kaahumanu Highway intersection, depending on the access alternative.

C. YEAR 2000 BACKGROUND TRAFFIC

The Year 2010 background traffic volumes were estimated for Queen Kaahumanu Highway in the vicinity of the proposed Maniowali site by factoring existing traffic by an annual growth rate of 4.0 percent, which is consistent with the average growth rate indicated for this corridor in the Hawaii Long-Range Land Transportation Plan, Draft Final Report, January 1998. At the Kukio Resort Access Road/Queen Kaahumanu Highway intersection, peak hour traffic volumes as documented in the Traffic Impact Analysis Report, Kukio Bay Beach Club, April 2000 were assumed. Additionally, at the West Hawaii Veterans' Cemetery Access Road/Queen Kaahumanu Highway intersection, it was assumed that the Kekaha Kai State Park would generate approximately 2 vehicles trips during AM peak hour and 10 vehicle trips each during the mid-morning and PM peak hours. The directional distribution was assumed to be 50%/50% entering/exiting during the AM peak hour and 40%/60% entering/exiting during the mid-morning and PM peak hour. West Hawaii Veterans Cemetery traffic was also included in the background traffic. The magnitudes of traffic were 0 vehicles per hour (vph) during the AM peak hour and 5 vph during the mid-morning and PM commuter peak hours. The mid-morning and PM commuter peak hour traffic from the West Hawaii Veterans' Cemetery was assumed to be distributed 50%/50% entering/exiting. Directional distribution for both the Kekaha Kai State Park and the West Hawaii Veterans Cemetery were assumed to be 50 percent north and 50 percent south. These volumes are summarized in Figure 4.



D. TOTAL TRAFFIC

The assigned traffic generated by Maniowali development was added to the background traffic to obtain the total Year 2010 traffic volumes. Figures 5 and 6 present the Year 2010 assigned peak hour turning movement volumes for the Kukio Access and the West Hawaii Veterans' Cemetery Access alternatives, respectively.

E. TRAFFIC OPERATIONS ANALYSIS RESULTS

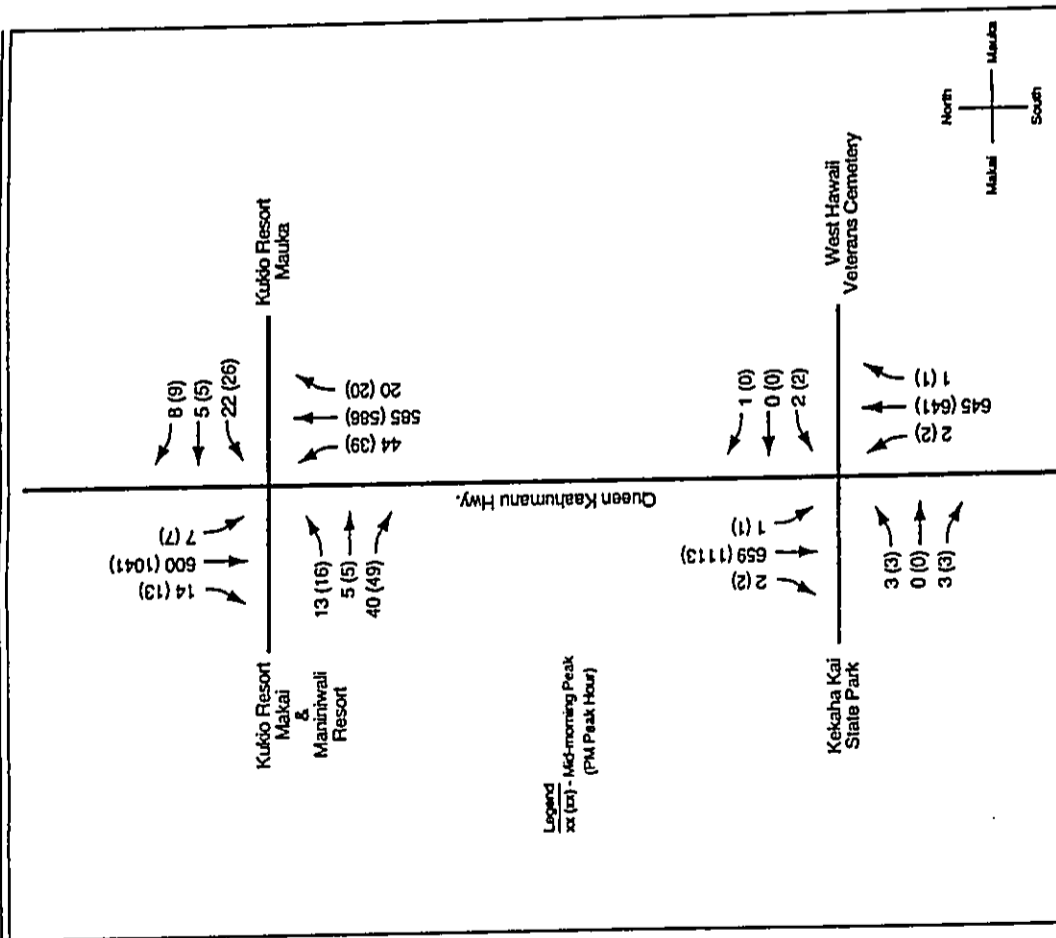
Intersection capacity analyses were conducted without the proposed Maniowali Development and with the Maniowali Development for the two access alternatives. The intersection was evaluated using the unsignalized intersection method documented in the 2000 Highway Capacity Manual.

1. Intersection Configurations

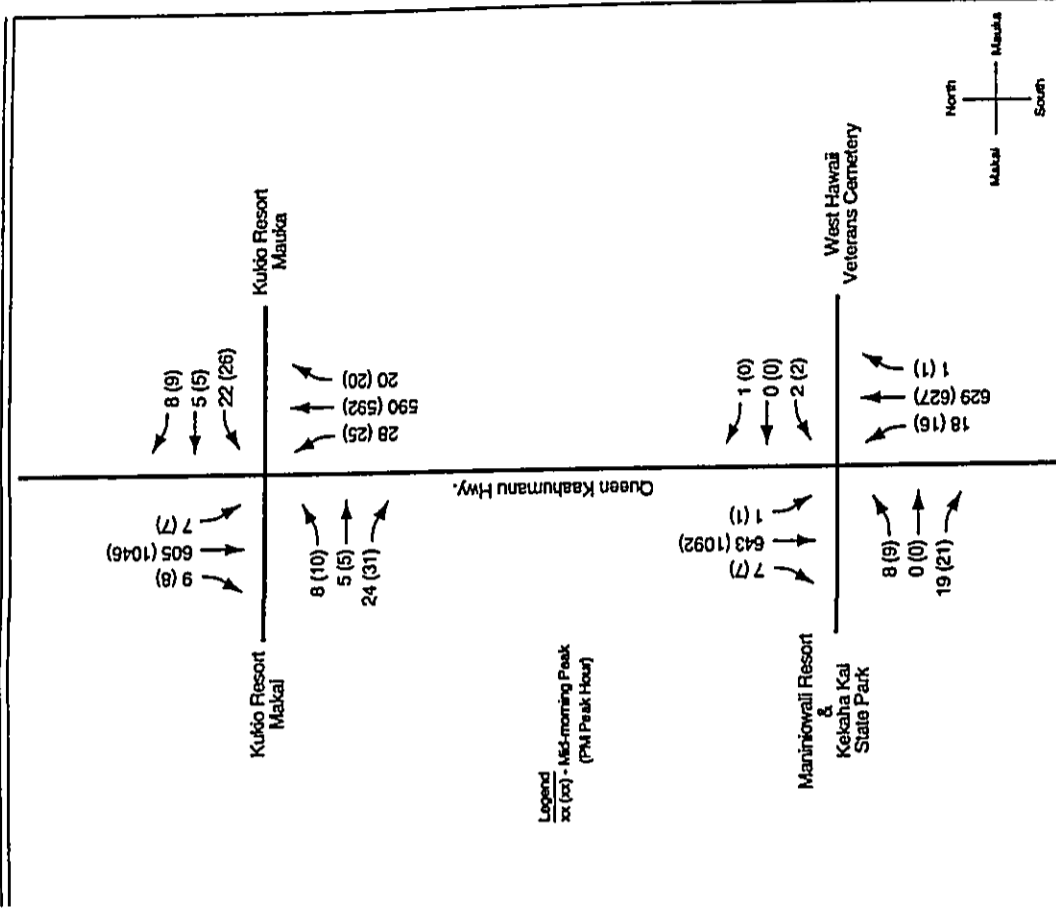
Queen Kaahumanu Highway was assumed to be a two-lane highway for the purposes of the intersection analyses. Both the Kukio and West Hawaii Veterans' Cemetery (WHVC) intersection analyses were conducted under this assumption.

The Kukio Resort intersection was assumed to be configured as recommended in the Traffic Impact Assessment Report, Kukio Bay Beach Club, April 2000. This intersection would be fully channelized and would provide median left-turn lanes and refuge areas for vehicles turning into and out of Kukio Resort. Right-turn deceleration and acceleration lanes would be provided as well.

A new intersection leg opposite existing West Hawaii Veterans Cemetery (WHVC) driveway was assumed at the WHVC intersection. The purpose of this new leg would be to provide access to the existing Kekaha Kai State Park. The existing intersection is assumed to be channelized with separate left and right-turn lanes and median refuge for vehicles turning left out of the minor street. The median refuge areas allow left-turning vehicles to clear one direction of traffic on Queen Kaahumanu Highway first, and then merge into the other direction traffic lanes.



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2. **Intersection Operations Results**

Table 3 summarizes the projected Year 2010 intersection level of service (LOS). LOS for specific vehicular movements at this intersection are shown in addition to the overall intersection LOS. LOS is a qualitative index of intersection operation based on qualitative analyses of delay. More detailed definitions of LOS are included in Appendix B, and the intersection capacity analysis worksheets are included in Appendix C of this report.

Table 3
Projected Year 2010 Peak Hour Intersection Level of Service

Traffic Movement	Without Maniowali		Alternative 1 Use Kukio Resort Access		Alternative 2 Use WHVC Access	
	AM	PM	AM	PM	AM	PM
	Queen Kaahumanu Highway/Kukio Resort Access Road					
NB Queen Kaahumanu LT	A (9.0)	B (11.2)	A (9.1)	B (11.4)	A (9.0)	B (11.2)
SB Queen Kaahumanu LT	A (8.9)	A (8.9)	A (8.9)	A (8.9)	A (8.9)	A (8.9)
EB Kukio LT/Through	C (16.5)	D (30.9)	C (17.7)	D (35.0)	C (16.7)	D (31.3)
EB Kukio RT	B (13.2)	C (22.3)	B (13.6)	C (24.1)	B (13.3)	C (22.5)
WB Kukio LT/Through	C (16.9)	C (16.8)	C (17.7)	C (17.6)	C (17.0)	C (17.0)
WB Kukio RT	B (12.7)	B (12.8)	B (12.7)	B (12.8)	B (12.8)	B (12.9)
Queen Kaahumanu Highway/West Hawaii Veterans' Cemetery Access Road						
NB Queen Kaahumanu LT	A (9.1)	B (11.2)	A (9.1)	B (11.3)	A (9.1)	B (11.4)
SB Queen Kaahumanu LT	A (9.0)	A (9.0)	A (9.0)	A (9.0)	A (9.0)	A (9.0)
EB WHVC LT/Through	C (15.8)	D (28.4)	C (15.8)	D (29.0)	C (16.5)	D (31.1)
EB WHVC RT	B (13.6)	C (21.4)	B (13.6)	C (21.8)	B (13.7)	C (23.0)
WB WHVC LT/Through	C (15.3)	C (15.2)	C (15.5)	C (15.5)	C (15.9)	C (15.8)
WB WHVC RT	B (13.1)	B (13.1)	B (13.3)	B (13.3)	B (13.1)	B (13.1)

Note: All-mid morning AM peak hour. PM-PM commuter peak hour. LT=Left Turn, RT=Right Turn
WHVC = West Hawaii Veterans' Cemetery
Results are provided as Level of Service and delay (seconds/vehicle)

As shown in Table 3, all traffic movements at this intersection operate at LOS considered acceptable for peak hour conditions. A key reason for this is the provision of median refuge for vehicles turning out of both the Kukio Resort and the West Hawaii Veterans Cemetery (WHVC)/Maniowali Access Roads. This enables drivers to complete the left-turn out of the cross street to the main line roadway in two steps, a much easier maneuver

than negotiating both northbound and southbound Queen Kaahumanu Highway traffic simultaneously.

The Maniowali Development would increase delay slightly at for movements at both the Kukio and WHVC accesses for both access alternatives. As expected, delay is increased more at the Kukio Resort access for the alternative using the Kukio Resort access while delay is increased more at the WHVC access for the alternative using the WHVC access. Both alternatives do not change the letter level of service for any of the analyzed movements.

This analysis indicates that under the assumed background traffic conditions, all of the proposed Maniowali Development could be accommodated at either the Kukio Resort access or the WHVC access.

3. **Pedestrian and Bicycle Impacts**

Queen Kaahumanu Highway is currently configured with two 12-foot travel lanes and paved shoulders. Pedestrians and bicyclists utilize the paved shoulders when traveling in this corridor. The current volume of pedestrians is very small, while bicycle traffic is also low in volume. Around the time of special events such as the Iron Man Triathlon, pedestrian and bicycle activity may increase slightly, but both modes still represent relatively small volumes.

The proposed development does not physically interfere with the existing facilities, since it uses existing intersections. The additional intersection leg on the makai side of the WHVC intersection would create a new conflict point, but the small traffic volumes associated with even the alternative that focuses all of Maniowali at the WHVC intersection is not likely to impact pedestrians or bicyclists. Of course, any intersection modifications would incorporate features to accommodate pedestrians and bicyclists.

IV. SUMMARY AND RECOMMENDATIONS

A. SUMMARY

The currently proposed Maniniowai development plan significantly reduces projected site-generated vehicular traffic when compared to the previous-proposed Maniniowai development. The current proposal calls for 138 resort residential units, an 85 percent decrease from the 1,000 resort residential units with 18-hole golf course previously proposed. This results in a change in trip generation from 525 vehicles per hour (vph) to 42 vph during the AM peak hour and 724 vph to 43 vph during the PM peak hour.

The intersection analyses found that with a 4 percent annual growth assumed between existing and Year 2010 background traffic volumes on Queen Kaahumanu Highway and the projected traffic from Maniniowai, Kukio Resort, Kekaha Kai State Park, and the existing West Hawaii Veterans Cemetery (WHVC), Maniniowai traffic could be completely accommodated at either the Kukio Resort or the WHVC driveway. Either intersection is projected to operate acceptably as an unsignalized intersection with STOP-sign control on the cross-street intersecting Queen Kaahumanu Highway.

It is the intent of the developer to utilize the Kukio Resort driveway initially. Later, the WHVC intersection would be modified to add a makai leg, which would serve the Kekaha Kai State Park and provide secondary access to Maniniowai.

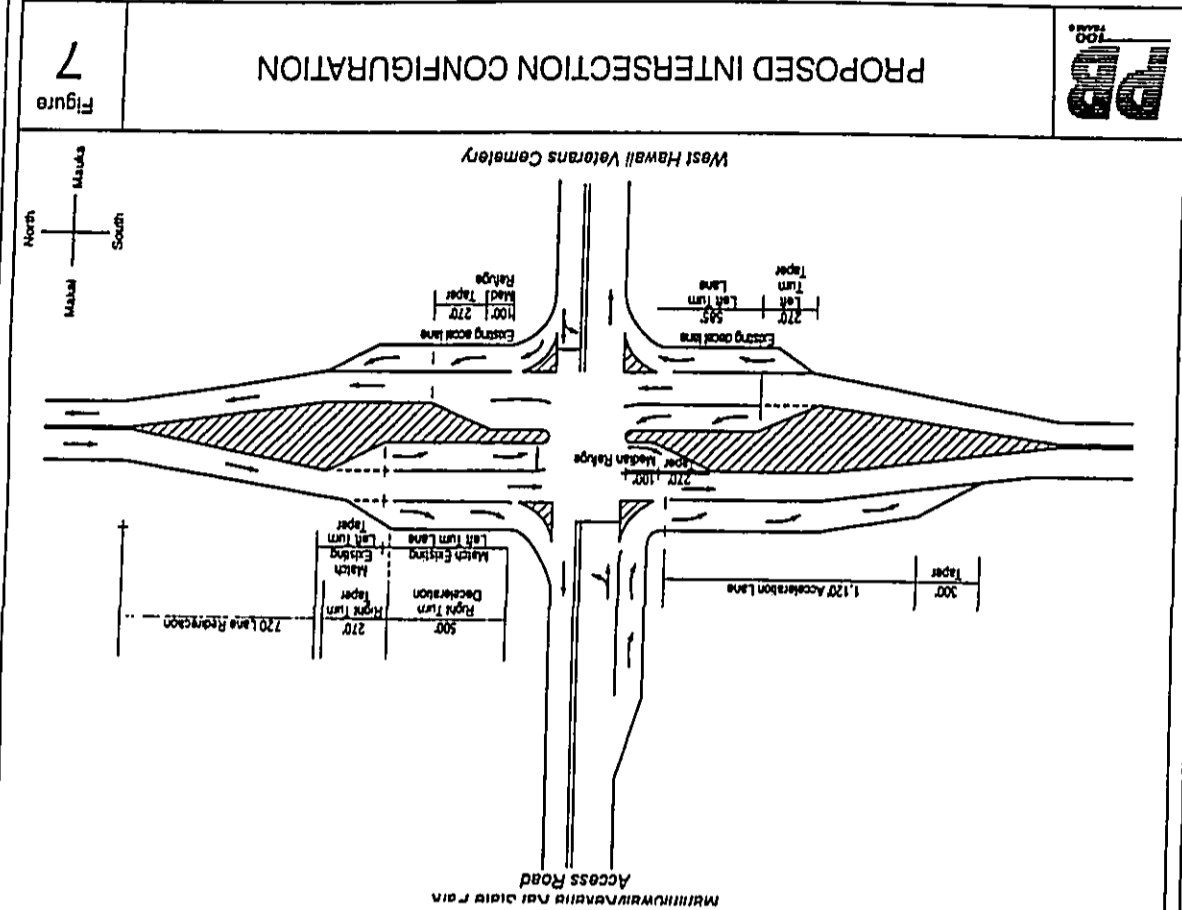
B. RECOMMENDED CONCEPTUAL INTERSECTION CONFIGURATIONS

1. Kukio Resort Driveway Intersection

A design for the Kukio Resort driveway intersection on Queen Kaahumanu Highway has been completed and approved by the State of Hawaii Department of Transportation. No changes to this design are proposed.

2. West Hawaii Veterans Cemetery Intersection

When the existing WHVC intersection is modified to create an existing makai leg the conceptual sketch shown in Figure 7 is recommended.



Queen Kaahumanu Highway is currently a two-lane, undivided arterial roadway in the vicinity of the proposed West Hawaii Veterans Cemetery access intersection. The existing painted median provides a left-turn lane and median refuge for the West Hawaii Veterans Cemetery. Deceleration and acceleration lanes for right turns are also provided. The existing right-turn deceleration and acceleration lanes would be maintained, and the median left-turn lane and median storage would be modified so that left-turn lanes and median refuge could be provided for a makai leg as well, consistent with SDOT guidelines. Right-turn deceleration lane and acceleration lanes would also be provided for traffic turning into and out of the new makai leg of the intersection.

To accomplish this, the existing painted median on Queen Kaahumanu Highway is proposed to be widened to 30 feet. Included in this median would be left-turn lanes in both north and southbound directions, a 6-foot separator, and median refuge areas for vehicles turning left out of the West Hawaii Veterans Cemetery (WHVC) and the Kekaha Kai State Park Accesses. As in the case of the existing median refuge, added median refuge is not an acceleration lane, but would allow vehicles turning left out of the makai approach to execute a left-turn movement in two steps: first from the access road to the median and second, from the median into the flow of traffic on Queen Kaahumanu Highway. This allows drivers to concentrate on one direction of Queen Kaahumanu Highway traffic at a time, thereby making the left-turn movement easier and increasing the safety of the turn movement.

The makai approach to Queen Kaahumanu Highway is recommended to have separate right-turn and left/through lanes. It is also recommended to have two lanes departing the intersection on the makai leg for approximately 300 feet, dropping the second lane at the future Maniowai secondary access road.

Intersection control would be STOP-sign control on the West Hawaii Veterans Cemetery and makai leg approaches.

Provisions should be made to conduct bicycles traveling on Queen Kaahumanu Highway through the intersection. This includes providing striping to accommodate bicycle traffic along the acceleration and deceleration lanes and along the approaches to Queen Kaahumanu Highway.

If landscaping is implemented at this intersection, it should not compromise intersection sight distance. The State of Hawaii Department of Transportation also recommends that this landscaping be xerophilous.

The developer of the Maniowai development will implement intersection improvements at this location when the Kekaha Kai State Park is developed (by others).

C. TRAFFIC MONITORING PROGRAM

The revised land use proposed for the Maniowai development is a significant reduction in density from its originally approved land use. Traffic conditions have been forecasted for the future conditions at build out of the Maniowai Development, and it was found that within a Year 2010 time frame, the Maniowai Development traffic could be accommodated at either the Kukio Resort access or the West Hawaii Veterans' Cemetery driveway with unsignalized intersection control.

Based on discussions with the State of Hawaii Department of Transportation Traffic Branch, it is proposed that an update traffic evaluation would be conducted after half of the Maniowai Development is implemented. This update would be used to satisfy the traffic-monitoring condition of approval. The analysis would determine when and if access to the West Hawaii Veterans' Cemetery (WHVC) driveway is needed and if traffic signalization is needed. This monitoring of traffic conditions would be the responsibility of the Maniowai developer. If the monitoring indicates the need for a traffic signal system, the developer will install it at no cost to the State of Hawaii.

APPENDIX

V. CONCLUSION

The previously approved Maniowali development was projected to generate a total of 525 vehicles per hour (vph) during the AM peak hour and 724 vph during the PM peak hour. The currently proposed Maniowali development is projected to generate 42 vph during the AM peak hour and 43 vph during the PM peak hour. Maniowali is projected to generate less than a tenth of the previously approved development.

Using these land use assumptions, the analyses documented in this report support a conclusion that the traffic generated by the proposed Maniowali development can be accommodated by the surrounding roadway system. It is also concluded that either the Kukio Resort or West Hawaii Veterans' Cemetery (WHVC) unsignalized intersection could adequately handle the projected traffic demand from the proposed development within the Year 2010 analysis horizon. It is expected that the Maniowali Development would initially utilize the Kukio Resort access. A traffic-monitoring plan is proposed that would review traffic conditions at this intersection after half of the Maniowali Development has been implemented. The results of the traffic monitoring would be used to determine the need for connection to the WHVC intersection or signalization of either the Kukio Resort or WHVC intersections.

1001 Bishop Street Suite 3000
 Honolulu, HI 96813

Parsons Brinckerhoff Quade and Douglas
 Site Code : 00000000
 Start Date : 08/01/01
 File I.D. : MAHINIHAM
 Page : 1

Start Time	QUEEN KAAHUMANU Southbound			KAUPULEHU Westbound			Movement 1 QUEEN KAAHUMANU Northbound			KAUPULEHU Eastbound		
	Rght	Thru	Left	Rght	Thru	Left	Rght	Thru	Left	Rght	Thru	Left
Total	39	63	0	0	0	0	1	78	84	2	0	1
8:30												
270												
8:45	34	76	0	0	0	0	0	55	60	10	0	1
236												
Total	73	141	0	0	0	0	1	133	144	12	0	2
504												
7:00am	14	72	0	1	0	0	0	67	35	15	1	8
213												
7:15	11	70	2	0	1	1	0	69	40	5	1	5
205												
7:30	13	76	0	0	1	0	3	92	58	16	0	3
262												
7:45	10	63	0	0	0	0	0	64	39	11	0	10
199												
Hour Total	48	283	2	1	2	1	3	292	172	47	2	26
879												
8:00am	12	81	1	1	0	0	2	83	26	11	1	3
221												
Total	12	81	1	1	0	0	2	83	26	11	1	3
222												
... Break ...												
3:30	4	149	0	0	0	1	0	95	15	51	0	19
334												
3:45	9	122	0	0	0	0	0	67	24	41	0	17
280												
Hour Total	13	271	0	0	0	1	0	162	39	92	0	36
614												
4:00pm	4	105	5	0	0	0	0	102	20	45	0	22
303												
4:15	4	116	0	2	0	0	0	97	20	43	1	13
314												
4:30	7	103	0	2	0	1	0	91	7	41	0	5
257												

24-HOUR TRAFFIC COUNT - STATION SUMMARY

HAWAII STATE DEPARTMENT OF TRANSPORTATION
ROADWAY PLANNING DIVISION

Station No : 8-P														
Location : Queen Kaahumanu Highway at Keahole Airport Road														
STATION CHARACTERISTICS		INTERSECTION APPROACHES												
		LEG 1	LEG 2	LEG 3	LEG 4									
Traffic Control														
Width of Approach (ft)														
Number of Lanes at Approach														
Separate Turning Lane (L, R, L/R)														
Parking (AM, PM, All Day, None)														
Bus Stop (NS: Near Side, FS: Far Side)														
DATE	24-HOUR TRAFFIC VOLUMES												Vehicles Entering Intersection	
	MOV 01	MOV 05	TOTAL	MOV 02	MOV 06	TOTAL	MOV 03	MOV 07	TOTAL	MOV 04	MOV 08	TOTAL		
07/19-20/94	4827	4839	9666	3357	3347	6704	8172	8371	12543					14156
07/31-08/01/94	4748	8590	10338	4002	3874	7876	7508	7808	15016					16256
10/03-08/98	6211	8101	12312	4442	4005	8047	8853	8548	17199					19308
05/00-10/00	6358	8478	13036	4057	4133	8190	8872	8846	17317					18288

Station Summary updated 12/2000

STATION NO : 8-P

4:45	5	92	0	0	0	1	0	79	14	40	0	11
243												
Hour Total	20	436	5	4	0	2	0	169	61	169	1	51
1116												
5:00pm	2	91	0	0	0	0	0	65	13	48	0	8
227												
5:15	4	94	0	0	0	1	0	102	10	28	0	16
255												
5:30	1	93	0	0	0	0	0	91	1	34	0	20
240												
Total	7	278	0	0	0	1	0	258	24	110	0	44
722												
Grand	173	1490	8	6	2	5	6	1397	466	441	4	162
4080												
% of Total	4.38	36.78	.24	.18	0.06	.18	.18	31.96	11.58	10.99	.18	4.03
Approach	41.28			.36			63.68			15.08		
% of Approach	10.48	89.28	.58	46.28	15.48	38.58	.38	73.28	26.38	72.78	.78	26.78

18-May-00

State of Hawaii, Department of Transportation, Highways Division

ISLAND: HAWAII
STATION NO: 8-P
AUX NO:
FUND SYSTEM:
FILE: LEG 2

STATION DESCRIPTION: QUEEN KAAMAMAMU HIGHWAY
AT KEAMOLE AIRPORT ROAD
HAWAII

TC NO. 8-P
ID NO. 22,15

COUNTY GROUP ID:
ROUTE NO:
M.P. 1
MVT BY NAME: KEAMOLE AIRPORT RD
NOV(1) DIR: INBOUND
NOV(2) DIR: OUTBOUND

CORRIDOR ID:
SURVEY DATE:

ASSIGNED DATE:

D-01 REG SURVEY DATE: 05/08/00 START TIME: 10:15
D-02 REG SURVEY DATE: 05/09/00 START TIME: 10:15

Table with columns: TIME-AM, MOV 1, MOV 2, MOV 3, MOV 4, TOTAL, TIME-PM, MOV 1, MOV 2, MOV 3, MOV 4, TOTAL. Rows include time intervals like 12:00-12:15, 12:15-12:30, etc.

Summary tables for AM COMMITTEE PERIOD (08:00 - 09:00), AM PERIOD (11:00 - 11:00), AM PERIOD (11:00 - 11:00), and PM COMMITTEE PERIOD (11:00 - 11:00) with columns for NOV 1, NOV 2, NOV 3, NOV 4, and TOTAL.

18-May-00

State of Hawaii, Department of Transportation, Highways Division

ISLAND: HAWAII
STATION NO: 8-P
AUX NO:
FUND SYSTEM:
FILE: LEG 1

STATION DESCRIPTION: QUEEN KAAMAMAMU HIGHWAY
AT KEAMOLE AIRPORT ROAD
HAWAII

TC NO. 8-P
ID NO. 36,41

COUNTY GROUP ID:
ROUTE NO:
M.P. 1
MVT BY NAME: QUEEN KAAMAMAMU HWY
NOV(1) DIR: TO PALANI RD
NOV(2) DIR: TO KUNIO WHARF GATE RT

CORRIDOR ID:
SURVEY DATE:

ASSIGNED DATE:

D-01 REG SURVEY DATE: 05/08/00 START TIME: 10:15
D-02 REG SURVEY DATE: 05/09/00 START TIME: 10:15

Table with columns: TIME-AM, MOV 1, MOV 2, MOV 3, MOV 4, TOTAL, TIME-PM, MOV 1, MOV 2, MOV 3, MOV 4, TOTAL. Rows include time intervals like 12:00-12:15, 12:15-12:30, etc.

Summary tables for AM COMMITTEE PERIOD (08:00 - 09:00), AM PERIOD (11:00 - 11:00), AM PERIOD (11:00 - 11:00), and PM COMMITTEE PERIOD (11:00 - 11:00) with columns for NOV 1, NOV 2, NOV 3, NOV 4, and TOTAL.

Appendix B: Levels of Service Definitions

The *Highway Capacity Manual* defines six Levels of Service (LOS), labeled A through F, from best to worst conditions. Levels of Service for signalized and unsignalized intersections are defined in terms of average user delays. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

For unsignalized intersections, the *Highway Capacity Manual* evaluates gaps in the major street traffic flow and calculates available gaps for left-turns across oncoming traffic and for the left and right-turns onto the major roadway from the minor street.

LEVEL-OF-SERVICE A: Little or no delay.

LEVEL-OF-SERVICE B: Short traffic delays.

LEVEL-OF-SERVICE C: Average traffic delays.

LEVEL-OF-SERVICE D: Long traffic delays.

LEVEL-OF-SERVICE E: Very long traffic delays.

LEVEL-OF-SERVICE F: Demand volume exceeds capacity, resulting in extreme delays with queuing that may cause severe congestion and affect other movements at the intersection.

18-May-00

State of Hawaii, Department of Transportation, Highways Division

ISLAND: HAWAII
STATION NO: 8-9
AUX NO:
FUND SYSTEM:
FILE: LEG 3

STATION DESCRIPTION: QUEEN KAAMAMAU HIGHWAY
AT KANOLE AIRPORT ROAD
HAWAII

TC NO. 8-9
ID NO. 24.23

COUNTY GROUP ID:

CORRIDOR ID:

ASSIGNED DATE:

ROUTE NO: H.P. 1
HWY ST NAME: QUEEN KAAMAMAU HWY
MOV(3): DIR: TO KUNIO WHARF GATE DR
MOV(7): DIR: TO PALANI RD

SURVEY DATE:

D-02 REQ SURVEY DATE: 05/09/00
D-01 REQ SURVEY DATE: 08/09/00

START TIME: 10:00
START TIME: 10:15

TIME-AM	MOV 3	MOV 7	TOTAL	TIME-AM	MOV 3	MOV 7	TOTAL	TIME-PM	MOV 3	MOV 7	TOTAL	TIME-PM	MOV 3	MOV 7	TOTAL
12:00-12:15	4	18	22	6:00-6:15	148	59	204	12:00-12:15	146	143	289	6:00-6:15	99	137	236
12:15-12:30	8	21	29	6:15-6:30	158	61	219	12:15-12:30	142	144	286	6:15-6:30	100	113	213
12:30-12:45	4	21	25	6:30-6:45	187	57	244	12:30-12:45	142	174	316	6:30-6:45	79	111	190
12:45-1:00	4	18	22	6:45-7:00	171	83	254	12:45-1:00	181	135	316	6:45-7:00	77	93	170
1:00-1:15	4	18	22	7:00-7:15	170	84	254	1:00-1:15	158	148	306	7:00-7:15	61	68	129
1:15-1:30	3	12	15	7:15-7:30	224	82	306	1:15-1:30	145	134	279	7:15-7:30	68	71	139
1:30-1:45	3	12	15	7:30-7:45	154	138	292	1:30-1:45	145	137	282	7:30-7:45	78	78	156
1:45-2:00	3	12	15	7:45-8:00	167	111	278	1:45-2:00	134	189	323	7:45-8:00	83	44	127
2:00-2:15	3	12	15	8:00-8:15	139	92	231	2:00-2:15	144	178	322	8:00-8:15	59	22	81
2:15-2:30	4	18	22	8:15-8:30	163	117	280	2:15-2:30	119	211	330	8:15-8:30	60	57	117
2:30-2:45	3	12	15	8:30-8:45	141	145	286	2:30-2:45	117	214	331	8:30-8:45	40	71	111
2:45-3:00	7	27	34	8:45-9:00	144	128	272	2:45-3:00	141	134	275	8:45-9:00	53	56	109
3:00-3:15	7	27	34	9:00-9:15	130	110	240	3:00-3:15	182	188	370	9:00-9:15	44	56	100
3:15-3:30	4	18	22	9:15-9:30	140	114	254	3:15-3:30	121	141	262	9:15-9:30	55	55	110
3:30-3:45	13	38	51	9:30-9:45	163	116	279	3:30-3:45	114	137	251	9:30-9:45	39	50	89
3:45-4:00	10	20	30	9:45-10:00	129	128	257	3:45-4:00	98	229	327	9:45-10:00	44	54	98
4:00-4:15	12	24	36	10:00-10:15	124	141	265	4:00-4:15	139	207	346	10:00-10:15	35	41	76
4:15-4:30	22	39	61	10:15-10:30	115	151	266	4:15-4:30	142	175	317	10:15-10:30	27	34	61
4:30-4:45	14	28	42	10:30-10:45	121	126	247	4:30-4:45	144	183	327	10:30-10:45	24	55	79
4:45-5:00	10	20	30	10:45-11:00	121	132	253	4:45-5:00	181	228	409	10:45-11:00	13	47	60
5:00-5:15	6	12	18	11:00-11:15	132	148	280	5:00-5:15	101	208	309	11:00-11:15	7	29	36
5:15-5:30	104	18	122	11:15-11:30	143	89	232	5:15-5:30	140	140	280	11:15-11:30	9	14	23
5:30-5:45	107	23	130	11:30-11:45	138	135	273	5:30-5:45	114	139	253	11:30-11:45	6	29	35
5:45-6:00	139	17	156	11:45-12:00	136	141	277	5:45-6:00	87	119	206	11:45-12:00	3	14	17

AM COMPUTER PERIOD (8:00 - 8:15)	NOV 3	NOV 7	TOTAL	PM COMPUTER PERIOD (11:00 - 11:15)	NOV 3	NOV 7	TOTAL
TRIP VOLUME	101	101	202	TRIP VOLUME	101	101	202
TRIP VOLUME (FACTORS)	63.58	63.58	127.16	TRIP VOLUME (FACTORS)	63.58	63.58	127.16
TRIP VOLUME (FACTORS)	63.58	63.58	127.16	TRIP VOLUME (FACTORS)	63.58	63.58	127.16
TRIP VOLUME (FACTORS)	63.58	63.58	127.16	TRIP VOLUME (FACTORS)	63.58	63.58	127.16
TRIP VOLUME (FACTORS)	63.58	63.58	127.16	TRIP VOLUME (FACTORS)	63.58	63.58	127.16

Appendix C Level of Service Analysis Worksheets

TWO-WAY STOP CONTROL SUMMARY															
General Information			Site Information												
Project No.	44523	Location	Kashan		County of Hawaii	Maniowala Development	Project ID	2002	County of Hawaii	1110	306	603	0.00	0.01	18.8
Client	PLP	City	Kahului/MTWC												
File Name	PLP	State	HI												
Worksheet	PLP	Map Year	2002		Maniowala Development	March 2002	1710	306	603	0.00	0.01	18.8	11.0	18.8	
Worksheet	PLP	Project ID	2002												
Worksheet	PLP	Project Name	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development		Maniowala Development	March 2002	1710	306	603	0.00	0.01	18.8	11.0	18.8	
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development		Maniowala Development	March 2002	1710	306	603	0.00	0.01	18.8	11.0	18.8	
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development		Maniowala Development	March 2002	1710	306	603	0.00	0.01	18.8	11.0	18.8	
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development		Maniowala Development	March 2002	1710	306	603	0.00	0.01	18.8	11.0	18.8	
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development		Maniowala Development	March 2002	1710	306	603	0.00	0.01	18.8	11.0	18.8	
Worksheet	PLP	Project Description	Maniowala Development												
Worksheet	PLP	Project Description	Maniowala Development												

TWO-WAY STOP CONTROL SUMMARY									
General Information					Site Information				
Analyst	My	Intersection	Queen Kaahumanu/Kukui						
Agency/Co.	PBQD	Jurisdiction	County of Hawaii						
Date Performed	2/27/02	Analysis Year	Future 2010						
Analysis Time Period	Mid AM Peak Hour	Project ID	Background/EB Approach Only						
Site West Street: Kukui Makai Access		North/South Street: Queen Kaahumanu Highway							
Intersection Orientation: North-South		Study Period (hrs): 1.00							
Vehicle Volumes and Adjustments									
Major Street	Northbound				Southbound				
Volume	1	2	3	4	5	6	7	8	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR	37	0	0	0	0	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	
Median Type	Unadjusted								
RT Channelized	1	1	1	1	1	1	1	1	
Lanes	L	T	R	L	T	R	L	T	
Configuration	L	T	R	L	T	R	L	T	
Upstream Signal	0	0	0	0	0	0	0	0	
Minor Street	Westbound				Eastbound				
Volume	7	8	9	10	11	12	13	14	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR	24	5	0	0	0	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	
Percent Grade (%)	0								
Lanes	N	N	N	N	N	N	N	N	
Configuration	0	0	0	0	0	0	0	0	
RT Channelized	0	0	0	0	0	0	0	0	
Lanes	L	T	R	L	T	R	L	T	
Configuration	L	T	R	L	T	R	L	T	
Delay, Queue Length, and Level of Service									
Approach	Westbound			Eastbound					
Volume	1	4	7	8	9	10	11	12	
Lane Configuration	L	L	L	L	L	L	L	L	
VC (mi/vph)	1067	182	569	0	0	0	0	0	
MC	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
25% queue length	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	
Control Delay	8.4	24.9	11.3	0	0	0	0	0	
LOS	A	C	B						
Approach Delay	-	-	24.9						
Approach LOS	-	-	C						

TWO-WAY STOP CONTROL SUMMARY									
General Information					Site Information				
Analyst	My	Intersection	Queen Kaahumanu/Kukui						
Agency/Co.	PBQD	Jurisdiction	County of Hawaii						
Date Performed	2/27/02	Analysis Year	Future 2010						
Analysis Time Period	Mid AM Peak Hour	Project ID	Background/EB Approach Only						
Site West Street: Kukui Makai Access		North/South Street: Queen Kaahumanu Highway							
Intersection Orientation: North-South		Study Period (hrs): 1.00							
Vehicle Volumes and Adjustments									
Major Street	Northbound				Southbound				
Volume	1	2	3	4	5	6	7	8	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR	37	0	0	0	0	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	
Median Type	Unadjusted								
RT Channelized	1	1	1	1	1	1	1	1	
Lanes	L	T	R	L	T	R	L	T	
Configuration	L	T	R	L	T	R	L	T	
Upstream Signal	0	0	0	0	0	0	0	0	
Minor Street	Westbound				Eastbound				
Volume	7	8	9	10	11	12	13	14	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly Flow Rate, HFR	24	5	0	0	0	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	
Percent Grade (%)	0								
Lanes	N	N	N	N	N	N	N	N	
Configuration	0	0	0	0	0	0	0	0	
RT Channelized	0	0	0	0	0	0	0	0	
Lanes	L	T	R	L	T	R	L	T	
Configuration	L	T	R	L	T	R	L	T	
Delay, Queue Length, and Level of Service									
Approach	Westbound			Eastbound					
Volume	1	4	7	8	9	10	11	12	
Lane Configuration	L	L	L	L	L	L	L	L	
VC (mi/vph)	1067	182	569	0	0	0	0	0	
MC	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
25% queue length	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	
Control Delay	8.4	24.9	11.3	0	0	0	0	0	
LOS	A	C	B						
Approach Delay	-	-	24.9						
Approach LOS	-	-	C						

TWO-WAY STOP CONTROL SUMMARY									
General Information					Site Information				
Analyst	WV	Intersection	Queen Kaahumanu/Kukoo		Queen Kaahumanu/Kukoo				
Agency/Co.	PHOD	Jurisdiction	County of Hawaii		County of Hawaii				
Date Performed	2/27/02	Analysis Year	Future 2010		Future 2010				
Analysis Time Period	Mid AM Peak Hour	Project ID	Background/WB Approach Only		Background/WB Approach Only				
East/West Street: Kukoo Mauka Access					North/South Street: Queen Kaahumanu Highway				
Intersection Orientation: North-South					Study Period (hrs): 1.00				
Vehicle Volumes and Adjustments									
Major Street	Northbound			Southbound					
Movement	L	T	R	L	T	R	L	T	R
Volume	28	585	20	7	0	0	0	0	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	31	650	22	7	0	0	0	0	0
Percent Heavy Vehicles	0	--	--	0	--	--	--	--	--
Median Type	Undivided								
RT Channelized	0								
Lanes	1	1	1	1	1	1	1	1	1
Configuration	L	T	R	L	T	R	L	T	R
Upstream Signal	0								
Minor Street	Westbound			Eastbound					
Movement	L	T	R	L	T	R	L	T	R
Volume	22	5	8	8	5	0	0	0	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	24	5	8	8	5	0	0	0	0
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0
Percent Grade (%)	0								
Flared Approach	N								
Storage	0								
RT Channelized	0								
Lanes	0	1	1	0	1	1	1	1	1
Configuration	LT	T	R	LT	T	R	LT	T	R
Delay, Queue Length, and Level of Service									
Approach	NB		SB		Westbound		Eastbound		
Movement	L	T	L	T	L	T	L	T	
Lane Configuration	L	LT	R	LT	R	LT	R	LT	
v (vph)	31	29	29	8	13	0	0	0	
C (m) (vph)	135	928	332	473	323	0.04	1091	0.00	
v/c	0.2	0.01	0.09	0.02	0.04	0.05	0.13	0.00	
95% queue length	0.0	0.02	0.29	0.05	0.13	16.6	8.3	0.00	
Control Delay	7.2	8.9	16.9	12.7	16.6	16.0	16.0	16.0	
LOS	A	A	C	B	C	C	C	C	
Approach Delay	--								
Approach LOS	--								

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TWO-WAY STOP CONTROL SUMMARY									
General Information					Site Information				
Analyst	WV	Intersection	Queen Kaahumanu/MHVC		Queen Kaahumanu/MHVC				
Agency/Co.	PHOD	Jurisdiction	County of Hawaii		County of Hawaii				
Date Performed	2/27/02	Analysis Year	Future 2010		Future 2010				
Analysis Time Period	Mid AM Peak Hour	Project ID	Background/EB Approach Only		Background/EB Approach Only				
East/West Street: MHVC Access Road					North/South Street: Queen Kaahumanu Highway				
Intersection Orientation: North-South					Study Period (hrs): 1.00				
Vehicle Volumes and Adjustments									
Major Street	Northbound			Southbound					
Movement	L	T	R	L	T	R	L	T	R
Volume	2	0	0	0	0	0	659	2	2
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	0	0	0	0	0	732	2	2
Percent Heavy Vehicles	0	--	--	0	--	--	--	--	--
Median Type	Undivided								
RT Channelized	0								
Lanes	1	1	1	1	1	1	1	1	1
Configuration	L	T	R	L	T	R	L	T	R
Upstream Signal	0								
Minor Street	Westbound			Eastbound					
Movement	L	T	R	L	T	R	L	T	R
Volume	7	8	9	10	11	12	0	0	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	2	0	0	0	0	0	0	0	0
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0
Percent Grade (%)	0								
Flared Approach	N								
Storage	0								
RT Channelized	0								
Lanes	0	1	1	0	1	1	1	1	1
Configuration	LT	T	R	LT	T	R	LT	T	R
Delay, Queue Length, and Level of Service									
Approach	NB		SB		Westbound		Eastbound		
Movement	L	T	L	T	L	T	L	T	
Lane Configuration	L	LT	R	LT	R	LT	R	LT	
v (vph)	2	0	0	0	0	0	0	0	
C (m) (vph)	880	0.00	0.00	0.00	332	1091	335	424	
v/c	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	
95% queue length	0.01	0.01	0.01	0.01	0.02	0.00	0.03	0.02	
Control Delay	9.1	9.1	15.9	8.3	15.8	15.8	15.8	13.6	
LOS	A	A	A	A	C	C	C	B	
Approach Delay	--								
Approach LOS	--								

TWO-WAY STOP CONTROL SUMMARY											
General Information				Site Information							
Analyst	WV	Intersection	Queen Kaahumanu/WHVC								
Agency/Co.	PBQD	Jurisdiction	County of Hawaii								
Date Performed	2/27/02	Analysis Year	Future 2010								
Analysis Time Period	Mid-AM Peak Hour	Project ID	Background-WB Approach Only								
East/West Street: WHVC Access Road				North/South Street: Queen Kaahumanu Highway							
Intersection Orientation: North-South				Study Period (hrs): 1.00							
Vehicle Volumes and Adjustments											
Major Street			Northbound				Southbound				
Movement	1	2	3	4	5	6					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	2	0.90	0.90	0.90	0.90	0.90					
Hourly Flow Rate, HFR	2	698	1	1	0	0					
Percent Heavy Vehicles	0	0	0	0	0	0					
Median Type	Undivided										
RT Channelized	0										
Lanes	1	1	1	1	1	1					
Configuration	L	T	R	L	T	R					
Upstream Signal	0										
Minor Street			Westbound				Eastbound				
Movement	7	8	9	10	11	12					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	2	0.90	0.90	0.90	0.90	0.90					
Hourly Flow Rate, HFR	2	0	0	0	0	0					
Percent Heavy Vehicles	0	0	0	0	0	0					
Percent Grade (%)	0										
Flared Approach	N										
Storage	0										
RT Channelized	0										
Lanes	0	1	1	0	1	1					
Configuration	LT	R	R	LT	T	R					
Delay, Queue Length, and Level of Service											
Approach			SB		Westbound			Eastbound			
Movement	1	4	7	8	9	10	11	12			
Lane Configuration	L	L	LT	R	R	L	L	R			
V (vph)	2	1	2	1	3	0	0	0			
C (m) (vph)	1338	907	353	444	353	1091					
W/C	0.00	0.00	0.01	0.00	0.01	0.00					
55% queue length	0.7	0.00	0.02	0.01	0.03	0.00					
Control Delay	2	9.0	15.3	13.1	15.3	8.3					
LOS	A	A	C	B	C	A					
Approach Delay	14.5										
Approach LOS	B										

TWO-WAY STOP CONTROL SUMMARY											
General Information				Site Information							
Analyst	WV	Intersection	Queen Kaahumanu/KoHo								
Agency/Co.	PBQD	Jurisdiction	County of Hawaii								
Date Performed	2/27/02	Analysis Year	Future 2010								
Analysis Time Period	PM Peak Hour	Project ID	Background-WB Approach Only								
East/West Street: KoHo Makai Access				North/South Street: Queen Kaahumanu Highway							
Intersection Orientation: North-South				Study Period (hrs): 1.00							
Vehicle Volumes and Adjustments											
Major Street			Northbound				Southbound				
Movement	1	2	3	4	5	6					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	2	0.90	0.90	0.90	0.90	0.90					
Hourly Flow Rate, HFR	2	0	0	0	0	0					
Percent Heavy Vehicles	0	0	0	0	0	0					
Median Type	Undivided										
RT Channelized	0										
Lanes	1	1	1	1	1	1					
Configuration	L	T	R	L	T	R					
Upstream Signal	0										
Minor Street			Westbound				Eastbound				
Movement	7	8	9	10	11	12					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	2	0.90	0.90	0.90	0.90	0.90					
Hourly Flow Rate, HFR	2	0	0	0	0	0					
Percent Heavy Vehicles	0	0	0	0	0	0					
Percent Grade (%)	0										
Flared Approach	N										
Storage	0										
RT Channelized	0										
Lanes	0	1	1	0	1	1					
Configuration	LT	R	R	LT	T	R					
Delay, Queue Length, and Level of Service											
Approach			SB		Westbound			Eastbound			
Movement	1	4	7	8	9	10	11	12			
Lane Configuration	L	L	LT	R	R	L	L	R			
V (vph)	2	1	2	1	3	0	0	0			
C (m) (vph)	1338	907	353	444	353	1091					
W/C	0.00	0.00	0.01	0.00	0.01	0.00					
55% queue length	0.7	0.00	0.02	0.01	0.03	0.00					
Control Delay	2	9.0	15.3	13.1	15.3	8.3					
LOS	A	A	C	B	C	A					
Approach Delay	14.5										
Approach LOS	B										

TWO-WAY STOP CONTROL SUMMARY											
General Information						Site Information					
Analyst	WY	Intersection	Queen Kaahumanu/Kuio			Queen Kaahumanu/W-HVC					
Agency/Co.	PBOD	Jurisdiction	County of Hawaii			County of Hawaii					
Date Performed	2/27/02	Analysis Year	Future 2010			Future 2010					
Analysis Time Period	PM Peak Hour	Project ID	Background/WB Approach			Background/EB Approach					
East/West Street: Kuio/Maui Access						North/South Street: Queen Kaahumanu Highway					
Intersection Orientation: North-South						Study Period (hrs): 1.00					
Vehicle Volumes and Adjustments											
Major Street	Northbound			Southbound							
Movement	1	2	3	4	5	6					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	25	585	20	0.90	0.90	0.90					
Hourly Flow Rate, HFR	27	650	22	7	0	0					
Percent Heavy Vehicles	0	0	0	0	0	0					
Median Type	Undivided										
RT Channelized	0										
Lanes	1	1	1	1	1	1					
Configuration	L	T	R	L	T	R					
Upstream Signal	0										
Minor Street	Westbound			Eastbound							
Movement	7	8	9	10	11	12					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	26	5	9	10	5	0					
Hourly Flow Rate, HFR	0.90	0.90	0.90	0.90	0.90	0.90					
Percent Heavy Vehicles	28	5	10	11	5	0					
Percent Heavy Vehicles	0	0	0	0	0	0					
Percent Grade (%)	0										
Flared Approach	N										
Storage	0										
RT Channelized	0										
Lanes	0	1	1	0	1	1					
Configuration	L	T	R	L	T	R					
Delay, Queue Length, and Level of Service											
Approach	NB	SB	Westbound			Eastbound					
Movement	1	4	7	8	9	10	11	12			
Lane Configuration	L	L	L	L	R	L	L	R			
v (vph)	27	7	33	10	16	16	10	0			
C (m) (vph)	637	928	338	473	326	326	1091	1091			
v/c	0.72	0.01	0.10	0.02	0.05	0.05	0.00	0.00			
95% queue length	7.6	0.02	0.32	0.06	0.15	0.15	0.00	0.00			
Control Delay	7.2	8.9	16.8	12.8	16.6	16.6	8.3	8.3			
LOS	A	A	C	B	C	C	A	A			
Approach Delay	-	-	15.9	-	-	-	16.6	-			
Approach LOS	-	-	C	-	-	-	C	-			

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TWO-WAY STOP CONTROL SUMMARY											
General Information						Site Information					
Analyst	WY	Intersection	Queen Kaahumanu/W-HVC			Queen Kaahumanu/W-HVC					
Agency/Co.	PBOD	Jurisdiction	County of Hawaii			County of Hawaii					
Date Performed	2/27/02	Analysis Year	Future 2010			Future 2010					
Analysis Time Period	PM Peak Hour	Project ID	Background/EB Approach			Background/EB Approach					
East/West Street: W-HVC Access Road						North/South Street: Queen Kaahumanu Highway					
Intersection Orientation: North-South						Study Period (hrs): 1.00					
Vehicle Volumes and Adjustments											
Major Street	Northbound			Southbound							
Movement	1	2	3	4	5	6					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	2	0	0	0	1095	2					
Hourly Flow Rate, HFR	0.90	0.90	0.90	0.90	0.90	0.90					
Percent Heavy Vehicles	2	0	0	1	1216	2					
Median Type	Undivided										
RT Channelized	0										
Lanes	1	1	1	1	1	1					
Configuration	L	T	R	L	T	R					
Upstream Signal	0										
Minor Street	Westbound			Eastbound							
Movement	7	8	9	10	11	12					
Volume	L	T	R	L	T	R					
Peak-Hour Factor, PHF	2	0	1	3	0	3					
Hourly Flow Rate, HFR	0.90	0.90	0.90	0.90	0.90	0.90					
Percent Heavy Vehicles	2	0	1	3	0	3					
Percent Heavy Vehicles	0	0	0	0	0	0					
Percent Grade (%)	0										
Flared Approach	N										
Storage	0										
RT Channelized	0										
Lanes	0	1	1	0	1	1					
Configuration	L	T	R	L	T	R					
Delay, Queue Length, and Level of Service											
Approach	NB	SB	Westbound			Eastbound					
Movement	1	4	7	8	9	10	11	12			
Lane Configuration	L	L	L	L	R	L	L	R			
v (vph)	2	1	2	1	3	3	3	223			
C (m) (vph)	560	1376	154	1091	157	157	223	223			
v/c	0.00	0.00	0.01	0.00	0.02	0.02	0.01	0.01			
95% queue length	0.01	0.00	0.03	0.00	0.06	0.06	0.04	0.04			
Control Delay	11.2	28.7	28.7	8.3	28.4	28.4	21.4	21.4			
LOS	B	A	D	A	D	D	A	C			
Approach Delay	-	-	2.9	-	-	-	24.9	-			
Approach LOS	-	-	C	-	-	-	C	-			

TWO-WAY STOP CONTROL SUMMARY										
General Information		Site Information								
Analyst	WY	Intersection	Queen Kaahumanu/MVC							
Agency/Co.	PHOD	Jurisdiction	County of Hawaii							
Date Performed	2/27/02	Analysis Year	Future 2010							
Analysis Time Period	PM Peak Hour	Project ID	Background/WB Approach Only							
East/West Street: WHVC Access Road		North/South Street: Queen Kaahumanu Highway								
Intersection Orientation: North-South		Study Period (hrs): 1.00								
Vehicle Volumes and Adjustments										
Major Street	Northbound			Southbound						
Movement	1	2	3	4	5	6				
	L	T	R	L	T	R				
Volume	2	627	0	1	0	0				
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly Flow Rate, HFR	2	696	0	1	0	0				
Percent Heavy Vehicles	0	0	0	0	0	0				
Median Type	Undivided									
RT Channelized	0									
Lanes	1	1	1	1	1	1				
Configuration	L	T	R	L	T	R				
Upstream Signal	0									
Minor Street	Westbound			Eastbound						
Movement	7	8	9	10	11	12				
	L	T	R	L	T	R				
Volume	2	0	1	3	0	0				
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly Flow Rate, HFR	2	0	1	3	0	0				
Percent Heavy Vehicles	0	0	0	0	0	0				
Percent Grade (%)	0									
Shared Approach	N									
Storage	0									
RT Channelized	0									
Lanes	0	1	1	0	1	1				
Configuration	L	T	R	L	T	R				
Delay, Queue Length, and Level of Service										
Approach	NB	SB	Westbound			Eastbound				
Movement	1	4	7	8	9	10	11	12		
Lane Configuration	L	L	L	T	R	L	T	R		
v (vph)	2	1	2	1	1	3	0	0		
C (m) (vph)	1.376	909	354	445	354	1091	0.00	0.00		
v/c	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00		
95% queue length	0.0	0.00	0.02	0.01	0.01	0.03	0.00	0.00		
Control Delay	7.2	9.0	15.2	13.1	15.3	8.3	15.3	8.3		
LOS	A	A	C	B	C	C	A	A		
Approach Delay	14.5									
Approach LOS	B									

TWO-WAY STOP CONTROL SUMMARY										
General Information		Site Information								
Analyst	WY	Intersection	Queen Kaahumanu/Kukoo							
Agency/Co.	PHOD	Jurisdiction	County of Hawaii							
Date Performed	2/27/02	Analysis Year	Future 2010							
Analysis Time Period	Mid AM Peak Hour	Project ID	Maintenance Using Kukoo Access/EB Approach Only							
East/West Street: Kukoo Makai Access		North/South Street: Queen Kaahumanu Highway								
Intersection Orientation: North-South		Study Period (hrs): 1.00								
Vehicle Volumes and Adjustments										
Major Street	Northbound			Southbound						
Movement	1	2	3	4	5	6				
	L	T	R	L	T	R				
Volume	44	0	0	7	600	14				
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly Flow Rate, HFR	48	0	0	7	666	15				
Percent Heavy Vehicles	0	0	0	0	0	0				
Median Type	Undivided									
RT Channelized	0									
Lanes	1	1	1	1	1	1				
Configuration	L	T	R	L	T	R				
Upstream Signal	0									
Minor Street	Westbound			Eastbound						
Movement	7	8	9	10	11	12				
	L	T	R	L	T	R				
Volume	22	5	0	13	5	40				
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly Flow Rate, HFR	24	5	0	14	5	44				
Percent Heavy Vehicles	0	0	0	0	0	0				
Percent Grade (%)	0									
Shared Approach	N									
Storage	0									
RT Channelized	0									
Lanes	0	1	1	0	1	1				
Configuration	L	T	R	L	T	R				
Delay, Queue Length, and Level of Service										
Approach	NB	SB	Westbound			Eastbound				
Movement	1	4	7	8	9	10	11	12		
Lane Configuration	L	L	L	T	R	L	T	R		
v (vph)	48	7	29	0	19	0	44	44		
C (m) (vph)	921	637	265	1091	302	463	0.10	0.10		
v/c	0.05	0.00	0.11	0.00	0.06	0.00	0.20	0.31		
95% queue length	0.16	0.00	0.37	0.00	0.20	0.00	0.20	0.31		
Control Delay	9.1	7.2	20.3	8.3	17.7	13.6	13.6	8.3		
LOS	A	A	C	A	C	A	C	B		
Approach Delay	20.8									
Approach LOS	B									

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information		
Analyst	WY	Intersection	Queen Kaahumanu/Kukio	
Agency/Co	TRBD	Jurisdiction	County of Hawaii	
Date Performed	2/27/02	Analysis Year	Future 2010	
Analysis Time Period	AM Peak Hour	Project ID	Maniowai Using Kukio Access/WB Approach Only	
East West Street: Kukio Mauka Access		North/South Street: Queen Kaahumanu Highway		
Intersection Orientation: North-South		Study Period (hrs): 1.00		
Vehicle Volumes and Adjustments				
Major Street	Northbound		Southbound	
Movement	1	2	3	
	L	T	R	
Volume	44	585	20	
Peak-Hour Factor, PHF	0.90	0.90	0.90	
Hourly Flow Rate, HFR	48	650	22	
Percent Heavy Vehicles	0	0	0	
Median Type	Undivided			
RT Channelized	0			
Lanes	1	1	1	
Configuration	L	T	R	
Upstream Signal	0			
Minor Street	Westbound		Eastbound	
Movement	7	8	9	
	L	T	R	
Volume	22	5	17	
Peak-Hour Factor, PHF	0.90	0.90	0.90	
Hourly Flow Rate, HFR	24	5	14	
Percent Heavy Vehicles	0	0	0	
Percent Grade (%)	0			
Flared Approach	N			
Storage	0			
RT Channelized	0			
Lanes	1	1	0	
Configuration	L	T	R	
Delay, Queue Length, and Level of Service				
Approach	NB	SB	Westbound	Eastbound
Movement	1	4	7	8
	L	L	LT	R
Lane Configuration	4/8	7	29	8
V (vph)	133	928	313	473
C (m) (vph)	0.3	0.01	0.09	0.02
W/C	0.0	0.02	0.31	0.05
95% queue length	7.3	8.9	17.7	12.7
Control Delay	A	A	C	B
LOS	-	-	16.6	C
Approach Delay	17.7			
Approach LOS	C			

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information		
Analyst	WY	Intersection	Queen Kaahumanu/Kukio	
Agency/Co	TRBD	Jurisdiction	County of Hawaii	
Date Performed	3/7/2001	Analysis Year	Future 2010	
Analysis Time Period	PM Peak Hour	Project ID	Maniowai Using Kukio Access/EB Approach Only	
East West Street: Kukio Mauka Access		North/South Street: Queen Kaahumanu Highway		
Intersection Orientation: North-South		Study Period (hrs): 1.00		
Vehicle Volumes and Adjustments				
Major Street	Northbound		Southbound	
Movement	1	2	3	
	L	T	R	
Volume	39	0	7	
Peak-Hour Factor, PHF	0.90	0.90	0.90	
Hourly Flow Rate, HFR	43	0	7	
Percent Heavy Vehicles	0	0	0	
Median Type	Undivided			
RT Channelized	0			
Lanes	1	1	1	
Configuration	L	T	R	
Upstream Signal	0			
Minor Street	Westbound		Eastbound	
Movement	7	8	9	
	L	T	R	
Volume	26	5	16	
Peak-Hour Factor, PHF	0.90	0.90	0.90	
Hourly Flow Rate, HFR	28	5	17	
Percent Heavy Vehicles	0	0	0	
Percent Grade (%)	0			
Flared Approach	N			
Storage	0			
RT Channelized	0			
Lanes	1	1	0	
Configuration	L	T	R	
Delay, Queue Length, and Level of Service				
Approach	NB	SB	Westbound	Eastbound
Movement	1	4	7	8
	L	L	LT	R
Lane Configuration	4/3	7	33	0
V (vph)	605	139	107	1031
C (m) (vph)	0.07	0.0	0.31	0.00
W/C	0.23	0.0	1.29	0.00
95% queue length	11.4	7.2	53.5	8.3
Control Delay	B	A	F	D
LOS	-	-	53.5	27.3
Approach Delay	53.5			
Approach LOS	D			

TWO-WAY STOP CONTROL SUMMARY														
General Information				Site Information										
Analyst	WY	Agency/Co.	WY	Intersection	Queen Kaahumanu/Kukoo			Queen Kaahumanu/Kukoo						
Date Performed	9/2/2001	Jurisdiction	County of Hawaii	Analysis Year	Future 2010			Future 2010						
Analysis Time Period	PM Peak Hour	Project ID		Mannowah Using Kukoo Access/WB Approach Only										
East/West Street: Kukoo Makai Access				North/South Street: Queen Kaahumanu Highway										
Intersection Orientation: North-South				Study Period (hrs): 1.00										
Vehicle Volumes and Adjustments														
Major Street	Northbound				Southbound									
Movement	1	2	3	4	5	6	7	8	9	10	11	12		
Volume	L	T	R	L	T	R	L	T	R	L	T	R		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	43	650	22	7	0	0	0	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Median Type	Undivided													
RT Channelized	0													
Lanes	1	1	1	1	1	1	1	1	1	1	1	1		
Configuration	L	T	R	L	T	R	L	T	R	L	T	R		
Upstream Signal	0													
Minor Street	Westbound				Eastbound									
Movement	1	2	3	4	5	6	7	8	9	10	11	12		
Volume	L	T	R	L	T	R	L	T	R	L	T	R		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	28	5	10	17	5	0	0	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Percent Grade (%)	0													
Flared Approach	0													
Storage	N													
RT Channelized	0													
Lanes	0	1	1	0	1	1	0	1	1	0	1	1		
Configuration	L	T	R	L	T	R	L	T	R	L	T	R		
Delay, Queue Length, and Level of Service														
Approach	NB	SB	Westbound				Eastbound							
Movement	1	4	7	8	9	10	11	12	13	14	15	16		
Lane Configuration	L	L	LT	R	R	LT	R	R	LT	R	R	R		
Volume (vph)	43	650	33	319	473	307	307	1091	22	22	22	0		
Queue Length (m)	0.03	0.01	0.10	0.02	0.02	0.07	0.07	0.00	0.03	0.03	0.03	0.00		
95% queue length	7.3	0.02	0.35	0.06	0.06	0.23	0.23	0.00	0.06	0.06	0.06	0.00		
Control Delay	A	A	C	B	B	C	C	A	C	C	C	A		
LOS	A	A	C	B	B	C	C	A	C	C	C	A		
Approach Delay	-	-	16.5				17.6				17.6			
Approach LOS	-	-	C				C				C			

TWO-WAY STOP CONTROL SUMMARY														
General Information				Site Information										
Analyst	WY	Agency/Co.	WY	Intersection	Queen Kaahumanu/MHVC			Queen Kaahumanu/MHVC						
Date Performed	2/27/02	Jurisdiction	County of Hawaii	Analysis Year	Future 2010			Future 2010						
Analysis Time Period	Mid AM Peak Hour	Project ID		Mannowah Using Kukoo-EB Approach Only										
East/West Street: WHVC Access Road				North/South Street: Queen Kaahumanu Highway										
Intersection Orientation: North-South				Study Period (hrs): 1.00										
Vehicle Volumes and Adjustments														
Major Street	Northbound				Southbound									
Movement	1	2	3	4	5	6	7	8	9	10	11	12		
Volume	L	T	R	L	T	R	L	T	R	L	T	R		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	2	0	0	0	0	0	0	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Median Type	Undivided													
RT Channelized	0													
Lanes	1	1	1	1	1	1	1	1	1	1	1	1		
Configuration	L	T	R	L	T	R	L	T	R	L	T	R		
Upstream Signal	0													
Minor Street	Westbound				Eastbound									
Movement	1	2	3	4	5	6	7	8	9	10	11	12		
Volume	L	T	R	L	T	R	L	T	R	L	T	R		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	2	0	0	0	0	0	0	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Percent Grade (%)	0													
Flared Approach	N													
Storage	0													
RT Channelized	0													
Lanes	0	1	1	0	1	1	0	1	1	0	1	1		
Configuration	L	T	R	L	T	R	L	T	R	L	T	R		
Delay, Queue Length, and Level of Service														
Approach	NB	SB	Westbound				Eastbound							
Movement	1	4	7	8	9	10	11	12	13	14	15	16		
Lane Configuration	L	L	LT	R	R	LT	R	R	LT	R	R	R		
Volume (vph)	2	880	2	332	332	1091	1091	424	2	2	2	0		
Queue Length (m)	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
95% queue length	0.01	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Control Delay	A	A	C	B	B	C	C	A	C	C	C	A		
LOS	A	A	C	B	B	C	C	A	C	C	C	A		
Approach Delay	-	-	11.4				11.4				11.4			
Approach LOS	-	-	C				C				C			

TWO-WAY STOP CONTROL SUMMARY												
General Information						Site Information						
Analyst	Ivy	Intersection	Queen Kaahumanu/WHVC	Agency/Co.	PBQD	Jurisdiction	County of Hawaii	Date Performed	12/27/02	Analysis Year	Future 2010	
Analysis Time Period	AM Peak Hour	Project ID	Maniowai using Kukui-WB Approach Only									
EastWest Street: WHVC Access Road						North/South Street: Queen Kaahumanu Highway						
Intersection Orientation: North-South						Study Period (hrs): 1.00						
Vehicle Volumes and Adjustments												
Major Street	Northbound			Southbound								
Movement	1	2	3	4	5	6						
Volume	L	T	R	L	T	R						
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90						
Hourly Flow Rate, HFR	2	716	1	0	0	0						
Percent Heavy Vehicles	0	0	0	0	0	0						
Median Type	Undivided											
RT Channelized	0											
Lanes	1	1	1	1	1	1						
Configuration	L	T	R	L	T	R						
Upstream Signal	0											
Minor Street	Westbound			Eastbound								
Movement	7	8	9	10	11	12						
Volume	L	T	R	L	T	R						
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90						
Hourly Flow Rate, HFR	2	0	1	3	0	0						
Percent Heavy Vehicles	0	0	0	0	0	0						
Percent Grade (%)	0											
Flared Approach	N											
Storage	0											
RT Channelized	0											
Lanes	0	1	1	0	1	1						
Configuration	LT	R	LT	LT	R	R						
Delay, Queue Length, and Level of Service												
Approach	NB			SB			Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12				
Lane Configuration	L	L	LT	L	R	LT	LT	R				
V (vph)	2	1	2	1	3	3	3	3				
C (m) (vph)	106	893	344	434	343	1091	343	1091				
v/c	0.00	0.00	0.01	0.00	0.01	0.03	0.01	0.00				
95% queue length	0	0	0.02	0.01	0.02	0.03	0.02	0.00				
Control Delay	22	90	15.5	13.3	15.6	8.3	15.6	8.3				
LOS	A	A	C	B	C	C	C	B				
Approach Delay	14.8			14.8			15.6					
Approach LOS	B			B			C					

TWO-WAY STOP CONTROL SUMMARY												
General Information						Site Information						
Analyst	Ivy	Intersection	Queen Kaahumanu/WHVC	Agency/Co.	PBQD	Jurisdiction	County of Hawaii	Date Performed	12/27/02	Analysis Year	Future 2010	
Analysis Time Period	PM Peak Hour	Project ID	Maniowai using Kukui-EB Approach Only									
EastWest Street: WHVC Access Road						North/South Street: Queen Kaahumanu Highway						
Intersection Orientation: North-South						Study Period (hrs): 1.00						
Vehicle Volumes and Adjustments												
Major Street	Northbound			Southbound								
Movement	1	2	3	4	5	6						
Volume	L	T	R	L	T	R						
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90						
Hourly Flow Rate, HFR	2	0	1	0	0	0						
Percent Heavy Vehicles	0	0	0	0	0	0						
Median Type	Undivided											
RT Channelized	0											
Lanes	1	1	1	1	1	1						
Configuration	L	T	R	L	T	R						
Upstream Signal	0											
Minor Street	Westbound			Eastbound								
Movement	7	8	9	10	11	12						
Volume	L	T	R	L	T	R						
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90						
Hourly Flow Rate, HFR	2	0	1	3	0	0						
Percent Heavy Vehicles	0	0	0	0	0	0						
Percent Grade (%)	0											
Flared Approach	N											
Storage	0											
RT Channelized	0											
Lanes	0	1	1	0	1	1						
Configuration	LT	R	LT	LT	R	R						
Delay, Queue Length, and Level of Service												
Approach	NB			SB			Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12				
Lane Configuration	L	L	LT	L	R	LT	LT	R				
V (vph)	2	1	2	1	3	3	3	3				
C (m) (vph)	570	636	149	1091	153	1091	153	1091				
v/c	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.00				
95% queue length	0.01	0.01	0.04	0.00	0.00	0.00	0.06	0.00				
Control Delay	11.3	7.2	29.5	8.3	29.0	21.8	25.4	21.8				
LOS	B	A	D	B	C	C	D	C				
Approach Delay	29.5			29.0			25.4					
Approach LOS	D			D			D					

TWO-WAY STOP CONTROL SUMMARY														
General Information						Site Information								
Analyst	WV	Intersection	Queen Kaahumanu	County	KAHUMANU	Analyst	WV	Intersection	Queen Kaahumanu	County	KAHUMANU			
Agency/Co.	PBOD	Jurisdiction	County of Hawaii	Future Year	2010	Agency/Co.	PBOD	Jurisdiction	County of Hawaii	Future Year	2010			
Date Performed	2/27/02	Analysis Year	Future 2010	Project ID		Date Performed	2/27/02	Analysis Year	Future 2010	Project ID				
Analysis Time Period	PM Peak Hour					Analysis Time Period	PM AM Peak Hour							
East/West Street: WHVC Access road						North/South Street: Queen Kaahumanu Highway								
Intersection Orientation: North-South						Study Period (hrs): 1.00								
Vehicle Volumes and Adjustments														
Major Street	Northbound			Southbound			Westbound			Eastbound				
Movement	L	T	R	L	T	R	L	T	R	L	T	R		
Volume	2	0	641	0	0	712	0	0	712	0	0	641		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	2	0	712	0	0	712	0	0	712	0	0	641		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Median Type	Undivided													
RT Channelized	0													
Lanes	1													
Configuration	L T R													
Upstream Signal	0													
Minor Street	Westbound			Eastbound			Westbound			Eastbound				
Movement	L	T	R	L	T	R	L	T	R	L	T	R		
Volume	2	0	0	0	0	0	2	0	0	0	0	0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	2	0	0	0	0	0	2	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Percent Grade (%)	0													
Flared Approach	N													
Storage	0													
RT Channelized	0													
Lanes	0													
Configuration	L T R													
Delay, Queue Length, and Level of Service														
Approach	NB	SB	Westbound			Eastbound			Westbound			Eastbound		
Movement	L	L	L	T	R	L	T	R	L	T	R	L	T	R
Lane Configuration	L	L	L	T	R	L	T	R	L	T	R	L	T	R
v (vph)	2	0	2	0	0	2	0	0	2	0	0	2	0	0
C (m) (vph)	63	0	346	436	0	346	436	0	346	436	0	346	436	0
vic	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00
95% queue length	0.00	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00
Control Delay	2.2	9.0	15.5	13.3	15.5	13.3	15.5	2.2	9.0	15.5	13.3	15.5	2.2	9.0
LOS	A	A	C	B	C	B	C	A	A	C	B	C	A	A
Approach Delay	14.7													
Approach LOS	B													

TWO-WAY STOP CONTROL SUMMARY														
General Information						Site Information								
Analyst	WV	Intersection	Queen Kaahumanu	County	KAHUMANU	Analyst	WV	Intersection	Queen Kaahumanu	County	KAHUMANU			
Agency/Co.	PBOD	Jurisdiction	County of Hawaii	Future Year	2010	Agency/Co.	PBOD	Jurisdiction	County of Hawaii	Future Year	2010			
Date Performed	2/27/02	Analysis Year	Future 2010	Project ID		Date Performed	2/27/02	Analysis Year	Future 2010	Project ID				
Analysis Time Period	PM AM Peak Hour					Analysis Time Period	PM AM Peak Hour							
East/West Street: Kukoa Makai Access						North/South Street: Queen Kaahumanu Highway								
Intersection Orientation: North-South						Study Period (hrs): 1.00								
Vehicle Volumes and Adjustments														
Major Street	Northbound			Southbound			Westbound			Eastbound				
Movement	L	T	R	L	T	R	L	T	R	L	T	R		
Volume	28	0	0	0	0	0	28	0	0	0	0	0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	28	0	0	0	0	0	28	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Median Type	Undivided													
RT Channelized	0													
Lanes	1													
Configuration	L T R													
Upstream Signal	0													
Minor Street	Westbound			Eastbound			Westbound			Eastbound				
Movement	L	T	R	L	T	R	L	T	R	L	T	R		
Volume	22	0	0	0	0	0	22	0	0	0	0	0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR	24	0	0	0	0	0	24	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0		
Percent Grade (%)	0													
Flared Approach	N													
Storage	0													
RT Channelized	0													
Lanes	0													
Configuration	L T R													
Delay, Queue Length, and Level of Service														
Approach	NB	SB	Westbound			Eastbound			Westbound			Eastbound		
Movement	L	L	L	T	R	L	T	R	L	T	R	L	T	R
Lane Configuration	L	L	L	T	R	L	T	R	L	T	R	L	T	R
v (vph)	31	0	31	0	0	31	0	0	31	0	0	31	0	0
C (m) (vph)	920	0	296	1091	0	296	1091	0	296	1091	0	296	1091	0
vic	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95% queue length	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Control Delay	9.0	7.2	18.5	8.3	16.7	18.5	8.3	9.0	7.2	18.5	8.3	16.7	18.5	8.3
LOS	A	A	C	B	C	B	C	A	A	C	B	C	A	A
Approach Delay	14.4													
Approach LOS	B													

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Ivy	Intersection	Queen Kaahumanu/Kukui
Agency/Co.	PSBD	Jurisdiction	County of Hawaii
Date Performed	12/17/02	Analysis Year	Future 2010
Analysis Time Period	PM Peak Hour	Project ID	Maniowahi Using HW/CMS Approach Only
East/West Street: Kukui Maui Access		North/South Street: Queen Kaahumanu Highway	
Intersection Orientation: North-South		Study Period (hrs): 7:00	

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
	1	2	3	4	5	6
Movement	L	T	R	L	T	R
Volume	28	590	20	7	0	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	31	655	22	7	0	0
Percent Heavy Vehicles	0	0	0	0	0	0
Median Type	Undivided					
RT Channelized	0					
Lanes	1	1	1	1	1	1
Configuration	L	T	R	L	T	R
Upstream Signal	0					
Minor Street	Westbound			Eastbound		
Movement	1	8	9	10	11	12
Lane Configuration	L	T	R	L	T	R
Volume	22	5	8	8	5	0
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	24	5	8	8	5	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0					
Flared Approach	N					
Storage	0					
RT Channelized	0					
Lanes	0	1	1	0	1	1
Configuration	LT	R	R	LT	R	R

Delay, Queue Length, and Level of Service

Approach	SB			Westbound			Eastbound		
	1	4	7	8	9	10	11	12	
Movement	L	L	LT	R	R	L	L	R	
Lane Configuration	31	7	29	8	13	0	0	0	
V (vph)	637	924	330	470	321	1091	0	0	
C (m)	0.02	0.01	0.09	0.02	0.04	0.00	0.00	0.00	
95% queue length	0.05	0.02	0.29	0.05	0.13	0.00	0.00	0.00	
Control Delay	3.2	8.9	17.0	12.8	16.7	8.3	16.7	16.7	
LOS	A	A	C	B	C	A	A	C	
Approach Delay	16.1								
Approach LOS	C								

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	Ivy	Intersection	Queen Kaahumanu/Kukui
Agency/Co.	PSBD	Jurisdiction	County of Hawaii
Date Performed	12/17/02	Analysis Year	Future 2010
Analysis Time Period	PM Peak Hour	Project ID	Maniowahi Using HW/CMS Approach Only
East/West Street: Kukui Maui Access		North/South Street: Queen Kaahumanu Highway	
Intersection Orientation: North-South		Study Period (hrs): 7:00	

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
	1	2	3	4	5	6
Movement	L	T	R	L	T	R
Volume	25	0	0	7	1046	8
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	27	0	0	7	1162	8
Percent Heavy Vehicles	0	0	0	0	0	0
Median Type	Undivided					
RT Channelized	0					
Lanes	1	1	1	1	1	1
Configuration	L	T	R	L	T	R
Upstream Signal	0					
Minor Street	Westbound			Eastbound		
Movement	1	8	9	10	11	12
Lane Configuration	L	T	R	L	T	R
Volume	26	5	0	10	5	31
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate, HFR	26	5	0	11	5	34
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0					
Flared Approach	N					
Storage	0					
RT Channelized	0					
Lanes	0	1	1	0	1	1
Configuration	LT	R	R	LT	R	R

Delay, Queue Length, and Level of Service

Approach	SB			Westbound			Eastbound		
	1	4	7	8	9	10	11	12	
Movement	L	L	LT	R	R	L	L	R	
Lane Configuration	27	7	33	0	16	0	0	34	
V (vph)	604	167	126	1091	153	240	0	0	
C (m)	0.04	0.01	0.05	0.02	0.10	0.00	0.00	0.14	
95% queue length	0.14	0.01	1.04	0.00	0.35	0.00	0.00	0.49	
Control Delay	11.2	2.2	43.6	8.3	31.3	22.5	16.7	16.7	
LOS	B	A	E	A	D	C	A	C	
Approach Delay	25.3								
Approach LOS	D								

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TWO-WAY STOP CONTROL SUMMARY															
General Information			Site Information												
Analyst	Agency/Co.	Date Performed	Analysis Time Period	Intersection	Jurisdiction	Analysis Year	Project ID	Northbound	Southbound	Eastbound	Westbound				
Jwy	PBUD	3/27/02	P-AM Peak Hour	Queen Kaahumanu/Kukui	County of Hawaii	Future 2010	Mannowai Using WHVC/MB Approach Only	2	4	10	12				
East/West Street: Kukui Maui Access				North/South Street: Queen Kaahumanu Highway											
Intersection Orientation: North-South				Study Period (hrs): 1.00											
Vehicle Volumes and Adjustments															
Major Street	Northbound			Southbound			Eastbound			Westbound					
Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Volume	25	592	20	7	0	0	5	0	0	10	11	12			
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly Flow Rate, HFR	27	657	22	7	0	0	7	0	0	11	11	13			
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0			
Median Type	Unprovided														
RT Channelized	0														
Lanes	1	1	1	1	1	1	1	1	1	1	1	1			
Configuration	L	T	R	L	T	R	L	T	R	L	T	R			
Upstream Signal	0														
Minor Street	Westbound			Eastbound			Westbound			Eastbound					
Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Volume	45	5	9	10	10	12	8	9	10	11	11	12			
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly Flow Rate, HFR	28	5	10	11	11	13	8	9	10	11	11	12			
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0			
Percent Grade (%)	0														
Flared Approach	N														
Storage	0														
RT Channelized	0														
Lanes	0	1	1	0	0	1	0	1	1	1	1	1			
Configuration	L	T	R	L	T	R	L	T	R	L	T	R			
Delay, Queue Length, and Level of Service															
Approach	MB	SB	Westbound			Eastbound			Westbound			Eastbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Lane Configuration	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
V (vph)	25	25	33	33	33	33	33	33	33	33	33	33	33	33	33
C (m) (vph)	163	163	923	334	468	322	1091	321	321	321	321	321	321	321	321
v/c	0.03	0.03	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
95% queue length	0.05	0.05	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Control Delay	7.2	7.2	8.9	17.0	12.9	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
LOS	A	A	A	C	B	C	C	C	C	C	C	C	C	C	C
Approach Delay	16.0														
Approach LOS	C														

TWO-WAY STOP CONTROL SUMMARY															
General Information			Site Information												
Analyst	Agency/Co.	Date Performed	Analysis Time Period	Intersection	Jurisdiction	Analysis Year	Project ID	Northbound	Southbound	Eastbound	Westbound				
Jwy	PBUD	3/27/02	P-AM Peak Hour	Queen Kaahumanu/WHVC	County of Hawaii	Future 2010	Mannowai Using WHVC-FB Approach Only	2	4	10	12				
East/West Street: WHVC Access Road				North/South Street: Queen Kaahumanu Highway											
Intersection Orientation: North-South				Study Period (hrs): 1.00											
Vehicle Volumes and Adjustments															
Major Street	Northbound			Southbound			Eastbound			Westbound					
Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Volume	16	0	0	0	0	0	0	0	0	0	0	0			
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly Flow Rate, HFR	20	0	0	0	0	0	0	0	0	0	0	0			
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0			
Median Type	Unprovided														
RT Channelized	0														
Lanes	1	1	1	1	1	1	1	1	1	1	1	1			
Configuration	L	T	R	L	T	R	L	T	R	L	T	R			
Upstream Signal	0														
Minor Street	Westbound			Eastbound			Westbound			Eastbound					
Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Volume	2	0	0	0	0	0	0	0	0	0	0	0			
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly Flow Rate, HFR	2	0	0	0	0	0	0	0	0	0	0	0			
Percent Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0			
Percent Grade (%)	0														
Flared Approach	N														
Storage	0														
RT Channelized	0														
Lanes	0	1	1	0	0	1	0	1	1	1	1	1			
Configuration	L	T	R	L	T	R	L	T	R	L	T	R			
Delay, Queue Length, and Level of Service															
Approach	MB	SB	Westbound			Eastbound			Westbound			Eastbound			
Movement	L	L	L	L	L	L	L	L	L	L	L	L			
Lane Configuration	L	L	L	L	L	L	L	L	L	L	L	L			
V (vph)	20	20	20	20	20	20	20	20	20	20	20	20			
C (m) (vph)	990	990	299	299	1091	321	321	321	321	321	321	321			
v/c	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
95% queue length	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07			
Control Delay	9.1	9.1	17.1	17.1	8.3	16.5	16.5	16.5	16.5	16.5	16.5	16.5			
LOS	A	A	A	C	B	C	C	C	C	C	C	C			
Approach Delay	14.5														
Approach LOS	B														

TWO-WAY STOP CONTROL SUMMARY											
General Information						Site Information					
Analyst	HWY	Intersection	Queen	Agency/Co	PSDID	Jurisdiction	Keahumahu/MHVC	Date Performed	2/27/02	Analysis Year	Yulure 2010
Analysis Time Period	PM Peak Hour	Project ID	Wainikowai using WHVC-WB Approach Only								
East/West Street: WHVC Access Road											
North/South Street: Queen Keahumahu Highway											
Intersection Orientation: North-South											
Study Period (this): 1.00											
Vehicle Volumes and Adjustments											
Major Street			Northbound			Southbound					
Movement	1	2	3	4	5	6					
	L	R	L	R	L	R					
Volume	16	627	1	1	0	0					
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90					
Hourly Flow Rate, HFR	17	696	1	1	0	0					
Percent Heavy Vehicles	0	--	--	0	--	--					
Median Type	Undivided										
RT Channelized	0										
Lanes	1	1	1	1	1	1					
Configuration	L	T	R	L	L	R					
Upstream Signal	0										
Minor Street			Westbound			Eastbound					
Movement	7	8	9	10	11	12					
	L	T	R	L	T	R					
Volume	2	0	0	9	0	0					
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90					
Hourly Flow Rate, HFR	2	0	0	10	0	0					
Percent Heavy Vehicles	0	0	0	0	0	0					
Percent Grade (%)	0										
Flared Approach	N										
Storage	0										
RT Channelized	0										
Lanes	0	1	1	0	1	1					
Configuration	LT	L	R	LT	L	R					
Delay, Queue Length, and Level of Service											
Approach	NB		SB		Westbound			Eastbound			
Movement	1	4	7	8	9	10	11				
Lane Configuration	L	L	LT	R	R	LT	R				
v (vph)	17	1	2	1	1	10	0				
C (m) (vph)	189	909	336	445	0.00	335	1091				
w/c	0.0	0.00	0.01	0.00	0.00	0.00	0.00				
95% queue length	0.03	0.00	0.02	0.02	0.02	0.09	0.00				
Control Delay	7.2	9.0	15.8	13.1	16.1	16.1	6.3				
LOS	A	A	C	B	C	C	A				
Approach Delay	14.9										
Approach LOS	B										

Appendix H

Ala Kahakai National Trail Study – Record of Decision



United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
400 Harrison Street, Suite 600
San Francisco, California 94107-1372

GA

RECEIVED

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6:40 PM '98

IN REPLY REFER TO
D118(PGSO-PP)

Dear Recipient:

Enclosed is a copy of the Record of Decision (ROD) for the Ala Kahakai National Trail Study. Please keep it with your copy of the final study and environmental impact statement. A notice of availability of the ROD was published in the Federal Register on June 26, 1998. The study and ROD will now be forwarded to the Secretary of the Interior who will transmit them to Congress. If you need more information about the study, please contact Meredith Kaplan by telephone at 415-427-1438, by mail at the letterhead address, or, by e-Mail at meredith_kaplan@nps.gov.

Thank you for your interest in the National Trail Study.

Sincerely,

Meredith Kaplan
John J. Reynolds
Regional Director, Pacific West

Enclosure

cc:
All recipients of National Trail Study and Final Environmental Impact Statement for the
Ala Kahakai

The National Park System Advisory Committee agreed at their November 1997 meeting that the Ala Kahakai does have National Historic Significance based on the criteria developed under the Historic Sites Act of 1935.

Recommended Alternative: Under this alternative, National Historic Trail (continuous), *Alternative B*, the trail would be recognized as a continuous route and over time would become continuous on the ground. Intact segments of the prehistoric and historic *ala loa* would be preserved and protected in place. These segments would be linked with later trails or reconstructed trails, as feasible, to create a continuous trail. It is anticipated that, once records of title are reviewed, most of the trail will be owned in fee simple by the state and reserved for use of the public under the Highways Act of 1892. The NPS would administer and have oversight of the trail in close coordination with the state and county. Nonfederally owned portions of the trail would become official components of the National Trail only through agreements with landowners or land managers.

The NPS would prepare a management plan with the active involvement of native Hawaiians, landowners, trail users, and other interested groups and individuals. An advisory council would be appointed by the Secretary of the Interior. The National Trail would be interpreted as a portion of the ancient *ala loa* and as a traditional cultural property of continuing importance to native Hawaiians. The management plan would include a uniform marker for identifying the trail. State and local agencies, private landowners, local groups, and individuals would manage the trail on the ground. Natural, cultural, and ethnographic resources would be inventoried and protected before trail segments would be promoted for public use. No Federal land acquisition is anticipated (it is expected that any legislation designating the trail would include language prohibiting land acquisition except with the consent of the owner). All current State and County land use regulations would continue to apply to lands adjacent to the trail.

Estimated federal costs for this alternative (presented in the FEIS in 1997 dollars) are as follows: management plan and initial brochure, \$275,000; phased costs (archeological surveys and ethnography, trail identification, restoration, and construction), trailhead and campsite development, facility planning) \$3,679,000; and annual operations cost, \$265,000.

Other Alternatives Considered: Three other alternatives were considered. The No-Action Alternative, *Alternative A*, would result in continuing the present conditions. The Ala Kahakai would remain as the 35-mile state demonstration trail. Piecemeal trail and resource protection would be reactionary as development or other threats occur. The trail would be a disconnected series of trail segments emphasizing lateral shoreline access. Over time, as records of title are researched for various reasons, most of the 175-mile trail would be owned in fee simple by the state and reserved for public use, but the *ala loa* and its role in the lives of ancient and contemporary Hawaiians would not be consistently recognized and interpreted. There would be no overall administration of the trail as a unified whole as part of a system of island trails.

Record of Decision

2

Ala Kahakai National Trail Study

U.S. Department of the Interior, National Park Service
Final Environmental Impact Statement for the
National Trail Study for the Ala Kahakai
Hawaii County, Hawaii

RECORD OF DECISION

Summary: Pursuant to §102(2)(C) of the National Environmental Policy Act of 1969 and the regulations promulgated by the Council on Environmental Quality (40 CFR Part 1500), the Department of the Interior, National Park Service has prepared this Record of Decision for the Final Environmental Impact Statement for the National Trail Study for Ala Kahakai. This 175-mile trail is located parallel to the western and southern shoreline of the Island of Hawaii, from Upolu Point on the north to the eastern boundary of Hawaii Volcanoes National Park. This document is a concise statement of decisions made, alternatives considered, basis for the decision, and mitigating measures developed to avoid or minimize environmental impacts.

Recommendation: This National Trail Study (Study) and Final Environmental Impact Statement (FEIS) were prepared to provide the United States Congress and the public with information about the resources in the study area and how they relate to criteria for the National Trails System (System). The decision on whether to designate the Ala Kahakai as a National Historic Trail will be made by Congress after transmittal of the Study and Record of Decision (ROD) by the Secretary of the Interior. The National Park Service (NPS) recommends *Alternative B*, National Historic Trail (continuous), as the environmentally preferred alternative (and which is described in the FEIS for which the Notice of Availability was published in the Federal Register on April 29, 1998). Out of four alternatives identified and analyzed, the recommended alternative offers the best opportunity to protect trail resources, educate the public about the history and significance of the island shoreline trail, or *ala loa*, and the Hawaiian culture, and provide high quality recreation. The Draft Environmental Impact Statement (DEIS) for the Study did not recommend an alternative. The DEIS was issued in July 1997, and the public review period ended on October 17, 1997.

Findings: The NPS concludes that the Ala Kahakai meets the three criteria as a National Historic Trail as outlined in the National Trails System Act. The NPS also concludes that establishing a continuous trail is physically feasible.

The NPS concludes that desirability of recognizing the trail rests on two key items: first, communities along the way, native Hawaiians, and landowners all be involved in planning and implementing the trail; and second, adequate funding must be ensured at the time the trail is designated to protect cultural and natural resources. If the trail is designated without adequate funding at the outset, resources may be more threatened by unregulated increased public use than they already are.

Record of Decision

1

Ala Kahakai National Trail Study

The State Historic Trail Alternative, *Alternative C*, would require state legislation to recognize the 175-mile trail as a continuous portion of the *ala loa*. The legislation would outline the requirements of a state management plan and the needs for protection of resources. It is anticipated that the state trails and access program, *Nā Ala Hele*, would administer the trail. To achieve the vision for the trail, the state would need to appropriate funds specifically for the planning, protection, development, interpretation, and maintenance of the trail. Since the state is likely to own most of the trail in fee simple, this alternative would appear to be viable.

The National Historic Trail (discontinuous) Alternative, *Alternative D*, would be similar to Alternative B, except that the trail would be recognized as a continuous route, but only intact prehistoric and historic sections would be protected and interpreted for the public. The trail would not be continuous on the ground.

Four additional options were considered but rejected as non-viable.

Basis for the Recommendation: In 1992, the U.S. Congress enacted legislation providing for a study of the potential inclusion of the Ala Kahakai into the System. National Trail Studies must determine whether a trail meets eligibility requirements and whether it is feasible and desirable to add it to the System. The NPS found the trail meets the eligibility criteria, and determined it to be feasible and desirable to designate it as a unit of the System if certain conditions are met.

In addition, National Trail Studies analyze a range of conceptual alternatives for managing the trail, including a no-action, a national trail, and other feasible alternatives. It is NPS policy to fulfill its conservation planning-impact analysis and other stewardship obligations through preparing an EIS for National Trail Studies. Also as a matter of policy, the NPS recommends an alternative, fully recognizing that Congress is the decision-making body.

Each alternative in the Ala Kahakai FEIS considers natural, cultural, scenic and visual, and recreational resources, and the socio-economic environment. Of the four alternatives, the recommended alternative offers the best opportunity to protect trail resources, educate the public about the history and significance of the *ala loa* and the Hawaiian culture, and provide high quality recreation. It would treat the 175-mile trail as a single system, rather than as a series of unrelated segments, providing a context for protection and interpretation. This approach would better protect the resources than the piecemeal approach provided under *Alternative A*, No-Action, or the segmented approach under *Alternative D*, National Historic Trail (discontinuous). Under the No-Action Alternative, trail resources could be lost to continuing development and lack of public awareness of trail resource values. Opportunities would be lost to interpret the Ala Kahakai as part of the *ala loa*. Further, *Alternative C*, State Historic Trail, may appear to be a likely management scenario (since the state anticipates that it will own most of the trail once land titles are investigated), but the state does not appear to have the funds or enough staff to plan for and manage the entire trail. The recommended alternative would allow NPS administration, coordination, oversight, and technical assistance to bolster state and local management of the trail.

Record of Decision

3

Ala Kahakai National Trail Study

Measures to Minimize Harm: The FEIS addresses conceptual management options for the Ala Kahakai. Supplementary conservation planning and impact analysis would be necessary, in conjunction with preparing a management plan; tiered environmental documents for specific trail projects would be prepared as they occur and as appropriate. The FEIS includes practicable means at a programmatic level to avoid or minimize environmental harm. For instance, it is essential that no section of trail be opened for public use unless and until a management plan, prepared in concert with landowners and native Hawaiians along the segment, is completed and maintenance and protection of cultural and natural resources provided for. Cultural resources and traditional cultural properties would be identified and ethnographies prepared. Native Hawaiian cultural experts would advise on planning and managing the trail. Native Hawaiians, landowners, communities along the way, trail users, and others would be involved in planning for and managing the trail. Natural resources (which are often perceived as cultural resources to Native Hawaiians) would be inventoried and measures taken to protect archeological sites and threatened and endangered species before any portion of the trail is promoted for public use. Anchialine ponds would be identified and inventoried and a range of protection measures considered before encouraging trail use near them. Effects of trail use on cultural and natural resources would be monitored as feasible and appropriate.

Public Review: The DEIS was developed after public scoping through five public meetings, numerous agency and organization meetings, distribution of meeting summaries, and a newsletter series. Alternatives were developed through a workshop process, and an initial opportunity for public contributions was afforded through a newsletter with response form. The DEIS was issued in late July 1997 and the public review period ended on October 17, 1997. Also during this period the NPS conducted four public meetings and received 67 written comments during the 60-day public review period. The FEIS (noticed in the Federal Register on April 29, 1998) included responses to 39 letters from agencies, landowners, organizations, and individuals who raised specific issues. In general, the landowners who commented on the DEIS preferred the No Action Alternative, and the organizations and individuals who responded preferred the National Historic Trail (continuous) Alternative. No significant new issues were raised which would require the development of a new alternative, although the FEIS clarified the impacts to land use section, the intent of *Alternative B*, and revised the cost estimate. The 30-day no-action period began on April 3, 1998 and ended on May 4, 1998.

During the no-action period, two typographic corrections were noted (and are incorporated by reference):

1. On page 39, the abbreviation for MLCB is reversed several times.
2. On page 49, the name "Kekaha Kai" is misspelled.

Also during this period several comments were received. These communications neither surfaced new issues or concerns, nor provided information to add to the FEIS. However, since the FEIS provided the first public opportunity to review the NPS recommendation, all

Record of Decision

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Ala Kahakai National Trail Study

The Hawaii Leeward Planning Conference restated concerns noted in the FEIS. Oceaniside 1250 wrote three letters: one commented on other letters included in the FEIS; the other two restated concerns noted in the FEIS.

Conclusion: The National Trail Study, Draft and Final EIS, and Record of Decision will be transmitted to Congress by the Secretary of the Interior. The decision on whether to designate the Ala Kahakai as a National Historic Trail will be made by Congress.

Signed:


John J. Reynolds, Regional Director
Pacific West

6/15/98
Date

Comments received are summarized below to ensure that Congress and interested parties are fully apprised of all views. Moreover, all written communications received during the entire environmental compliance process are on file in the NPS's Pacific Great Basin Support Office in San Francisco.

Comments supporting the recommendation:
The U.S. Fish and Wildlife Service supported the recommendation and expressed interest in working with the NPS, the state, and all cooperators on management strategies to protect endangered plants and animals, and their habitats, if the trail is designated a National Historic Trail.

A Hawaii County Council member supported of the recommendation; his letter is attached to the Record of Decision at the request of Senator Daniel Akaka.

Ē Mau Nā Ala Hele, a non-profit trails support group, supported the recommendation and emphasized the need for local control and management.

Wailea Property Owners' Association generally supported the recommendation, but noted concerns for litter, waste, and crime, and requested that the trail be non-motorized.

Several individuals wrote, e-mailed, or telephoned their support for the recommendation.

Comments supporting other options:
The President of Ka Ohana O KaLae, a Puna District kinship group, rejected all alternatives because the coastal area "must fall under jurisdiction of the Native Hawaiian tenant living in that particular portion of ahupuaa."

Waikoloa Resort supported *Alternative A* and indicated it would not cooperate with Federal designation of the trail.

Kona Kohala Resort Association supported *Alternative A* and expressed concern about increased landowner burden under the recommended alternative.

Chalon International continued to question not including the entire "Condy report" in the FEIS.

Kamehameha Schools Bernice Pauahi Bishop Estate reiterated their belief that the Ala Kahakai is a collection of fragmented remnants and thus opposed designation of a National Trail along the Hawaii coastline.

Skycliff Investment, L.L.C. questioned the listing in Appendix G of 0.89 miles of the Ala Kahakai passing over their property. As new owners they did not have the opportunity to comment on the DEIS. They cautioned avoidance of regulatory taking without compensation and asked to be consulted on any developments related to the Ala Kahakai Study.

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Ala Kahakai National Trail Study

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Ala Kahakai National Trail Study

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United States Senate

WASHINGTON, DC 20510-1103

April 24, 1998

Superintendent
Pacific Great Basin Support Office
National Park Service
600 Harrison Street, Suite 600
San Francisco, CA 94107

Dear Superintendent:

Please include the enclosed remarks of J. Curtis Tyler III, Council Member, County Council of Hawaii, as part of the public comment record on the National Trail Study and Final Environmental Impact Statement for the Ala Kahakai.

Thank you for your attention to this matter.

Aloha pumehana,

Daniel K. Akaka

DANIEL K. AKAKA
U.S. Senator

Enclosure



COUNTY COUNCIL

County of Hawaii
Hawaii County Building
25 Aupuni Street
Hilo, Hawaii 96720

CURTIS TYLER, III
Councilmember

Tel: (808) 961-8273
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April 13, 1998

Daniel K. Akaka
United States Senate
720 Hart Senate Office Bldg.
Washington, D.C. 20510-1103

RE: FINAL EIS, ALA KAHAKAI, HAWAII ISLAND

Dear Senator Akaka:

I have reviewed a copy of the above referenced study and wish to submit the following brief comments:

As a Native Hawaiian and an elected public official, I encourage the Congress and National Park Service to include Ala Kahakai in the National Trail System. I believe that, as both a traditional cultural and public resource, this trail is totally unique and of enormous significance and value. Therefore, its conservation and protection are extremely important, not only to present and future generations of Native Hawaiians, but to the general public as well.

I believe that inclusion of this trail will afford greater opportunities to attract the resources necessary to conserve and protect it. This is especially important in light of the fiscal and other constraints now being experienced in the State of Hawaii.

I am aware that some feel inclusion may further compromise this special asset, but I am confident that, as long as the trail remains a part of the public trust, and there is a willingness and open mechanism to consider and implement the perspectives and wishes of local residents, including Native Hawaiians, the end result will be superior to leaving this matter only in the hands of state and local governments.

Finally, I wish to commend you and all those who have worked on this project. In my opinion, the work has been done in a sensitive and thorough manner, and demonstrates a true commitment on your part to seek and ensure that the life of this land will continue to be perpetuated in that which is pono.

Thank you for the opportunity to comment on this important matter. Please do not hesitate to contact me if I can be of further assistance.

Sincerely,

J. Curtis Tyler, III
J. Curtis Tyler, III
Council Member, District 8

PRINTED ON RECYCLED PAPER

Appendix I

Water Quality Monitoring Report - Maniniowali

EXECUTIVE SUMMARY

The Manini'owali project site is just south of the ongoing development at Kuloa and extends for more than 1.1 miles south along the coast. Unlike the development at Kuloa which occurs adjacent to the shoreline, the Manini'owali development is situated more than 1,000 feet inland of the shoreline. The lands between the Manini'owali project site and the shore are to become part of the Kona Coast State Park system which will stretch uninterrupted from Keahole Point on the south to Kuloa on the north. The Manini'owali development is residential and will not have a golf course. This study is being undertaken to insure that the development will not impact the quality of the ground, anchialine pool and near shore marine waters fronting the project site.

This report provides the second quarter baseline data on the status of water quality and anchialine resources in support of the Manini'owali development. There are two anchialine pools on the state park lands below the Manini'owali project site; one small 0.75 x 1 m recently discovered pool (containing water on high tides only) is located at Kakapa Bay. A second, well-known anchialine pool (located more than 0.6 km south of Kakapa Bay) is situated about 50 m inland of the sandy beach at Kua Bay. Alien fishes (supplies) have been released sometime in the past into the Kua Bay pool driving important anchialine species away from this pool. On higher tides when water is present, the small Kakapa Bay pond has the usual suite of anchialine species present.

Twenty three water samples were collected in the second quarter December 2001 baseline survey. Two of these samples were from the two above anchialine pools and the remaining 21 samples were collected along three onshore-offshore transects established in the ocean to measure the concentration of parameters entering the sea via subterranean groundwater. These three onshore-offshore transects were established at the heads of three bays where the presence of groundwater would be most evident close to shore. These bays are: Kakapa Bay near the northern boundary of the project site, Kua Bay near the middle part of the project site and along the north edge of Kahoiawa Bay at the southern boundary of the project site.

The Department of Health has recently instituted regional water quality standards for the Kona coast. These standards apply to marine samples and compliance is related to local salinity for some parameters. Three parameters (total dissolved nitrogen, total dissolved phosphorus and turbidity) exceeded the regional water quality standards in the December 2001 survey. In the previous (October 2001) survey, ammonia nitrogen, total dissolved nitrogen and phosphorus exceeded the regional standards. This lack of compliance is not unexpected; prior to the development at Kuloa (the adjacent parcel to the north of Manini'owali), a ten-year water quality baseline monitoring found ammonia nitrogen, turbidity, nitrate nitrogen, orthophosphorus, total dissolved phosphorus and chlorophyll-*a* out of compliance.

The marine waters show little salinity depression along the shoreline fronting the Manini'owali parcel relative to many other Kona coast sites. The higher above-tide salinities suggests that groundwater input is relatively low along this portion of the coast. This low flow suggests that there will be little opportunity for possible pollutants that could be generated by the Manini'owali development of reaching and/or being detected at the shoreline. In addition, the broad buffer between the project site and the shoreline (minimum 1,000 feet) should minimize the opportunity for materials of ever reaching the sea.

Also collected in this second quarter survey were four sediment samples for pesticide analyzers. These analyzers were carried out for compounds found in a number of herbicides and insecticides commonly used on modern golf courses or in residential settings. Samples were collected in the ocean fronting the Manini'owali project site and in the Kua Bay anchialine pool as well as from a control site offshore of Makalaweena just south of the project site. None of the 28 compounds were found in any of the samples at the limits of detection used in this study.

The quality of the marine waters fronting Manini'owali from this first baseline survey are typical of well-flushed, West Hawaii sites. The fact that some parameters are out of compliance with the standards is not unexpected in light of the lack of compliance noted at other undeveloped (Kealahou Bay) and formerly undeveloped sites (Hokuli'a and Kuloa) along the Kona coast.

SECOND QUARTERLY BASELINE PERIOD

WATER QUALITY MONITORING REPORT

IN SUPPORT OF THE DEVELOPMENT AT

MANINI'OWALI, NORTH KONA - DECEMBER 2001

Prepared For:

WB Kuloa Resorts, LLC
P.O. Box 5349
Kailua-Kona, Hawaii 96745

By:

Richard Brock, Ph.D.
Environmental Assessment Co.
1820 Kiki Street
Honolulu, Hawaii 96821

April 2002
EAC Report No. 2002-11A

INTRODUCTION

The Manini'owali project site is just south of the ongoing development at Kukio in the North Kona District extending for more than 1.1 miles along the coast. Unlike the development at Kukio which occurs adjacent to the shoreline, the Manini'owali development is to be situated at distances well inland (more than 1,000 feet inland) of the shoreline. The lands between the Manini'owali project site and the shoreline are to become part of the Kona Coast State Park system which will stretch uninterrupted from Keshole Point on the south to Kukio on the north. Most West Hawaii coastal developments incorporate a golf course as part of the project but the Manini'owali development will be of a residential nature.

In granting the zoning for this development which formerly included a golf course, the State Land Use Commission imposed a condition that this project have a "water quality monitoring program." Despite the present development not having a golf course, the developer requested that a water quality monitoring program be implemented to insure that the integrity of the ground and near shore marine waters is not compromised. This document presents the results of the second quarterly baseline information on the condition and quality of those waters and anchialine pools along the coastline below the project site prior to commencement of construction. In this quarterly survey marine sediment samples were sampled for the presence of a number of pesticides commonly used in residential/golf course developments. Collectively, these data will be used to assess any changes that may occur in water quality or anchialine resources as the project moves forward through the construction process.

METHODS

Sample Site Locations

The Department of Health recently enacted new regional water quality standards for the West Hawaii coast. These standards utilize a regression approach for marine sample sites where salinity is 32 parts per thousand (ppt) or less. This regression approach is used in determining the standard for nitrate+nitrite nitrogen, total dissolved nitrogen, orthophosphorus and total dissolved phosphorus. Standards for other parameters are based on the 95% confidence interval derived from regression calculations performed by the Department of Health using water quality data collected from "undisturbed sites" along the West Hawaii coast. There are no standards set for anchialine pools or coastal brackish wells (used for irrigation purposes), thus the water collected for Manini'owali may be considered in two groups: ocean samples where the regional standards apply and "other" samples that include all other sites sampled away from the ocean (here anchialine pools).

The regional criteria require that sampling in the marine environment be conducted along an onshore to offshore "transect." These transects are to be established at point along the shoreline where there is greater likelihood of groundwater escaping into the sea. Along the Kona coast,

these areas are usually found along the heads of bays rather than offshore of points (escaping groundwater follows the line of least resistance in its flow to the sea). Three small bays are found along the section of coast fronting the Manini'owali project; these are Kakapa Bay near the northern boundary of the project site, Kua Bay near the middle portion of the coast fronting the project site and along the northern edge of Kahoiawa Bay located at the southern extreme of the project site (Figure 1). Along each transect seven samples were collected. Six of the seven samples are collected at the surface (20 cm below the surface) and one sample is taken at depth. The surface samples are collected at the shoreline, 50 m, 100 m, 200 m, 300 m, and 500 m offshore. Below the sample collected at 50 m offshore, a second sample is collected at depth (approximately 1 m above the bottom).

An inspection of the coastline was made in the area from the south boundary of the Kukio project site south to Kahoiawa Bay in search of anchialine pools. Maciolek and Brock (1974) noted one anchialine pool inland of Kua Bay but other than this, a review of other literature failed to note any other anchialine resources along this 1.1 mile section of coast. Our inspection of the coast did find a second small anchialine pool inland of Kakapa Bay. Water samples are collected from these two anchialine pools as part of the monitoring protocol.

In the second quarterly survey, four sediment samples were collected for possible presence of pesticides (herbicides and insecticides). This coastline is not developed and it is difficult to ascertain in advance what pesticides could be used in the future and make their way to the ocean. The approach used here was to make a search for elemental arsenic which is the active ingredient of many herbicides, glyphosate (the active ingredient of the herbicide Round Up) and a pesticide screen for chlorinated pesticides (26 different compounds). Sediments were collected from the nearshore waters of Kakapa Bay (3.5 m deep) and Kua Bay (4 m deep) fronting the project site, and from the anchialine pool at Kua Bay (1 m deep) as well as a marine control from the waters fronting Makalawena (4.5 m deep) just south of the Manini'owali project site.

Laboratory Methods

Water quality constituents that are evaluated include the specific criteria as designated in Chapter 11-54, Section 06 State of Hawaii, Department of Health Water Quality Standards which were recently amended (July 2000) for West Hawaii coastal waters. The criteria include ammonia nitrogen (NH₃), nitrate + nitrite nitrogen (NO₃ + NO₂, hereafter referred to as nitrate or NO₃), total dissolved nitrogen (TDN), orthophosphorus (PO₄), total dissolved phosphorus (TDP), chlorophyll-*a* (chl-*a*), turbidity, as well as the nonspecific criteria of temperature, pH, and salinity. In addition, dissolved silica (Si) is measured due to its usefulness as a conservative groundwater tracer. Dissolved organic nitrogen (DON) is calculated as the difference between total dissolved nitrogen from ammonia nitrogen plus nitrate nitrogen and dissolved organic phosphorus (DOP) is calculated as the difference between orthophosphorus from total dissolved phosphorus.

Water samples are collected by opening 500 ml polyethylene bottles at the desired depth. These bottles are all triple rinsed using the sample water prior to sample collection. Subsamples for nutrient analyses are filtered through glass fiber filters and immediately placed in 125 ml

acid-washed, triple-rinsed polyethylene bottles and stored on ice until returned to Honolulu for later analysis. Analyses for ammonia nitrogen, orthophosphate and nitrate are performed using a Technicon autoanalyzer following standard methods for seawater analysis (Strickland and Parsons 1972, Grasshoff 1983). Total dissolved nitrogen and total dissolved phosphorus are similarly analyzed following digestion (Standard Methods 1985). Both TDN and TDP are run on non-filtered samples handled in the same manner as those above.

Turbidity samples are collected as unfiltered water and stored on ice in 125 ml polyethylene bottles until measurements are made. Turbidity is measured on a Monitek Laboratory Nephelometer following the procedures as described in Standard Methods (1985). The instrument is calibrated as specified by the Environmental Protection Agency with standard formazin solutions prior to and after sample measurements. Prior to measurement, samples are thoroughly mixed to disperse particulate materials and measured in duplicate when all air bubbles disappear.

Chlorophyll-*a* samples are collected by filtering known volumes of sample water through glass microfibre filters; filters are frozen until laboratory analyses are carried out. Laboratory procedures follow Standard Methods (1985) and pigments are extracted and determined fluorometrically. Salinity samples are collected in 125 ml polyethylene bottles in the field, filled completely and capped tightly until measurement by AGE salinometer in the laboratory. In the field oxygen is measured using an YSI Model 58 meter, pH is determined using a Hanna millivolt meter and temperature is measured using a laboratory grade thermometer.

Sediment samples for pesticide analyses were collected in one liter pre-cleaned amber glass jars with teflon-lined lids, held on ice and shipped within 12 hours to an EPA-approved laboratory for analyses. All analyses followed standard EPA methods.

Anchialine biota is quantitatively assessed in pools by use of small 0.1 m² quadrats which are placed in pools for use in making quantitative counts of motile species. In making these counts, only native species are enumerated; no attempt is made to census alien species such as fishes.

All methods used in the Manini'owali monitoring program comply with and follow those as outlined in the "West Hawaii Coastal Monitoring Program Monitoring Protocol Guidelines" as formulated and prepared by the West Hawaii Coastal Monitoring Task Force (May 1992, 30p.). Statistical and other data procedures are described where used in the text. In general to avoid assumptions of normality in the data, non-parametric methods are used (Siegel 1956, SAS Institute, Inc. 1985).

RESULTS AND DISCUSSION

There have been two quarterly baseline surveys carried out to date. The first was completed on 25 October 2001 and the second on 10 December 2001. In total, 21 marine sites were sampled and two anchialine pools in both surveys. All marine samples were taken at the surface (20 cm below the air-water interface) except for a single sample collected 50 m offshore at depth

each of the three transects (sample numbers 42, 49 and 56). Two samples (numbers 61 - Kua and 62 - Kakapa Bay) were collected in the anchialine pools. The water quality results for 10 December 2001 survey are presented in Table 1 and are discussed below. The results of a first (25 October 2001) survey are given in Appendix 1 for comparative purposes.

1. Compliance with Department of Health Criteria

The Hawaii State Department of Health (DOH) has developed specific criteria for different uses of water in the state (e.g., as for harbors, streams and marine waters). Up to July 2000, waters fronting Manini'owali were classed as "Open Coastal Waters" and are to remain "...in their natural pristine state with an absolute minimum of pollution or alteration of water quality from any human-caused source or action" (Hawaii Administrative Rules, Chapter 11-54-01). The most stringent standards have been set for open coastal waters. Since July 2000, new standards have been imposed for the West Hawaii coastline; these standards utilize a regression approach for marine sample sites where salinity is 32 parts per thousand (ppt) or less. This regression approach is used in determining the standard for nitrate-nitrite nitrogen, total dissolved nitrogen, orthophosphorus and total dissolved phosphorus. As noted above, there are standards set for anchialine pools or coastal brackish wells (used for irrigation purposes), thus water collected at Manini'owali may be considered in two groups: ocean samples where the standards apply and "other" samples that include all other sites away from the ocean. The applicable standards to the December 2001 data are summarized in Table 2.

The DOH document establishing the West Hawaii regional criteria has broken the criteria down into three tiers as given in Table 2. The standards for parameters that do not display a distinct onshore-offshore gradient of concentration utilize a geometric mean "not to exceed" rule. For the remaining parameters, two situations apply: if there is no substantial groundwater flow (as evidenced by a salinity depression near the shore), a geometric mean "not to exceed" rule also applies (Table 2). Where groundwater flow is evident and depressing salinity to 32 ppt or less, a straight-line mixing relationship is specified and the water quality criterion is the slope of this regression line based on surface-collected samples taken at specific points along an onshore-offshore transect.

Application of these criteria to marine samples requires that sample sites be located in a transect commencing at the shoreline and sampling at various distances offshore. The regional standards as given in the DOH Administrative Rules require that only samples from the surface (i.e., within a meter of the surface) be used in making the analysis. Thus marine samples that do not conform to this sampling layout with measured salinities of 32 ppt or less at one of the sites and/or are collected at depth cannot be included in this analysis.

There are three transects established to monitor the waters fronting Manini'owali; inspection of the salinity data in Table 1 shows that there were no surface sites where salinity was depressed below 32 ppt thus the regional water quality standards require that sample sites with appreciable salinity depression (or gradient) utilize single value "not to exceed" criteria as given in Table 2. Referring to the "not to exceed" criteria in Table 2, the geometric means as

determined by combining all marine sites are out of compliance for total dissolved nitrogen, total dissolved phosphorus and turbidity in the December 2001 baseline data set. In the first (October 2001) survey, the waters fronting the Manini'owali project site did not meet state standards for ammonia nitrogen, total dissolved nitrogen and total dissolved phosphorus. It is not surprising that some parameters do not meet regional standards despite the fact that the adjacent Manini'owali lands are not developed. Water quality studies carried out the adjacent property just to the north (Kukio) found over a ten-year baseline period that the geometric means for marine waters were out of compliance for ammonia nitrogen, turbidity, nitrate nitrogen, orthophosphorus, total dissolved phosphorus and chlorophyll-*a*. This lack of compliance spans the period from August 1990 - November 1999 (Brock 2000a) suggesting that the "baseline" noncompliance at Manini'owali is not to be unexpected. Indeed, many of the grand geometric means from the Kukio baseline period are greater than those calculated in the Manini'owali dataset (see Table 3).

2. Observations of Anchialine Pool Biota

There are two known anchialine pools along the coast fronting the Manini'owali project site. Anchialine pools are land-locked bodies of water that may be characterized as not having surface connections to the sea, yet have measurable salinities and display damped tidal fluctuations. Naturally occurring anchialine pools are restricted to highly porous substrates such as recent lavas or limestone adjacent to the sea. These unique habitats have been described from a number of widely dispersed tropical localities; in Hawaii the greatest number are found along the West Hawaii coastline and in recent years have been the focus of attention with respect to coastal development.

Anchialine pools harbor a distinctive assemblage of organisms, some of which are found nowhere else. Anchialine pond organisms fall into two classes, i.e., epigeal and hypogeal species. The epigeal fauna is comprised of species that require the well-illuminated (sunlit) part of the anchialine system. Most of these species are found in other Hawaiian habitats albeit individual from anchialine systems frequently show ecotype (morphologic) variations. The hypogeal organisms occur not only in the illuminated part of the system but also in the interconnected water table below. These species are primarily deep-sea crustaceans, some of which are known only from the anchialine biotope.

Species characteristic of Hawaiian anchialine pools include crustaceans (shrimps and amphipods), fishes, mollusk, a hydroid, sponges, polychaetes, tunicates, aquatic insects, algae and aquatic macrophytes. Most striking are a number of red-pigmented caridean shrimp species and the most abundant of these is the opae'ula (*Halocaridina rubra*).

Two anchialine pools are known along the coast below the Manini'owali project site. The larger of the two is located at Kua Bay. Since the completion of Queen Kaahumanu Highway more than 20 years ago, there has been an unimproved access road from the highway to the sand beach at Kua Bay. In 1972 Maciolek and Brock (1974) found the anchialine pool at Kua Bay to be biologically undisturbed with the usual complement of anchialine species present. Today,

this pool has been colonized by non-native alien fishes (guppies) as ascertained by the Manini'owali surveys (Table 4) and many native anchialine species are not present. The Kua Bay anchialine pool is more than 50 m inland of the sea and behind a relatively large natural sand berm (site 61). It is surmised that the only way that these alien fishes colonized this pool is by intentional release into the pond. This release probably occurred sometime after the development of vehicle access to the site.

Once introduced to anchialine system, alien fish are able to complete their life cycle and become a permanent feature of the system (Brock 1985, Bailey-Brock and Brock 1993). Alien fishes often preclude the native opae'ula which is a keystone species in the maintenance of the anchialine system. With the elimination of key species, degradation of the anchialine system occurs. Recent studies by this author have determined that outside of the Waikoloa Anchialine Pond Preserve which is actively managed, only about 10 percent of the West Hawaii Anchialine resource remains free of alien fishes; this translates into about 70 pools left in a natural state. Many of the anchialine pools that remain free of alien fishes are often just a single small pool in a complex of pools that has otherwise been overrun by alien fishes. Under these circumstances, physical isolation is usually the only reason why alien fishes have not yet colonized this last remaining pool. In these cases, the isolation may only be temporary for the next spring high tides may allow colonization to occur. The continued spread of alien species that apparently impact the ecological balance and succession in anchialine pools provides a bleak outlook for the perpetuation of this unique resource in Hawaii.

The small anchialine pool at Kakapa Bay (site 62) is located about 40 m inland of the sea and contains water only during higher tides. At a maximum, this pool has a water surface area of about 1 square meter and a maximum depth of 10 cm. When water is present native opae'ula (*Halocaridina rubra*) are found at densities of ~30 to 35 shrimp/0.1 m² (Table 4). It should be noted that in the immediate area surrounding this pool are a number of ancient Hawaiian cultural features (house sites, petroglyphs, stone grinding areas, etc.) which suggests that when the State of Hawaii develops this portion of the coastal park, the area should receive some level of protection.

3. Analysis of Sediments for Pesticides

None of the four sediment samples collected in this survey for pesticide analysis noted the presence of these materials at the limits of detection used in this study (Table 5). These results are not surprising in that none of the adjacent lands surrounding the sample sites have undergone any development. However, most marine and anchialine pool sediments sampled by this author over the last fifteen years along the West Hawaii coast have had a low concentration of arsenic which is naturally occurring in volcanic soils and sandy soils (Kabata-Pendais and Pendais 1984). Indeed the sediments in anchialine pools at Makalawena have been sampled annually for more than a decade and arsenic has always been present at low concentrations (Brock 2001). Despite its absence, further sampling of marine sediments in the same areas would probably note the presence of this material.

3. Comments on the Quality of Ground and Near Shore Waters at Manini'owali

The marine water samples collected in the two baseline surveys show little salinity depression in samples collected along the shoreline (sample nos. 40, 47 and 54) relative to many other Kona coast sites. The higher shoreline salinities suggests that groundwater input is relatively low along this portion of the coast. Both to the north (Kukio) and south (Makalawena) of Manini'owali the groundwater efflux to the sea is greater. The relatively low groundwater flow suggests that there will be little opportunity for possible pollutants that could be generated by the Manini'owali development of reaching and/or being detected at the shoreline. The relatively broad buffer between the project site and the shoreline (minimum of 1,000 feet) should minimize the opportunity for materials of ever reaching the sea.

It remains to be seen how the State of Hawaii will develop the coastal park in the buffer area between the Manini'owali project and the shoreline. If the park development is done with appropriate design (i.e., non-leaching toilet facilities), grounds development requiring little or no irrigation, fertilization and pest control, coupled with good user management (i.e., policing), the park and its use should not have any impact to ground or near shore marine water chemistry.

The quality of the marine waters fronting Manini'owali from these baseline surveys are typical of well-flushed, West Hawaii sites. The fact that some parameters are out of compliance with the new regional West Hawaii regional water quality standards is not unexpected in light of the lack of compliance noted at many other undeveloped (Kealakua Bay - Brock 2000b, 2001) and formerly undeveloped sites (Hokuli'a - Brock 1999, Kukio - Brock 2000a) along the Kona coast.

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TABLE 1. Summary of the water quality parameters as measured at 23 sites for the Manini'owali project on 10 December 2001. Two samples are from anchialine pools and 21 from the adjacent ocean. For ocean samples the underlined geometric means exceed the regional Kona coast Department of Health water quality standards applied to nitrate nitrogen, ammonia nitrogen, total dissolved nitrogen, orthophosphorus, total dissolved phosphorus, chlorophyll-*a* and turbidity for surface samples. All values are in $\mu\text{g/l}$ unless otherwise indicated.

Site No.	Nitrate N	Ammonia N	TDN	Ortho P	TDP	Si	DON	DOP
Marine Samples								
40	13.72	2.80	212.80	4.34	15.81	185.64	186.28	11.47
41	30.80	3.38	243.18	4.34	18.43	404.88	209.02	12.09
42	6.58	1.68	190.40	4.03	15.50	109.48	182.14	11.47
43	1.82	0.84	164.22	3.72	15.19	84.84	161.56	11.47
44	1.82	0.42	164.02	4.03	16.12	84.26	157.78	12.09
45	1.26	0.28	178.22	3.41	14.88	75.60	178.68	11.47
46	1.26	0.42	175.84	3.41	14.88	75.04	174.18	11.47
47	8.24	1.68	249.20	4.34	16.74	320.88	238.28	12.40
48	6.44	1.12	177.66	4.03	14.26	194.80	170.10	10.23
49	4.08	1.12	140.00	3.72	13.33	210.00	134.82	9.61
50	2.10	0.98	103.60	3.72	11.18	80.92	100.52	7.44
51	1.54	0.70	102.80	3.72	11.16	77.84	100.68	7.44
52	1.66	0.42	109.08	3.72	11.16	77.28	106.96	7.44
53	1.68	0.42	115.06	3.41	11.47	76.72	112.98	8.06
54	3.64	1.68	120.54	4.03	11.47	105.58	115.22	7.44
55	2.38	1.12	127.26	3.72	11.47	78.40	123.76	7.75
56	2.38	1.12	116.34	3.72	11.47	83.16	112.84	7.75
57	1.96	0.56	91.42	3.41	10.23	71.98	88.90	8.62
58	1.96	0.56	194.60	3.41	11.47	68.88	192.08	8.06
59	2.10	0.56	175.84	3.41	11.47	68.32	173.18	8.06
60	2.10	0.56	188.58	3.41	11.47	67.76	185.92	8.06
Geometric Mean	3.01	0.85	152.53	3.75	13.03	104.62	147.42	9.23
Anchialine Pool Samples								
61	117.35	3633.42	42.82	438.65	23716.76	2657.00	394.73	
62	3214.94	4828.88	57.30	183.13	24490.37	1597.93	135.83	

TABLE 1. Continued.

Site No.	Turbidity (NTU)	Chl- <i>a</i>	Salinity (‰)	Oxygen (%)	Temp. (°C)	pH
Marine Samples						
40	0.17	0.235	34.905	101	24.1	8.15
41	0.25	0.225	34.651	102	24.3	8.11
42	0.18	0.182	35.019	101	24.3	8.16
43	0.15	0.228	35.036	102	24.4	8.18
44	0.10	0.241	35.041	101	24.6	8.19
45	0.15	0.238	35.051	102	24.6	8.20
46	0.09	0.228	35.045	103	24.7	8.20
47	0.20	0.310	34.771	102	24.2	8.13
48	0.09	0.219	34.929	102	24.4	8.18
49	0.12	0.217	34.998	101	24.4	8.18
50	0.10	0.200	35.040	102	24.6	8.18
51	0.08	0.228	35.044	101	24.6	8.19
52	0.10	0.274	35.038	103	24.8	8.20
53	0.08	0.247	35.048	103	24.5	8.18
54	0.11	0.218	35.011	103	24.5	8.18
55	0.10	0.210	35.038	102	24.3	8.19
56	0.07	0.221	35.043	101	24.3	8.19
57	0.14	0.225	35.043	103	24.6	8.20
58	0.06	0.227	35.050	100	24.5	8.18
59	0.08	0.227	35.049	103	24.5	8.20
60	0.05	0.218	35.053	103	24.3	8.20
Geometric Means	0.11	0.228	34.995	102	24.4	8.18
Anchialine Pool Samples						
61	8.00	98.170	6.663	69	24.0	7.82
62	1.13	0.330	4.275	83	28.0	8.22

TABLE 2. Three tiers of water quality criteria developed by the Department of Health for the Kona or West Hawaii coast. Also included are the regional criteria for three parameters under all salinity regimes as well as those for sites with no significant groundwater discharge as was the case in the December 2001 survey of the marine waters fronting Manini'owali.

All Salinity Regimes:	Single Value "Not To Exceed" Criterion For: Ammonia Nitrogen - Proposed Criterion = 2.5 ug/l Chlorophyll-a - Proposed Criterion = 0.3 ug/l Turbidity - Proposed Criterion = 0.1 NTU.
No Salinity Gradient Observed:	Single Value "Not To Exceed" Criterion For: Total Dissolved Nitrogen - Proposed Criterion = 100.0 ug/l Total Dissolved Phosphorus - Proposed Criterion = 12.5 ug/l Nitrate+Nitrite Nitrogen - Proposed Criterion = 4.5 ug/l Orthophosphorus - Proposed Criterion = 5.0 ug/l
Salinity Gradient Observed:	Regression Coefficient (Slope) Criterion For: Total Dissolved Nitrogen Total Dissolved Phosphorus Nitrate+Nitrite Nitrogen Orthophosphorus

TABLE 3. Summary of the geometric means for water quality parameters (ug/l unless otherwise noted) as measured at marine stations fronting the Kūio development during the 111-month baseline study period (August 1990 through November 1999). Underlined values exceed the Department of Health regional standards.

Site No.	No. Samples	Nitrate N	Ammonia N	TDN	Ortho P	TDP	Si	DON	DOP
3	17	<u>31.13</u>	<u>9.08</u>	<u>147.93</u>	<u>7.77</u>	<u>16.31</u>	<u>592.05</u>	<u>70.02</u>	<u>7.42</u>
4	17	<u>9.99</u>	<u>3.67</u>	<u>92.06</u>	<u>4.04</u>	<u>12.01</u>	<u>185.05</u>	<u>70.32</u>	<u>7.79</u>
5	17	<u>6.55</u>	<u>3.92</u>	<u>98.68</u>	<u>3.70</u>	<u>12.24</u>	<u>182.42</u>	<u>84.15</u>	<u>8.38</u>
6	17	<u>4.25</u>	<u>3.71</u>	<u>83.39</u>	<u>3.64</u>	<u>10.66</u>	<u>108.82</u>	<u>82.34</u>	<u>6.84</u>
14	35	<u>68.23</u>	<u>12.69</u>	<u>170.11</u>	<u>9.46</u>	<u>14.50</u>	<u>1214.79</u>	<u>84.78</u>	<u>5.67</u>
15	34	<u>19.27</u>	<u>7.39</u>	<u>114.40</u>	<u>5.81</u>	<u>12.09</u>	<u>395.32</u>	<u>77.50</u>	<u>6.02</u>
16	20	<u>8.05</u>	<u>5.53</u>	<u>101.32</u>	<u>4.11</u>	<u>11.23</u>	<u>211.43</u>	<u>77.80</u>	<u>6.48</u>
17	17	<u>3.86</u>	<u>3.69</u>	<u>88.75</u>	<u>3.31</u>	<u>10.70</u>	<u>127.38</u>	<u>78.15</u>	<u>6.98</u>
18	17	<u>236.11</u>	<u>25.49</u>	<u>399.33</u>	<u>15.47</u>	<u>22.57</u>	<u>3254.21</u>	<u>77.29</u>	<u>4.76</u>
19	11	<u>66.60</u>	<u>11.36</u>	<u>223.43</u>	<u>7.45</u>	<u>15.51</u>	<u>959.04</u>	<u>104.22</u>	<u>7.07</u>
Grand Geometric Means									
		<u>17.14</u>	<u>7.03</u>	<u>132.68</u>	<u>5.32</u>	<u>14.18</u>	<u>372.39</u>	<u>79.15</u>	<u>7.38</u>

Site No.	Turbidity (NTU)	Chl-a	Salinity (‰)	Oxygen (%)	Temp. (°C)	pH
3	<u>0.16</u>	<u>0.365</u>	<u>32.947</u>	<u>103</u>	<u>26.0</u>	<u>8.03</u>
4	<u>0.10</u>	<u>0.172</u>	<u>34.144</u>	<u>102</u>	<u>26.0</u>	<u>8.11</u>
5	<u>0.11</u>	<u>0.140</u>	<u>34.187</u>	<u>103</u>	<u>26.0</u>	<u>8.11</u>
6	<u>0.10</u>	<u>0.144</u>	<u>34.281</u>	<u>102</u>	<u>26.0</u>	<u>8.13</u>
14	<u>0.17</u>	<u>0.325</u>	<u>32.733</u>	<u>103</u>	<u>26.3</u>	<u>8.16</u>
15	<u>0.13</u>	<u>0.180</u>	<u>33.867</u>	<u>102</u>	<u>26.3</u>	<u>8.14</u>
16	<u>0.11</u>	<u>0.135</u>	<u>34.126</u>	<u>102</u>	<u>26.6</u>	<u>8.13</u>
17	<u>0.10</u>	<u>0.138</u>	<u>34.258</u>	<u>102</u>	<u>26.5</u>	<u>8.15</u>
18	<u>0.44</u>	<u>0.870</u>	<u>29.017</u>	<u>102</u>	<u>27.0</u>	<u>8.09</u>
19	<u>0.17</u>	<u>0.415</u>	<u>31.578</u>	<u>103</u>	<u>26.4</u>	<u>8.09</u>
Grand Geometric Means						
	<u>0.14</u>	<u>0.220</u>	<u>33.120</u>	<u>102</u>	<u>26.2</u>	<u>8.11</u>

TABLE 4. Summary of the quadrat counts for native shrimp in anchialine pools located at Kua Bay (site 61) and Kakapa Bay (site 62) makai of the Manini'owali project site, North Kona, Hawaii. Note that pond numbers correspond to sample sites as given in Figure 1.

Pond No.	Species	Oci01	Dec01
61	Palaeomon debilis Guppies	8/m ² Abundant	5/m ² Abundant
62	H. rubra	320.1/m ²	350.1/m ²

TABLE 5. Results of pesticide analyses of four marine sediment samples from Kakapa Bay (sample 1), Kua Bay (sample 2), the Kua Bay anchialine pool (sample 3) and a control site offshore of Makalawena just south of the Manini'owali project site. The marine sediments were collected from water depths ranging from 3.5 to 4.5 m; the sediment from the Kua Bay anchialine pool was from a water depth of 1 m. Note: ND = not detected, PQL is the practical quantitation limit. Table continued on next three pages.

Sample Site	Parameter	Prep/Test Method	Result	Unit	PQL
Kakapa Bay Marine Sediment	Arsenic	EPA 3050B/6010B	ND	mg/kg	1
	Glyphosate	EPA 3050/547	ND	mg/kg	2
	Alpha-BHC	EPA3550B/8081A	ND	ug/kg	2
	Beta-BHC	"	ND	ug/kg	2
	Gamma-BHC	"	ND	ug/kg	2
	Delta-BHC	"	ND	ug/kg	2
	Heptachlor	"	ND	ug/kg	2
	Heptachlor epoxide	"	ND	ug/kg	2
	Aldrin	"	ND	ug/kg	2
	Dieldrin	"	ND	ug/kg	4
	Endrin	"	ND	ug/kg	3
	Endosulfan I	"	ND	ug/kg	5
	Endosulfan II	"	ND	ug/kg	5
	Endosulfan sulfate	"	ND	ug/kg	5
	Endrin aldehyde	"	ND	ug/kg	5
	4,4'DDE	"	ND	ug/kg	5
	4,4'-DDD	"	ND	ug/kg	5
	4,4'-DDT	"	ND	ug/kg	5
	Methoxychlor	"	ND	ug/kg	25
	Toxaphene	"	ND	ug/kg	100
Chlordane	"	ND	ug/kg	30	
Arochlor-1016	EPA3550B/8082	ND	ug/kg	50	
1221	"	ND	ug/kg	50	
1232	"	ND	ug/kg	50	
1242	"	ND	ug/kg	50	
1248	"	ND	ug/kg	50	
1254	"	ND	ug/kg	50	
1260	"	ND	ug/kg	50	

(Table continued on next page)

TABLE 5. Continued.

Sample Site	Parameter	Prep/Test Method	Result	Unit	PQL
Kua Bay Marine Sediment	Arsenic	EPA 3050B/6010B	ND	mg/kg	1
	Glyphosate	EPA 3050/547	ND	mg/kg	
	Alpha-BHC	EPA3550B/8081A	ND	ug/kg	2
	Beta-BHC	"	ND	ug/kg	2
	Gamma-BHC	"	ND	ug/kg	2
	Delta-BHC	"	ND	ug/kg	2
	Heptachlor	"	ND	ug/kg	2
	Heptachlor epoxide	"	ND	ug/kg	2
	Aldrin	"	ND	ug/kg	2
	Dieldrin	"	ND	ug/kg	4
	Endrin	"	ND	ug/kg	3
	Endosulfan I	"	ND	ug/kg	5
	Endosulfan II	"	ND	ug/kg	5
	Endosulfan sulfate	"	ND	ug/kg	5
	Endrin aldehyde	"	ND	ug/kg	5
	4,4'DDE	"	ND	ug/kg	5
	4,4'DDD	"	ND	ug/kg	5
	Methoxychlor	"	ND	ug/kg	25
	Toxaphene	"	ND	ug/kg	100
	Chlordane	"	ND	ug/kg	30
Arochlor-1016	1221	EPA3550B/8082	ND	ug/kg	50
	1232	"	ND	ug/kg	50
	1242	"	ND	ug/kg	50
	1248	"	ND	ug/kg	50
	1254	"	ND	ug/kg	50
	1260	"	ND	ug/kg	50

(Table continued on next page)

TABLE 5. Continued.

Sample Site	Parameter	Prep/Test Method	Result	Unit	PQL
Kua Bay Pond Sediment	Arsenic	EPA 3050B/6010B	ND	mg/kg	1
	Glyphosate	EPA 3050/547	ND	mg/kg	
	Alpha-BHC	EPA3550B/8081A	ND	ug/kg	2
	Beta-BHC	"	ND	ug/kg	2
	Gamma-BHC	"	ND	ug/kg	2
	Delta-BHC	"	ND	ug/kg	2
	Heptachlor	"	ND	ug/kg	2
	Heptachlor epoxide	"	ND	ug/kg	2
	Aldrin	"	ND	ug/kg	2
	Dieldrin	"	ND	ug/kg	4
	Endrin	"	ND	ug/kg	3
	Endosulfan I	"	ND	ug/kg	5
	Endosulfan II	"	ND	ug/kg	5
	Endosulfan sulfate	"	ND	ug/kg	5
	Endrin aldehyde	"	ND	ug/kg	5
	4,4'DDE	"	ND	ug/kg	5
	4,4'DDD	"	ND	ug/kg	5
	4,4'-DDT	"	ND	ug/kg	5
	Methoxychlor	"	ND	ug/kg	25
	Toxaphene	"	ND	ug/kg	100
Chlordane	"	ND	ug/kg	30	
Arochlor-1016	1221	EPA3550B/8082	ND	ug/kg	50
	1232	"	ND	ug/kg	50
	1242	"	ND	ug/kg	50
	1248	"	ND	ug/kg	50
	1254	"	ND	ug/kg	50
	1260	"	ND	ug/kg	50

(Table continued on next page)

TABLE 5. Continued.

Sample Site	Parameter	Prep/Test Method	Result	Unit	PQL
Makalawena Control Sediment	Arsenic	EPA 3050B/6010B	ND	mg/kg	1
	Glyphosate	EPA 3050/547	ND	mg/kg	
	Alpha-BHC	EPA3550B/8081A	ND	ug/kg	2
	Beta-BHC	"	ND	ug/kg	2
	Gamma-BHC	"	ND	ug/kg	2
	Delta-BHC	"	ND	ug/kg	2
	Heptachlor	"	ND	ug/kg	2
	Heptachlor epoxide	"	ND	ug/kg	2
	Aldrin	"	ND	ug/kg	2
	Dieldrin	"	ND	ug/kg	4
	Endrin	"	ND	ug/kg	3
	Endosulfan I	"	ND	ug/kg	5
	Endosulfan II	"	ND	ug/kg	5
	Endosulfan sulfate	"	ND	ug/kg	5
	Endrin aldehyde	"	ND	ug/kg	5
	4,4'DDE	"	ND	ug/kg	5
	4,4'DDT	"	ND	ug/kg	5
	Methoxychlor	"	ND	ug/kg	25
	Toxaphene	"	ND	ug/kg	100
	Chlordane	"	ND	ug/kg	30
	Arochlor-1016	EPA3550B/8082	ND	ug/kg	50
	1221	"	ND	ug/kg	50
	1232	"	ND	ug/kg	50
	1242	"	ND	ug/kg	50
	1248	"	ND	ug/kg	50
	1254	"	ND	ug/kg	50
	1260	"	ND	ug/kg	50

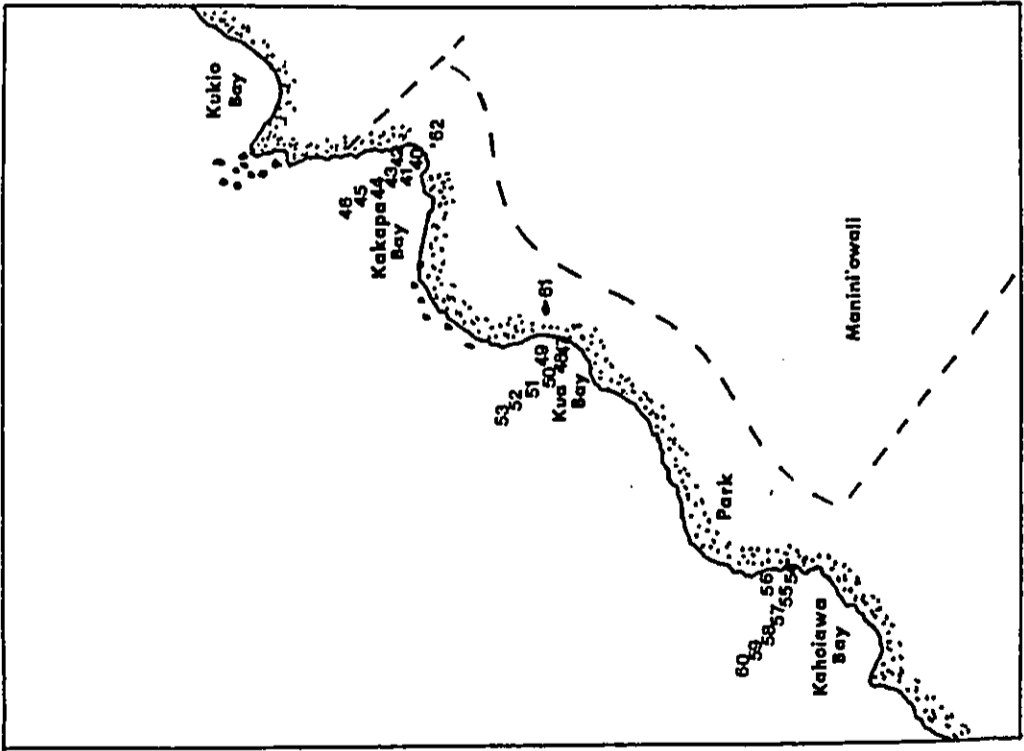
APPENDIX 1. Summary of the water quality parameters as measured at 23 sites for the Manini'owali project on 25 October 2001. Two samples are from anchialine pools and 21 from the adjacent ocean. For ocean samples the underlined geometric means exceed the regional Kona coast Department of Health water quality standards applied to nitrate nitrogen, ammonia nitrogen, total dissolved nitrogen, orthophosphorus, total dissolved phosphorus, chlorophyll-*a* and turbidity for surface samples. All values are in ug/l unless otherwise indicated.

Site No.	Nitrate		Ammonia		TDN	Ortho P	TDP	Si	DON	DOP
	N	N	N	P						
Marine Samples										
40	4.31	3.31	136.36	3.70	9.81	228.21	128.75	5.91		
41	2.30	1.54	106.96	4.01	10.23	158.30	103.12	6.22		
42	2.81	1.12	131.74	3.69	10.85	158.07	127.81	7.16		
43	0.30	0.41	105.00	3.58	10.23	124.50	104.29	6.65		
44	0.31	0.56	110.04	3.58	9.92	127.08	109.18	6.34		
45	0.07	0.86	111.30	4.00	10.23	118.57	110.25	6.23		
46	0.07	0.84	138.22	4.11	10.54	128.70	135.31	6.43		
47	1.83	4.95	192.36	3.68	11.16	220.81	185.57	7.48		
48	0.33	1.56	192.36	4.00	15.50	140.14	190.47	11.50		
49	0.34	1.49	200.62	3.99	13.02	181.36	198.79	9.03		
50	0.06	1.21	174.44	3.67	14.57	134.20	173.17	10.90		
51	0.05	1.14	200.62	3.67	15.50	117.46	199.42	11.83		
52	0.05	1.00	189.14	3.58	18.43	131.05	188.06	12.87		
53	0.11	0.51	189.22	3.66	18.74	133.60	198.80	13.06		
54	1.37	2.14	201.16	3.56	15.50	213.10	197.67	11.94		
55	0.37	0.51	212.66	3.66	17.98	152.42	211.78	14.32		
56	0.86	1.93	213.92	3.98	15.81	141.23	211.11	11.83		
57	0.36	0.73	220.92	3.55	17.36	135.54	219.81	13.81		
58	0.89	1.87	215.16	3.65	15.81	159.97	212.42	12.16		
59	0.40	0.73	230.44	3.33	18.60	132.40	229.31	15.27		
60	0.22	0.52	141.68	3.65	12.09	124.01	140.83	8.44		
Geometric Mean	0.37	1.11	188.88	3.72	13.31	147.35	164.55	9.48		
Anchialine Pool Samples										
61	170.10	80.08	1006.04	9.30	87.73	25457.32	755.86	78.43		
62	2880.30	13.30	4604.88	33.48	129.58	24928.44	1701.28	96.10		

APPENDIX 1. Continued.

Site No.	Turbidity (NTU)	Chl- <i>a</i>	Salinity (‰)	Oxygen (%)	Temp. (°C)	pH
Marine Samples						
40	0.06	0.165	34.910	101	27.2	8.16
41	0.08	0.143	35.003	100	27.3	8.15
42	0.10	0.153	35.016	100	26.9	8.15
43	0.07	0.096	35.008	101	27.1	8.16
44	0.07	0.113	35.031	101	26.8	8.16
45	0.06	0.173	35.031	102	27.0	8.16
46	0.06	0.132	35.004	101	27.0	8.16
47	0.19	0.200	34.928	101	27.0	8.08
48	0.05	0.203	35.029	100	27.0	8.09
49	0.07	0.168	35.027	100	27.2	8.10
50	0.06	0.162	35.035	101	27.2	8.16
51	0.09	0.144	35.036	100	27.5	8.11
52	0.06	0.122	35.026	101	27.4	8.12
53	0.08	0.144	35.004	102	27.3	8.12
54	0.08	0.149	34.954	101	27.2	8.14
55	0.11	0.180	35.020	100	27.3	8.13
56	0.10	0.164	35.018	100	27.3	8.13
57	0.14	0.235	35.028	102	27.0	8.13
58	0.08	0.191	35.016	101	27.1	8.13
59	0.09	0.170	35.015	102	27.3	8.14
60	0.13	0.139	35.030	102	26.8	8.15
Geometric Means	0.08	0.158	35.008	101	27.1	8.13
Anchialine Pool Samples						
61	0.73	0.779	6.701	66	27.8	8.17
62	0.09	0.075	4.289	91	25.9	8.10

FIGURE 1. Outline map of the coastal portion of the Manini'owali project site showing the approximate locations of the 21 marine sample sites and the two anchialine pools located adjacent to the shoreline. Note that the makai boundary of the Manini'owali project site is situated at distances greater than 1,000 feet from the shoreline. Sample locations and boundaries shown as dashed lines are approximate and the shoreline is stippled. Approximate scale: 1 inch ~ 410 m.



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Appendix J
Kekaha Kai State Park Community
and Task Force Meetings 1994 - 2002

Kekaha Kai State Park

North Kona District, Island of Hawaii



**Conceptual Plan and Development Plan
Community and Task Force Meetings
1994 - 2002**

**Kekaha Kai State Park
North Kona District, Island of Hawaii
Community and Task Force Meetings, 1994 - 2002**

Date	Meeting and Location	Topics/Purpose
September 27, 1994	Community Meeting at Kealakehe Intermediate School Cafeteria, Kona, Hawaii	Solicit public input for conceptual plan for park.
April 25, 1995	Community Meeting at Kealakehe Intermediate School Cafeteria, Kona, Hawaii	Solicit public input for conceptual plan for park; review of conceptual plan intensity scenarios by ahupua'a.
November 15, 1995	Task Force Meeting No. 1, Old Kona Airport State Recreation Area Special Events Pavilion	Sustaining Wilderness Areas; Task Force Approach, Conceptual Plan; Information Gathering, Discussion of Phase 1 Development Plan
February 24, 1995	Task Force Meeting No. 2, Mahai'ula, Magoon House	Task Force Process/ Products, Park Ambassador, Background Information on Mahai'ula, Homework/ Discussion, Major Components of Phase 1 Development Plan, Management Issues
April 6, 1996	Task Force Meeting No. 3 Mahai'ula, Magoon House	Park Program Requirements; Aquatic, Cultural and Visitor Center Committee Reports
May 6, 1996	Community Meeting Kealakehe Intermediate School Cafeteria, Kona, Hawaii	Planning Process and Objectives, Task Force Process and Products, Mahai'ula Resources, Alternatives, Task Force Committee Reports and Recommendations, Next Steps.
July 31, 1996	Task Force Meeting No. 4 Mahai'ula, Magoon House	Queen Ka'ahumanu Highway Interchange, Americans with Disability Act; Marine Uses, Architectural Design Guidelines Six-Month Timetable, Renovation of Structures, Department of Public Safety Renovation proposal; Community Participation; Polynesian Voyaging Society Cultural Plan.
September 26, 1996	Task Force/Friends of Mahai'ula at Kekaha Kai State Park, Mahai'ula, Magoon House, Implementation Meeting No. 1	Facility Improvements/ Renovation, Cultural Program, Marine Program, New Signs, Volunteer Program, Fund Raising
October 29, 1996	Task Force/Friends of Mahai'ula at Kekaha Kai State Park, Mahai'ula, Magoon House, Implementation Meeting No. 2	Committee Recommendations: Marine Education, Facility Improvements, Fund Raising, Kayaks in the Park, Name Selection

November 20, 1996	Friends of Mahai'ula at Kekaha Kai State Park, Mahai'ula Section, Community Workday No. 1	Hands-on Clean-up.
January 4, 1997	Friends of Mahai'ula at Kekaha Kai State Park, Mahai'ula Section, Community Workday No. 2	Hands-on Clean-up.
April 9, 1997	Task Force/Friends of Mahai'ula at Kekaha Kai State Park, Mahai'ula, Magoon House Implementation Meeting No. 2	Park Ambassador, Evaluation of Community Workdays, Committee Reports: Marine Education, Cultural Committee Report on Park Name Change, Renovation Committee, Fund Raising; Friends of Mahai'ula Long-Term Plans, New schedule/site for meetings; Interpretive Program Development.
April 25, 1998	Reconvening of Task Force to Address the Proposed "Wind on Water" Film Series, Mahai'ula, Magoon House	Use of Mahai'ula for filming television series, "Wind on Water".
January 20, 2001	Task Force Meeting, Mahai'ula, Magoon House	Manini'owali Equity Company Proposal for Manini'owali-Kuki'o Section of the Park
July 14, 2001	Task Force Meeting, Mahai'ula, Magoon House	Status and Schedule for Park Plan Completion, Addition of a Development Plan for the Manini'owali-Kuki'o Section
September 29, 2001	Mahai'ula, Magoon House	Resources of the Manini'owali-Kuki'o and Awake'e Sections of the Park, Re-alignment of the Kua Bay Access Road, Proposal for an Adopt-a-Park Organization.
March 1, 2002	NELHA Conference Room, Kona, Hawaii	Hui Lailima O Kekaha Kai Status, Delegation of Authority to Chairperson to Approve Cost Adjustments, Review Alternative Park Development Plans for Awake'e, Kahoi'awa and Manini'owali-Kuki'o Sections
June 22, 2002	Task Force Meeting	Hui Lailima O Kekaha Kai Report, Archaeological Inventory Survey, Draft Development Plans, Position on Paving the Road to Mahai'ula.



John Waihee
Governor

94-49

NEWS RELEASE

DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of State Parks

September 16, 1994

CONTACT: Sherrie Samuels, Oahu, 587-0295

A COMMUNITY INFORMATION MEETING FOR THE KONA COAST STATE PARK NORTH KONA, HAWAII

A public meeting to solicit input for the Kona Coast State Park Conceptual Plan will be held 7:00 p.m. to 9:00 p.m., Tuesday, September 27, at the Kealakehe Intermediate School Cafeteria, 74-5062 Onipaa Street in Kailua-Kona, Hawaii.

The plan is being undertaken by the Department of Land and Natural Resources' Division of State Parks. Group 70 International, Inc. has been recently hired to prepare the Conceptual Plan, Phase 1 Development Plan and Environmental Impact Statement.

The planning process is just beginning for a conceptual plan for the Kona Coast State Park, which is located north of the Keahole Airport and includes the makai portions of Mahai'ula, Makalawena, Awake'e, Manini'owali, and Kuki'o ahupua'a on the North Kona Coast. The area has a wide variety of natural and cultural resources including beaches, archaeological and historical sites, a significant cultural history, a portion of the Ala Kahakai trail, and numerous natural features.

Community members are invited to this initial meeting to learn about park planning efforts and to share ideas concerning the park and the surrounding region.

For more information, please contact George Atta or Christine Ruotola, Group 70 International, Inc., in Honolulu at 523-5866 (fax: 523-5874), or Sherrie Samuels, Division of State Parks in Honolulu, at 587-0295 (fax: 587-0311).

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GROUP 70
INTERNATIONAL

CONFERENCE REPORT

Group 70 International, Inc. • Architecture • Planning • Interior Design • Environmental Services
925 Bethel Street, Fifth Floor • Honolulu, Hawaii 96813-4398 • Telephone (808) 523-5866 • FAX (808) 523-5867

TO	FILE	FROM	CHRISTINE RUOTOLA
DATE	27 SEPTEMBER 1994	PLACE	KEALAKEHE INT SCHOOL
PROJECT	KONA COAST PARK/94011-11		
PRESENT	SHERRIE SAMUELS GEORGE ATTA CHRISTINE RUOTOLA		COMMUNITY MEMBERS (see attached list)
SUBJECT	COMMUNITY MEETING #1		

Sherrie Samuels opened the meeting and introduced herself and Group 70. She explained that this was the first of approximately four community meetings regarding the park. She discussed the location of the park and areas contained within the park. Sherrie then reviewed land-ownership and the status of talks with Bishop Estate regarding Makalawena and with Huehue Ranch regarding Kikaua Point.

Thirty-seven individuals signed attendance sheets. A community member asked that the pond called Opaepa Pond be changed to its correct name, Kapoikai.

Sherrie explained the State's contract with Group 70. At this point a community member asked about Group 70's general experience and specific park planning experience. Members expressed concern that outsiders were coming and trying to tell the local community what was best for them. George described several of Group 70's past projects.

Sherrie explained State Park's budget requests and announced that State Parks Division (SPD) is trying to get an executive order to place all the state-owned lands within the park boundaries under the jurisdiction of SPD. At this point Sherrie turned the presentation over to George.

George discussed the background of the park using a location map, site map, two aerial photos and the project timeline. A community member asked when the North Kona Development Group's (NKDG) project at Maniniowali would proceed. George said that his understanding was that NKDG was reorganizing but that interested individuals should contact NKDG directly with questions.

George presented a brief slide show and mentioned that the park may include camping in minimal impact areas. He also said the road up Kuili might possibly be closed. Regarding preservation of archaeological and cultural resources, George brought up the concern that providing access to a resource may lead to the desecration of that resource.

The following subconsultants were identified:

Archaeology - Cultural Resource Management (Aki Sinoto, Jeff Panteleo)

UNLESS WRITTEN OBJECTION IS RECEIVED WITHIN SEVEN DAYS WE ASSUME STATEMENTS CONTAINED WITHIN ARE AC

CONFERENCE REPORT
KONA COAST STATE PARK
27 SEPTEMBER 1994
PAGE 2

Traffic Engineering - Pacific Planning and Engineering (Jonathan Shimada)
Civil Engineering - Engineering Concepts (Kay Muranaka)
Botany - Winona Char
Terrestrial Biology - Tim Ohashi

Community members expressed concern that there was no consultant to do baseline studies of the reef.

Several community members started asking questions and making statements at this point. Summaries of each speakers comments are listed below.

Mr. Arthur Kepo'o -

As a full-blooded Hawaiian, preservation is the most important thing. Get Kona kamaaina input in planning the park.

Mr. Mark Van Pernis -

Owned 9 acres at Kua Bay, which were purchased by the state in 1990.

1. Get Earthplan information/notes from Kua Bay community input process.
2. Get a contractor to do baseline study of the reef.
3. The community wants intensive use at Kua Bay and limited access at Makalawena.
4. West Hawaii has the fewest acres or park per capita than anywhere else in the state. Do the park now. Put more money into getting the park. Public should look to Rep. Isbell and senators for help.
5. Makalawena needs to be acquired from Kamehameha Schools/Bishop Estate (KS/BE). If it can't be bought, it should be condemned. Bishop Estate has had plans to build a resort at Makalawena.

Mr. Arthur Kepo'o -

Let KS/BE keep Makalawena for Hawaiians. The shore means food for Hawaiians and if someone tries to take away Makalawena, Hawaiians will fight.

Mr. Rod Burgess -

Works for KS/BE and is a member of the Royal Order of Kamehameha

Re Makalawena -

Plans for a resort existed when non-Hawaiians were in charge at KS/BE.

There is no reality of Makalawena becoming a park.

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27 SEPTEMBER 1994
PAGE 3

His staff report to the KS/BE trustees said that Makalawena should not be sold under any conditions because it is worth more than any amount of money that would be paid.

The state can only utilize its power of eminent domain if there is a demonstrated public need. This will not be the case at Makalawena.

KS/BE has recently hired environmental consultants to inventory the resources at Makalawena.

The state should scrap the plan for the park if the whole park is going to look like Mahaiula.

Ms. Hannah Kihalani Springer -

Suggested that the name of the park not be Kona Coast State Park. One option is Kekaha Coastal Park.

Favored the establishment of a corridor along the coastline for the Ala Kahakai.

Look not only at the coast but also inland. Look to mauka/makai trails. In the case of Maniniowali, the State claimed the mauka/makai trail running through the property - will this be the case in Makalawena?

Some areas are too sensitive to be accessible to park users. Springer has ancestors buried above ground at Kakapa Bay (platform burials). Possibly consider moving the trail away from the burials.

Road at Kuili was supposed to already have been blocked.

Representative Virginia Isbell -

It is a mistake to hand the land over to the State Parks Division. They have a poor record of doing anything - examples include Kealakekua Bay, Keolonahihi and Hapuna.

Suggested that everyone look at handing the park over to a group such as a non-profit organization. This group would be in charge of only this park and could actively lobby and write grants for funding. Sources of funding could include KS/BE, OHA, etc. For example, the Natural Energy Lab - Hawaii has a separate authority.

Suggested it not be called a 'park' because then it will have to meet ADA requirements. It could be called a scenic view or something similar.

Regarding Makalawena, park planners should work with the general public and Native Hawaiians to provide limited public access.

The park should be a learning place more than a recreational place.

CONFERENCE REPORT
KONA COAST STATE PARK
27 SEPTEMBER 1994
PAGE 4

Let a park authority make decisions based on public input.

Need innovative approaches to planning and managing the park.

Mr. Arthur Kepo'o -

If Hawaiians carry out their culture at Makalawena, other people are welcome to come and enjoy the area. Only people who have ancestral rights to the area should be allowed to live in the park.

Take care of Makalawena. Everyone work together.

Mr. Terry Yuen -

Played small part in fighting KS/BE plans of developing a resort at Makalawena.

Does not want to see a hotel at Makalawena. Give land to State because they will not build a resort there.

Mr. Kepo'o and Mr. Burgess -

The state has not done anything for Native Hawaiians. Keep Makalawena with Bishop Estate.

Sue Aronson -

Asked Rod Burgess to request that the KS/BE trustees to sign an agreement in perpetuity that they will not develop a hotel at Makalawena. Mr. Burgess said that an official group must form and formally present their request to the trustees.

Representative Virginia Isbell -

For good management, the park needs a caretaker at every half mile.

Mr. Burgess -

Park would be a huge management problem. The record of what has happened at Mahaiula in the short time it has opened is discouraging. It should be left as is - people can make an effort to access areas.

Mr. Van Pernis

Providing access to a park allows kids to learn how to swim and others to enjoy the area more easily

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KONA COAST STATE PARK
27 SEPTEMBER 1994
PAGE 5

Sherrie Samuels concluded the discussion at this point. Written comments were collected. Newsletters and updates will be sent to community members who signed in.

Several community members suggested that there be a facilitator at the next meeting and that ideas be recorded on a flip chart.

Virginia Isbell and Hannah Kihalani Springer will help form and participate in a group that will attempt to stop an executive order to transfer the lands to State Parks Division. The group will also discuss the formation of an authority to manage the park.

Kona Coast State Park
 Community Information Meeting
 September 27, 1994, 7-9 p.m.
 Kealakehe Intermediate School

<u>Name</u>	<u>Address</u>	<u>Phone</u>
Ruby McDonald	75-5706 Hanama Pl #107, KK	329-7368
Heather Cole	P.O.Box 1119, Kailua HI 96740	325-0808
Alex Tokunaga/Margaret	74-5070 Huaalo Pl, Kailua	329-1243
Bobby Command	Box 789, Kailua Kona	329-9311
Hannah Kihalani Springer	72-3403 Mamalahoa, Kailua Kona	325-7989
Jaime Tamanaha	73-1122 Alihilani Pl, 96740	325-5212
Maile Arkan	73-1122 Alihilani Pl	325-0812
Clinton Pagofi	Box 1491	329-8327
Kelley Cochran	73-1122 Alihilani Pl	325-5210
Lei Collins	75-5286 Mamalahoa, Holualoa, Kona HI 96725	329-5760
Mark van Pernis	P.O.Box 2156, Kailua-Kona	329-3551
Tina Clothier	P.O.Box 3583, Kailua-Kona	329-0091
Sara Peck	P.O.Box 56, Holualoa	322-2266
Karen Goff	P.O.Box 1602, Kailua-Kona	325-6175
Virginia Isbell	P.O.Box 926, Kealakekua, HI 96750	323-2565
Arthur F. Kepo'o	P.O.Box 2685, Kamuele, HI 96743	885-4066
Rick Gaffney	73-1062 Ahikawa St., Kailua-Kona	325-5000
Jim Rath	73-1127 Ahikawa St.	325-5122
Sue Aronson	P.O.Box 31 Holualoa	329-5255
Rod Burgess	75-275 Nani Kailua Dr., Kailua-Kona	329-1172, 334-0289

<u>Name</u>	<u>Address</u>	<u>Phone</u>
Nita Pilago	73-1224 Kaiminani Dr.	325-7760
Bernard Akana	78-6596 Alii Dr., Kailua-Kona	322-8433
Terry Cicso	P.O.Box 2788, Kailua-Kona	329-7887
Art & Anne Stockel	72-1001 Puukala St., Kailua-Kona	325-7563
Marni Herber KES	75-5737 Kuakini #207, Kailua-Kona	329-1758
Terry Yuen/Joane Nordstrom	77-356 Ainanani St., 96740	322-8488
Douglas Blake	73-4504 Pohanailei Dr., Box 10, 96740	325-9950
Janice Palma	P.O.Box 4899, Kailua-Kona, HI 96745	325-3416
Rhianna Clark	75-150 Lunopule, KK, HI 96740	326-1447
Apollo M. Kepo'o	708 Huali Way Kulululi HI	885-4066
Dick Boranian	75-5648 B Mamalahoa Way, Holualoa 96725	322-2579
K. Chen	Kailua-Kona	329-1925
Libert Landgraf	Board of Land and Natural Resources	
Pete Hendrick	Box 915, Kamuela, HI 96743	885-4453

KONA COAST STATE PARK

The Kona Coast State Park is a 2,000 + acre park along the Kona Coast from Mahaiula to Kukio. Beginning with land just north of Keahole Airport it stretches along 5.3 miles of spectacular coastline up to Kikaua Point. Except for the section along Makalawena the entire coast is owned by the State of Hawaii. The site narrows to a 1,000 feet along the shoreline at Maniniowali and Kukio until it tapers off to a strip at Kikaua Point. Except at Mahaiula the access to this coastline is via four-wheel drive or boat. The vast majority of the site is vacant lava fields in varying stages of revegetation. It is a quiet and spiritual landscape filled with wilderness values.

Resources

Sandy beaches are a scarce resource on the Big Island. Along this coastline there are several beaches which are natural jewels. Kikaua Point has a small protected beach area behind some offshore rocks. Kua Bay is spectacular in its sandy bottom and aquamarine colors. Makalawena has a small protected toddler's wading area as well as a beautiful sandy beach. Mahaiula has a great sandy beach and small pockets of sandy bottom offshore. The rocky shoreline areas have good fishing.

Several ponds and wetlands dot the coastline. Anchialine ponds are found at various point along the coast. Small oases are found around the pond areas. The largest, most impressive and important wetland is Opaepa Pond at Makalawena. Due to the scarcity of water in the area, these ponds play a vital role in the ecology of the region. The smaller vegetation and groves of trees around these water sources and shallow groundwater areas are joyous resources in this hot dry climate.

Puu Kuili is the highest point on the site. Standing 342 feet above sea level it sits in quiet solitude with commanding views of the entire coast. From its summit one is able to view the resort and residential areas to the north and the Airport to the south. Looking mauka towards Hualalai one senses a connection with the broader fabric of the land. A sense of the grandeur of the

earth is felt at this site.

A portion of the Ala Kahakai runs through the Park. Parts of it are intact and parts have disappeared. Site planning will incorporate the Ala Kahakai into the overall concept for the park.

Many archaeological sites exist in the area. Both historic and prehistoric sites are known. Further archaeological work will be conducted as part of the planning process and these sites will be protected as necessary.

The lavā fields that cover much of the landscape are also resources in the region. They lend themselves to the wilderness experience of this park. Bright sun, lack of vegetation and stark contrasts create dramatic effects which define the character of this kind of wilderness. There is a wild beauty to the desolation of this landscape.

Finally, the offshore coastal resources are tremendous. Beyond swimming and snorkeling activities, these coastal waters are important habitat for Hawaii's marine animals. Porpoises and sea turtles abound off this coast which is also famous for its billfishing. Resources for traditional fishing and gathering activities abound along this coast. The ocean itself is a great resource and the interplay between land and sea creates regular diurnal changes in the wind patterns. This pattern helps create a unique climate and atmosphere.

Planning Effort

The State of Hawaii is currently engaged in a planning effort to set long term goals for the park. Community input is being solicited to develop the site into a regional resource open to residents and visitors alike. Alternative conceptual plans for the entire site will be developed with citizen participation. The plan will identify significant natural and cultural features and major outdoor recreation values. After the resources are identified the preservation or use of these resources will be assessed. Compatible public uses and appropriate facility development needs will be identified. Impacts on neighboring areas will also be addressed. The final selection of the

conceptual plan will be made by the Board of Land and Natural Resources (BLNR).

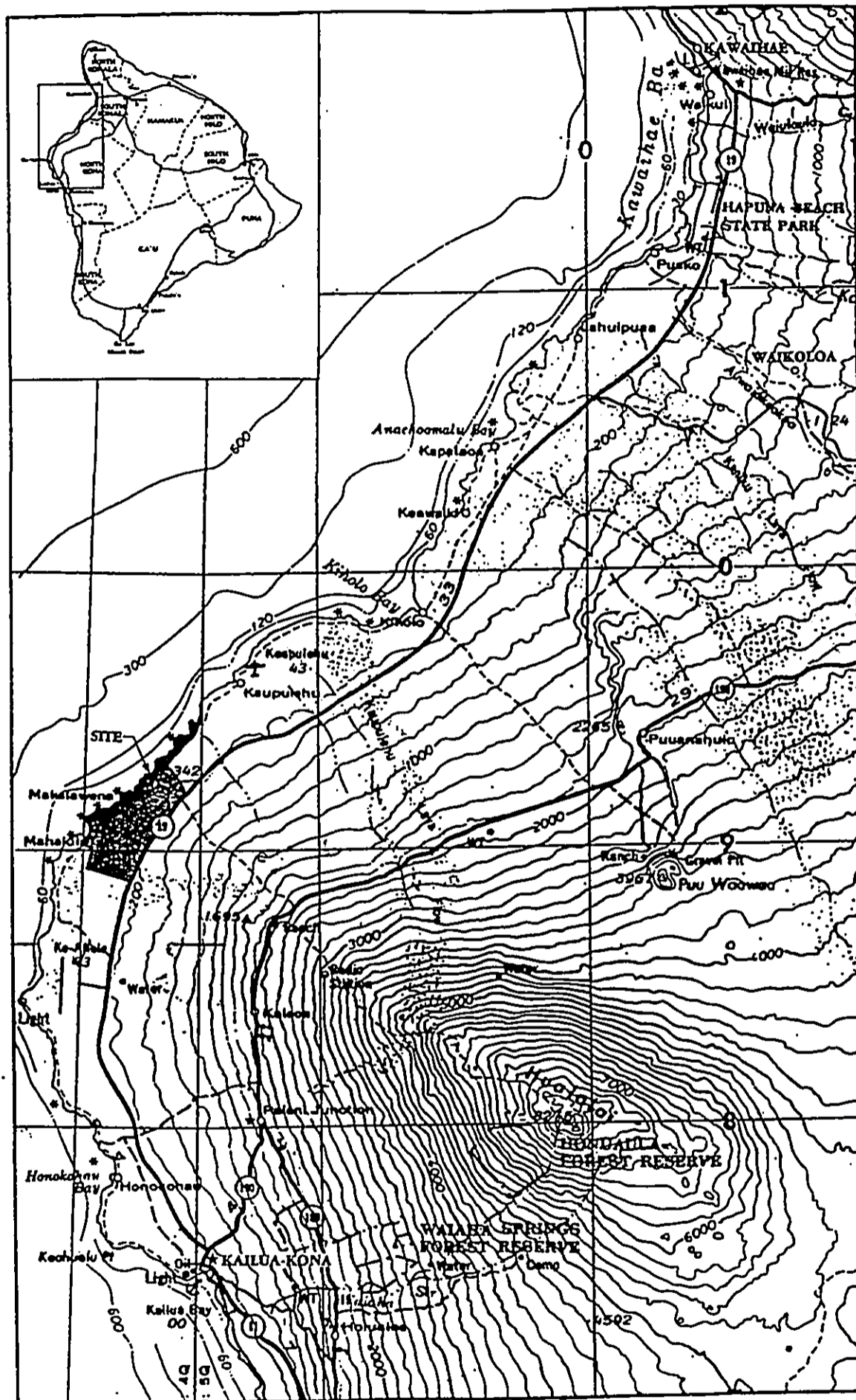
After the conceptual plan is selected project planning will move to a phase one development plan for the Mahaiula area. The phase I development plan will include a site plan for the current day use area and adjacent lands as necessary. The development plan will include park features, environmental concerns, interpretive values and park facilities. Several alternatives will be evaluated and public participation will also be actively sought.

In conjunction with the phase I project development plans an EIS will be prepared for the Mahaiula area. This action is necessary to authorize the expenditure of public funds and the use of State lands. The EIS will be based on the approved phase I development plan.

Public participation is encouraged throughout the planning process. If there are any question, ideas, concerns, feelings or thoughts about the Park please contact the following:

Sherrie Samuels
Department of Land and Natural Resources
Division of State Parks
P.O. Box 621
Honolulu, HI. 96809
ph. 587-0295
fax 587-0311

George Atta or Christine Ruotola
Group 70 International, Inc.
925 Bethel Street
Honolulu, HI. 96813-4307
ph. 523-5866
fax 523-5874



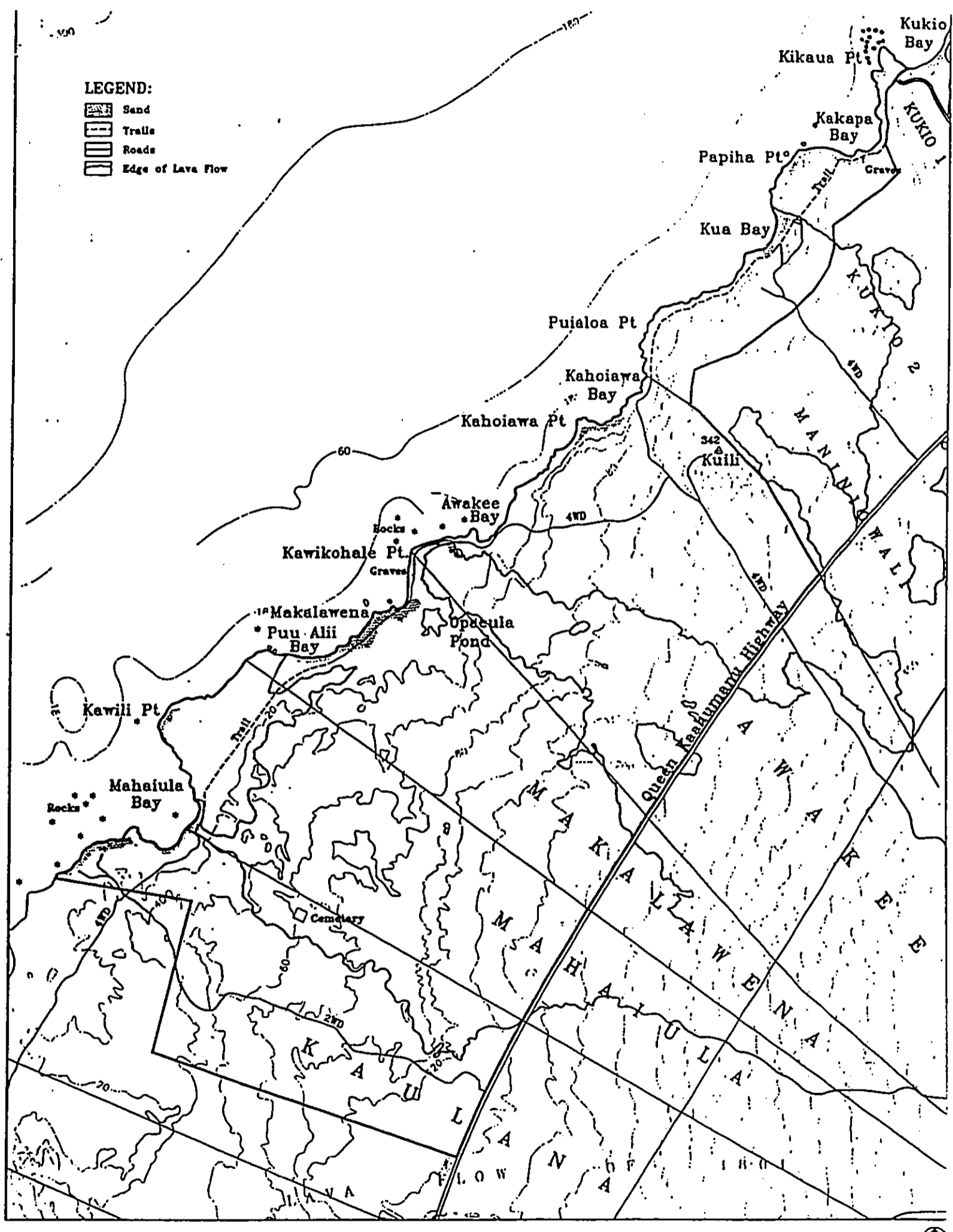
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KONA COAST STATE PARK

Location Map





GROUP 70

September 1964

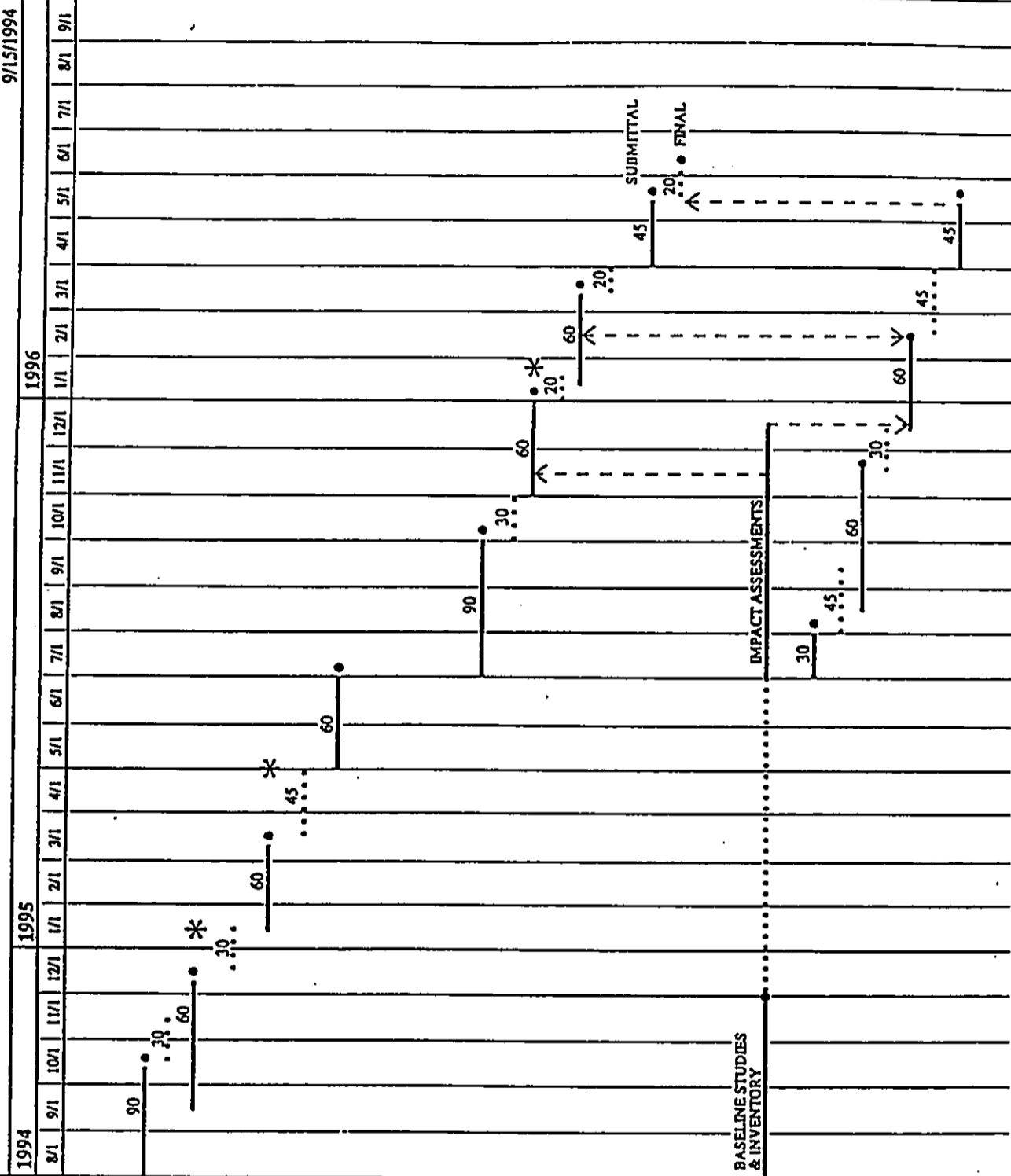


LEGEND:
 Sand
 Trails
 Roads
 Edge of Lava Flow

KONA COAST STATE PARK SCHEDULE

- LEGEND**
-  BOARD PRESENTATIONS
 -  CONSULTANT ACTIVITIES
 -  AGENCY/PUBLIC REVIEW
 -  CONSULTANT SUBMITTAL

- I. CONCEPTUAL
 - A. RESEARCH / ANALYSIS
 - B. ALTERNATIVE CONCEPTUAL PLANS
 - C. DRAFT CONCEPTUAL PLANS
 - D. FINAL CONCEPTUAL PLANS
- II. DEVELOPMENT PLAN
 - A. RESEARCH / ANALYSIS
 - B. ALTERNATIVE PLANS
 - C. DRAFT DEVELOPMENT PLANS
 - D. FINAL DEVELOPMENT PLANS
- III. EIS
 - A. RESEARCH
 - B. PRE-CONSULTATION
 - C. EA/NOP
 - D. DRAFT EIS
 - E. FINAL EIS



Community Information Meeting
Kona Coast State Park
Conceptual Plan, Phase I Development Plan and
Environmental Impact Statement

September 27, 1994
Additional Comment Sheet

Please make any additional comments you feel would be helpful as preparation of the conceptual plan for the Kona Coast State Park moves forward. Please fold this comment sheet so it can be sent to the address printed on the back, staple or tape and apply postage stamp.

Comments:

Your Name: _____

Your Address: _____

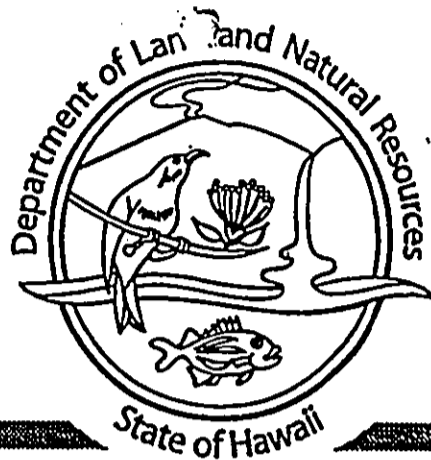
Your Telephone Number: _____

GROUP 70 INTERNATIONAL, INC.
Attn: Mr. George Atta or Christine Ruotola
925 BETHEL STREET
HONOLULU, HAWAII 96813-4307

Public Information Office
Kalanimoku Building, Room 130
1151 Punchbowl Street
Honolulu, Hawai'i 96813

NEWS RELEASE

Contact: Sherrie Samuels, Oahu, 587-0300
April 12, 1995
95-26



COMMUNITY INFORMATION MEETING FOR KONA COAST STATE PARK, NORTH KONA, HAWAII

The second in a series of five public meetings to solicit input for the Kona Coast State Park Conceptual Plan will be held 6:30 p.m. to 9:30 p.m., Tuesday, April 25, 1995, at the Kealakehe Intermediate School Cafeteria, 74-5062 Onipa'a Street, Kailua-Kona, Hawaii.

The plan is being undertaken by the Department of Land and Natural Resources Division of State Parks. Group 70 International, Inc., has been hired to prepare the Conceptual Plan, Phase 1 Development Plan and Environmental Impact Statement for the park. The planning process began in mid-1994 and the initial public meeting was held in September 1994.

"The Kona Coast State Park is located north of the Keahole Airport and includes the makai portions of Mahai'ula, Awake'e, Manini'owali, and Kuki'o ahupua'a on the North Kona Coast. The area has a wide variety of natural and cultural resources including beaches, and archaeological and historical sites. A portion of the Ala Kahakai, the coastal trail being considered for designation as a National Scenic and Historic Trail, passes through the park," said Sherrie Samuels, planner for the Division of State Parks.

The State Parks Division and its consultant will present preliminary planning alternatives for the various sections of the park on April 25, 1995. "These alternatives will include low-, medium-, and high-intensity development scenarios for each park section," said Samuels. "The community will be asked to provide their comments on the intensity of park services desired in each park section, while retaining the wilderness character of the park."

For more information, contact George Atta, or Christine Ruotola, Group 70 International, Inc., in Honolulu, 523-5866 (fax: 523-5874), or Sherrie Samuels, 587-0296 (fac: 587-0311).

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*Sent to attached
list of interested
individuals; approximate
174 - sent on 4/19/95*

Plans for Kona Coast State Park up for discussion Tuesday night

By **BOBBY COMMAND**
West Hawaii Today

The second in a series of five public meetings regarding a conceptual plan for the 2,000-acre Kona Coast State Park will be held Tuesday night.

The hearing, to be conducted by representatives of Honolulu consultant, Group 70 International, and members of the state Department of Land and Natural Resources, will be held at 6:30 p.m. at Kealahou Intermediate School.

State-owned land slated for development of Kona Coast State Park is located north of Keahou-Kona International Airport and stretches north along more than five miles of shoreline. It includes the parts or all of the makai portions of the ahupuaa, or land divisions of Kaulana, Mahaiula, Awakee, Maniniowali and Kukio.

A small portion of the park is already open for public use at Mahaiula Bay. The 6.5-acre park, formerly the "Second Beach" portion of the Magoon Estate, is accessible on a marked, but dilapidated

road less than three miles north of the airport access road.

The area proposed for the state park, like most of the coastline of West Hawaii, is rich in natural and cultural resources, including a half-dozen beaches, archaeological features and historic sites.

A portion of the Ala Kahakai coastal trail system being considered for designation as a National Scenic and Historic Trail also passes through the park.

Public input was accepted during the first meeting in September 1994. "Since that last meeting," said Mike Wilson, DLNR chairperson, "the consultant has prepared preliminary planning alternatives for various portions of the park."

Alternatives for sections of the park include low-, medium- and high-density development scenarios for each park section.

See MEETING
Page 4A

...Meeting set on conceptual plan for park

From Page 1A

According to Sherrie Samuels, planner for the Division of State Parks, the planning process calls for the preparation of a conceptual plan, phase one development plan and an environmental impact statement for phase one, which is expected to be completed by mid-1996.

The park ran into problems last year after Kamehameha Schools/Bishop Estate turned down an offer to swap a parcel at Makalawena for ceded lands in an area recently reclassified by the state into the Urban District.

The 353-acre Makalawena parcel splits the state-owned acreage into two pieces. It had been earmarked by Bishop Estate in the 1980s as a hotel,

resort community and golf course, but strong public outcry forced the plans to be dropped.

During the first meeting, Bishop Estate representative Rod Burgess said Makalawena was not for sale at any price and would be set aside as a natural preserve by the estate.

In order to make access to either side of the park easier, the Legislature has tentatively included \$1.38 million in the 1996-97 state budget to purchase an easement across the Makalawena property.

However, even if the money is cut from the budget, park visitors will still be able to reach both sides of the park along the public property on the shoreline at Makalawena — described as the area between the water and the highest reach of the waves.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

APR 18 1995

Community Information Meeting
Kona Coast State Park, Hawaii

CHAIRPERSON
MICHAEL D. WILSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Dear Friend of Kona Coast State Park,

In September 1994, you attended the first meeting in a series of five community information meetings for the Kona Coast State Park Conceptual Plan. The second community meeting in the series will be held on April 25, 1995, 6:30 p.m. to 9:30 p.m. at the Kealakehe Intermediate School Cafeteria, 74-5062 Onipa'a Street, Kailua-Kona, Hawaii.

At the first meeting, you may recall the Division of State Parks and its consultant, Group 70 International, Inc. presented an introduction to the park, and the status of acquisition and operations, as well as information on park resources. The planning process calls for the preparation of a Conceptual Plan, Phase 1 Development Plan and an Environmental Impact Statement for Phase I, and is expected to be completed by mid-1996.

Since the last meeting, the consultant has prepared preliminary planning alternatives for various sections of the park, based on compiled background information. The preliminary planning alternatives will be presented at the April 25 meeting.

Alternatives will include low-, medium-, and high-intensity public use scenarios for each park section. You, as a member of the community, will be asked to help determine a balance between the need to protect the cultural and natural features of the park while providing public use and appreciation of some of these features.

Please accept this invitation to again participate in planning the Kona Coast State Park. Your participation at this community information meeting, and later, at subsequent meetings, represents your commitment to the park and is considered to be essential to its success.

Aloha,

A handwritten signature in black ink, appearing to read "Michael D. Wilson".
MICHAEL D. WILSON

KONA COAST STATE PARK, HAWAII

Conceptual Plan Meeting No. 2

**April 25, 1995
6:30-9:00 P.M.**

Introductions

Overview

**Conceptual Use Intensity Scenarios
by Ahupua`a**

Closing

**Kona Coast State Park
Group Memory
April 25, 1995**

Mahai'ula and Kaulana Ahupua'a:

Three levels of intensity for the Mahai'ula/Kaulana ahupua'a were outlined by George Atta from Group 70. The following comments were received.

Safety and Health concerns need to be addressed for all intensities.

Natural and cultural resources baseline studies need to be done.

We need to define "cultural resources" broadly, not limited to historical but current cultural practices as well.

When looking at the marine resources, both the biological/ecosystem resources and the cultural perspective, eg. fishes that are used for food or ceremonies, need to be identified.

View planes to the ocean are important culturally for ceremonies.

For any alternative, a Comprehensive Cultural Resources Management Plan needs to be developed and implemented.

A konohiki concept is a way to manage the cultural resources.

A Marine Resources Management Plan is needed that was sustainable.

Degradation has already occurred so today's baseline data is not necessarily sustainable.

A question was raised about the purpose of the park, is it primarily for locals or for visitors?

Local was defined as people who understand habits and attitudes that we share as a community that visitors don't share.

The park should be accessible to locals.

IF forced to chose high intensity somewhere, it should be closest to the airport and population center of Kailua-Kona.

Begin at the lowest intensity, then phase to higher intensity, if necessary.

Minimum improvements for health and safety is all that should be done.

The "low intensity" alternative outlined was seen as "high intensity".
Regardless of "intensity", some areas may need to be protected.

Sustainability of the resources is important.

Usage is too high already and this is a Management issue regardless of intensity.

Access = usage = impacts.

Access needs to be controlled and policed to minimize vandalism.

This is not State-owned land, but rather public land held in trust by the State.

Specifics for Mahai'ula:

High intensity Use- questioned the use of cabins.

Identify location of mauka-makai trails.

Composting luas only improvements needed.

Parking needs management.

Prioritize cultural, local resources.

Camping for fishermen

Magoon house should be considered "historic site" and should be public. It could be used for interpretive programs, but should not be used for private residence, eg. for a caretaker.

Konohiki needed.

Makalawena Ahupua'a:

If the State is serious, about this park, they should buy it.

The mauka-makai trail is already available to the public due to historic use.

Awake'e Ahupua'a:

Given the discussion about Mahai'ula, only the low intensity use was presented by George Atta. This would close off the existing 4WD access road, except for park maintenance and access for Bishop Estate to Makalawena. The following comments were received.

Today, Awake'e is used primarily for subsistence uses.

Access should be resource driven, not people driven.

Management is an issue.

Specifics for Awake'e:

Primitive Camping for fishermen
Konohiki with kapu system for resource management

Maninio'wali/ Kukio Ahupua'a:

Only the low intensity alternative was discussed by George Atta. He also stated that the agreement between North Kona Development and the community outlined some improvements for the Kua Bay area and the assumption was that these improvements would take place. The following comments were received.

A question was raised about ADA requirements when spending public funds. The response was that ADA applies to paved areas and comfort stations but not to unpaved areas.

In Kua, there was a strong lobby for ADA access.

Some limits on access are needed to maintain the "specialness" of the area.

Specifics for Maninio'wali/Kukio:

Camping for fishermen
Konohiki system

OVERALL CLIPBOARD

Maintenance -Take care of what is there before you increase access.

Park Governance/Management- supervision of facilities is needed **NOW, before** any more facilities are planned.

Caretakers- 24 hour needed

Costs- consider costs up front, How are you going to pay for and maintain facilities?

Resource Capability- Resource Management plans need to be developed and need to be sustainable. Konohiki concept with certain kapu times to protect resource were identified as one way to manage the resources.

Park Name- Kekaha State Park

TASK FORCE TO DEVELOP SPECIFICS FOR MAHA'I'ULA INTERESTS:

Konohiki System - Hannah Springer
Kaelemakule Family

Fishermen
Recreational Users (surfers, kayaks, hikers)
 Outrigger Canoe Clubs
Kona Hawaiian Civic Club
Adjacent landowners
 KS/BE
Keoki Magoon
Protect Kohianaiki

How will the Task force be chosen? What are the criteria?

MANINI'OWALI COASTLINE/NEARSHORE RECREATIONAL WORKSHOP

May 1992

Final Questionnaire Results

Activities which respondents felt occur "very frequently"

(See next page for more detail.)

Manini'owali	Awake'e	Makalawena	Mabai'ula
Bodysurfing and bodyboarding Swimming and sunbathing Snorkeling and scuba diving Fishing, pole and thrownet Fishing, spearing Hiking Overnight camping	Swimming and sunbathing Snorkeling and scuba diving Hiking	Swimming and sunbathing Snorkeling and scuba diving Fishing, pole and thrownet Fishing, spearing Hiking Overnight camping	Surfing Swimming and sunbathing Snorkeling and scuba diving Fishing, pole and thrownet Fishing, spearing Hiking

2. Each area along this shoreline has its own personality. Some areas have beaches and swimming areas which can be safely enjoyed by the general public. Some areas are more challenging and should be used by more experienced and knowledgeable ocean users. There are also some areas that have very special natural or environmental features which should be preserved.

How do you think these different areas should be used? Please check one response for each area.

	Manini'owali	Awake'e	Makalawena	Mahai'ula
Uses should include normal beach park activities such as swimming and other ocean sports, sunbathing, and picnicking. Facilities may typically include paved parking lots, restrooms, showers, picnic tables and landscaping.	Highest frequency 71%	38%	Highest frequency 46%	Highest frequency 67%
Uses should be limited to food gathering and a few forms of recreation. This may typically include some automobile access and a parking area.	24%	Highest frequency 40%	35%	26%
Uses should be very limited to preserve the area. This may typically include walking and hiking trails.	5%	21%	20%	7%

6. Where do you think the parking stalls should be located? Please check one.

- 14% A. Parking should be right next to the beach for convenience.
- 33% B. There should be a drop-off area near the beach, but parking should be away from the shoreline.
- 53% C. To keep the natural setting, parking should be away from the beach with a foot trail to the beach.
- 0% D. Other:

7. What kinds of facilities do you think should be located at Manini'owali? Check as many as you wish.
(Percent of total responses)

96% A. Restrooms	K. Other:	Small scale for 100 to 200 users
80% B. Showers		Shade trees
65% C. Picnic tables		Trash receptacles
51% D. Barbeque grills		Boat mooring pins in coral areas
43% E. Bicycle parking		Lifeguard
47% H. Information center with maps, information, etc.		Walking trails
		Ability to secure area
		Campsites
		Pay phones
		Small stores

October 30, 1995 .

Dear Task Force Member:

**Kona Coast State Park
Task Force Meeting No. 1**

The first meeting of the Kona Coast State Park Task Force has been scheduled for Wednesday evening, November 15, 1995, from 6:30 p.m. to 8:30 p.m. at the Old Kona Airport State Recreation Area Special Events Pavilion.

Enclosed is a list of Task Force Members. An agenda and background information will be sent to you shortly. We look forward to meeting you and working with you in planning the Kona Coast State Park.

Aloha,

/s/ RALSTON H. NAGATA

RALSTON H. NAGATA

Enclosure

SS:ss

**DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS
Kona Coast State Park
Task Force Members**

Official Members

<u>Interest in Park</u>	<u>Name & Address</u>	<u>Contact/ Telephone</u>
Adjacent Landowner	The Kaelemakule Family c/o Agnes Kaelemakule Lui 76-6217 Lehua Road Kailua-Kona, Hawaii 96740	(808)329-2370 Alt. Representative Nicole K. Lui (808)329- 2370
Adjacent Landowner	Mr. Bob Lindsey The Kamehameha Schools/Bishop Estate 78-6831 Alii Drive, Suite 232 Kailua-Kona, Hawaii 96740	(808)322-5313
Adjacent Landowner	Mr. Michael Hands North Kona Development Gp. 235 Kulamanu Place Honolulu, Hawaii 96816	737-1660
Adjacent Landowner	Mr. Milton Morinaga, General Manager Huehue Ranch Associates, L.P. P.O. Box 348-359 Waikoloa, Hawaii 96838	Contact Representative James Leonard at PBR Hawaii (808) 961-3333 Alt. Representative Thomas Witten, 521-5631
Cultural/In- terpretative	Kona Hawaiian Civic Club Attn: Ms. Leimana DaMate P.O. Box 4098 Kailua-Kona, Hawaii 96745	(808) 329-7369 (at OHA)
Cultural/In- terpretive	Ms. Hannah Kihalani Springer 72-3403 Mamalahoa Highway Kailua-Kona, Hawaii 96740	(808) 325-6175
Cultural/Natural Resources/ Management	Protect Kohana Iki Ohana c/o Ms. Karen Eoff P.O. Box 1602 Kailua-Kona, Hawaii 96745	(808) 325-6175

**Kona Coast State Park
Task Force Members**

Cultural/ Recreation	Moku o Hawai'i Racing Association, Attn: Ms. Maile Mauhili, President 395 Todd Avenue Hilo, Hawaii 96720	(808) 934-8449
Natural Resources/ Recreation	Sierra Club West Hawaii Chapter Attn: Mr. C.J. Villa 75-6100 Alii Drive C36 Kailua-Kona, Hawaii 96740	(808) 329-6753
Natural Resources/ Recreation	Na Ala Hele Advisory Council Hawaii Trail & Access System Attn: Chair Cathy Lowder 134 Ualehua Street Hilo, Hawaii 96720	Representative Robert Okawa at (808) 322-7011 (bus. 322-7011); Alt. Representative Michael Tomich (808) 325-5126
Natural Resources/ Recreation	Big Island Casting Club Attn. Mr. Michael II P.O. Box 4272 Kailua-Kona, Hawaii 96745	(808) 322-0637
Commercial Recreation	T.O.R.C.H. The Ocean Recreation Council of Hawaii-Hawaii Island Attn: Mr. Larry Mitchell P.O. Box 591 Holualoa, Hawaii 96725	(808) 324-6603 Alt. Representative Teri Leicher (808) 325- 6681
Commercial Recreation	Kona-Kohala Chamber of Commerce Attn: Ms. Marni Herkes, President 75-5737 Kuakini Hwy, Suite 207 Kailua-Kona, Hawaii 96740	(808)329-1758

Kona Coast State Park
Task Force Members

Ex-Officio Members

Govt. Agency	Mr. Owen Miyamoto, Administrator, State of Hawaii, Department of Transportation, Airports Division, Honolulu International Airport 400 Rodgers Blve., Suite 700 Honolulu, Hawaii 96819-1989	838-8600 Representative Frank Kamahale in Kailua-Kona at 329-2484
Govt. Agency	Na Ala Hele State Of Hawaii Department of Land and Natural Resources Division of Forestry & Wildlife 567 South King Street, Suite 132 Honolulu, Hawaii 96813	Representative Rodney Oshiro in Hilo at 933-4221
Govt. Agency	SeaGrant Extension Service West Hawaii Extension Service Attn: Ms. Sara Peck P.O. Box 2523 Kailua-Kona, Hawaii 96745	(808)322-2044
Govt Agency	Office of Hawaiian Affairs Attn: Mr. Dante Carpenter, Administrator 711 Kapiolani Blve., Suite 500 Honolulu, Hawaii 96813	Honolulu: 594-1888 Kona: (808) 329-7368 Leimana DaMate or Ruby McDonald

Kona Coast State Park
Task Force Members

Resource Agencies/Organizations

- | | | |
|--------------|---|--|
| Govt. Agency | Division of Aquatic Resources
Department of Land and
Natural Resources,
Attn: Mr. Eric Onizuka,
Acting Administrator
1151 Punchbowl Street, Rm 330
Honolulu, Hawaii 96813 | 587-0090
Hilo:
(808) 933-4501 |
| Govt. Agency | Division of Boating and Ocean
Recreation, Department of
Land and Natural Resources
Attn: Mr. Dave Parsons,
Administrator
Melim Building
333 Queen Street, Suite 300
Honolulu, Hawaii 96813 | 587-1966 |
| Govt. Agency | State Historic Preservation
Division, Department of Land
and Natural Resources
Attn: Mr. Don Hibbard,
Administrator
33 South King Street, 6th Floor
Honolulu, Hawaii 96813 | 586-0047, Contact
Ross Cordy at 587-0012 or
Marc Smith in Hilo at
(808) 933-4345 |
| Govt. Agency | Division of State Parks
Department of Land
and Natural Resources,
Attn: Mr. Ralston Nagata,
Administrator
1151 Punchbowl Street, Rm 310
Honolulu, Hawaii 96813 | 587-0300
or Charles Supe in Hilo
at (808) 933-4200;
Alt. Representative
Nathelda V. Jensen
(808) 329-5792 |

**KONA COAST STATE PARK
TASK FORCE MEETING NO. 1
AGENDA**

**Wednesday, November 15, 1995
6:30-8:30 P.M.
Old Kona Airport State Recreation Area
Special Events Pavilion**

Opening of the Meeting

Sustaining Wilderness Areas
Michael D. Wilson
Chairperson Department of Land and Natural Resources

Meeting Organization
Alice Paet-Ah Sing, Facilitator
The Judiciary Center for Alternate Dispute Resolution

Task Force Approach
Sherrie Samuels
State Parks Planner

The Conceptual Plan
Francis Oda
George Atta
Group 70 International, Inc.

**Information Gathering and Discussion of
Phase 1 Development Plan at Maha'ula**
The Task Force

**Summary &
Preparation for the Next Task Force Meeting**
Alice Paet-Ah Sing

Closing
Sherrie Samuels

RECEIVED AS FOLLOWS

1995/1

Kona Coast State Park

Task Force Meeting No. 1
November 15, 1995, 6:30-8:30pm

Name	Organization/Agency	Telephone
Walter Lee	Kahelemahele Journal	329-3370
Chin...		329-2370
Kona Club		325-7576
Frank...	DOT Airports	329-2704
Wm...	DNR	326-4824
Neil...	DNR State Parks	329-6241
John...	DNR State Parks	933-4200
...	DNR State Parks	587-8772
Lin...	Basil Collins Hawaii	521-5351
Man...	DNR Historic Preservation	933-4346
...	DNR	329-4111
Richard...	IDEAW - Na Ala Hele	933-4221
Larry...	TOPEH - The Ocean Recreation Board	329-6603
Chris...	B DNR	935-4434
CJ...	WFS - Humez Seaside Club	329-6753
Robert...	Kona Kohala Chamber of Commerce	325-0808
...	Kona Kohala Chamber of Commerce	329-1158
...
...	Na Ala Hele How To Group	813-221-1011
...	Group 70 International	...
...	Group 70 International	522-5866
...	STATE PARKS	529-0289
Michael...	...	329-0400
Nancy...	Forest Conservation Group (Green Leaf)	329-1498

Honorable Chairman Spi Logoi
State Parks

Representing the Family
State Parks

329-5176
329-0295

Department of Land & Natural Resources

Division of State Parks

Kona Coast State Park- Task Force Meeting No. 1

November 15, 1995

6:30 p.m. - 9:00 p.m.

Old Kona Airport State Recreation Area

Special Events Pavilion

GROUP MEMORY

Welcome/ Introductions

The meeting began with a welcome by Sherrie Samuels from the DLNR Division of State Parks. Chairperson, Mike Wilson was welcomed and introduced. Alice Paet-AhSing and Amy Luersen from the State Judiciary's Center For Alternative Dispute Resolution served as the group's facilitator and recorder. Project Team members include: Sherrie Samuels, DLNR Division of State Parks, Francis Oda and George Atta, Group 70 International. The following were present:

TASK FORCE COMMITTEE MEMBERS

Agnes K. Lui	For the Kaelemakule Family
Nicole Lui	Alternate for Kaelemakule Family
Larry Mitchell	The Ocean Recreation Council of Hawai'i
CJ. Villa	Sierra Club, West Hawai'i Chapter
Marni Herkes	Kona-Kohala Chamber of Commerce
James Leonard	Huehue Ranch Associates
Bob Okawa	Na Ala Hele Advisory Council, Hawai'i
Norman & Olga Nauka	Protect Kohana Iki Ohana
Hannah Kihalani Springer	Cultural/ Interpretive Perspective

EX-OFFICIO MEMBERS

Rod Oshiro	Na Ala Hele, State of Hawai'i
Frank Kamahele	Hawai'i Department of Transportation

RESOURCE AGENCIES/ORGANIZATIONS

Charles Supe	DLNR State Parks
Gary Moniz	DLNR DOCARE
Barney Espinda	DLNR Boating & Ocean Recreation
Marc Smith	DLNR State Historic Preservation Division

OTHER COMMUNITY MEMBERS & RESOURCES

Fern Puli	Kaelemakule Family
Lee Sichter	Belt Collins Hawai'i
Chris Yuen	Board of Land & Natural Resources
Roger Harris	Kona Kohala Chamber of Commerce
Nel Jensen	DLNR State Parks
Morris Ota	DLNR Water & Land Development Office
Dan Quinn	DLNR State Parks

Sustaining Wilderness Areas

Chairperson Mike Wilson provided the group with an overview of the State Department of Land and Natural Resources' ten divisions. Chairperson Wilson explained that his responsibilities included work with the Water Commission as well as the administration of two million acres of conservation land. He spoke about DOCARE's responsibility for enforcement on two million acres of land as well as along the coast around the Hawaiian islands, and the Harbors Division responsibility for fifteen areas.

With the many resources that DLNR is responsible for, he states that the overall philosophy is one of sustainability. DLNR is only here for a short time and is viewed as stewards to care for the land for future generations, with efforts focused on sustaining our resources. Chairperson Wilson reflected on the great weather and miracle water as well as the people and culture that are a part of the wealth of Hawai'i's resources, the best resources on earth, yet faced with the challenge of being stewards of the land especially in a period of budget cutting. He continued to discuss budget cuts and employee numbers and expressed his fear of further cuts.

The chair compared the state's Aquatic Division to the eighteen other states that manage aquatic resources. Hawai'i is the fourth largest in resources and have only half of the funding that Wyoming has for their Division. Hawai'i's program is small, fledgling, an example that there is a lack of cultural awareness of sustaining our resources. In the State of Hawai'i, there is less than half of what other states have to deal with a greater amount of resources. He also mentioned that the Ehu and Onaga seem to be disappearing, but that there are on-going meetings with fishermen to discuss cooperative efforts to keep the resources.

The Kona Coast State Park is representative of the wealth of resources that Hawai'i has, it is a symbol. The park has a very powerful natural ingredient that can't be found anywhere else. The Kona Coast is an area that has not been settled in since ancient Hawai'ian times. It symbolizes the kind of resources that DLNR needs to preserve and is the essence of what DLNR is all about.

Chairperson Wilson introduced the park ambassador concept. In Kauai, 6000 acres make up the Kalalau Wilderness Park, a place that abounds with resources.

The Division of Parks has been stretched, and as a consequence, DLNR had not been able to take care of the area. There was realization that there needed to be a presence on site. DLNR had help from the community and the project evolved from there, working with all the aspects of DLNR. Chairperson Wilson recollected that meeting after meeting, everyone had a vision of what was needed. The citizens' ohana went to its constituents and their legislature requesting a position that would become a presence in Kalalau. And it was important that a good person be picked. They were successful.

Chairperson explained that the State cannot do a job unless they work with the community. It is the citizens' ohana that manage and protect the park.

Wilson exclaimed that it has been a "tremendous privilege to be in my position, but it's just a short life, the program in place will be in place for years to come." He had hoped to share some slides of our resources. He continued to say that "we have the chance now, with a precedence set by the park ambassador."

He acknowledged the Kona Coast State Park work being done by Group 70 and the community. He encouraged the community to consider working together to request for their own park ambassador. With the upcoming legislative session in January, the community could work towards requesting a person to have a presence in the Kona Coast State Park, "a person to malama the entire area, a person who we respect and who respects the resources."

Chairperson Wilson continued to say that as he looks at the reports and comments, he is saddened. He asks himself, how will this happen? As he understands it, everything is up for grabs. He went on to say that this is our opportunity to come up with a plan, that this is not just wishful thinking, there can be an actual presence in the park.

There was acknowledgement that there has been community sentiment to stay with a low intensity concept for the park. The chair has met with aquatics and various business interests to learn and discuss about opportunities to best use the resources.

Chairperson Wilson concluded with a reminder that we have a timetable to work with, and it is hoped that by December, we would be able to work through our own agreements, craft a vision, and go to the Legislature. DLNR, he says, is not asking for much and won't ask for an ambassador position unless the community wishes to implement such a concept for Kona.

Chairperson Wilson requested and participants agreed that we deviate/be flexible with the evening's agenda in order to get community participants' comments regarding the park ambassador concept for the Kona Coast State Park:

- A major benefit is education. People do not usually know that they are damaging the area or creating a problem. People usually voluntarily adjust their behavior if they realize that their activities impact/threaten the resources.
- It is clear that people prefer the low intensity conceptual plan. The key is programmatic and management aspects.
- It seems appropriate to talk about an ambassador concept. The plan cannot be independent of management. The ambassador concept is similar to a konohiki idea. It personalizes management.
- There is concern over what people are doing (e.g., changing/fixing trails, littering, human waste.) Although supportive of the ambassador concept, funds are an important aspect that will play into the whole concept. If you create an

access (the Alakahakai) there will be a need for education and we will need to mitigate the problems associated with people impacts.

- It will be essential that there not only be a presence but that the management plan is enforced.
- There is a principle concern for cultural resources, especially burial sites and hatcheries and fisheries. As we see increased efforts in areas where the small fish go, there is concern for those areas, the rubble tidal and the calmness of the bay. It is important to protect young fish habitats. We have looked for decades on having access but we have not considered the impacts to cultural practices. Also, as safety amenities are installed, it will be important to preserve the visual view planes for cultural practitioners.
- Good idea, and granted, having a presence will help with vandalism, but there is concern that one person cannot effectively accomplish what needs to be done with such a large area to cover, to include near shore as well as aquatic aspects. There will be a need for extensive community participation.

Wilson: In Kauai, to address the needs for the vegetation, it was necessary to recruit volunteer help. Volunteers were enlisted, they camped and completed two to three classes. What they have now is a volunteer program where there is a volunteer three to four days a week that does the work needed with the ambassador, Jordan Jokiel. There is no question that more than one person will be needed, but it will be difficult to get just one more position. But it would be something everyone can feel good about.

- The idea is great, I cut out the article about Kalalau. It was a good effort to bring the community together and have a person on site to shepherd and monitor activities. There is a worry that a home rule stance is developed and in going to the legislature, funds coming from the legislature come with control. There are areas where funds can be recovered for these purposes where we would not have to be subject to such control. Having a physical presence is important to teach, guide, and be watchful.

Wilson: What the State can do is provide some ability for resources like this. The ability to do it well will take some of the ideas just offered. With this kind of community, the government can assist as a facilitator for help.

- Support the idea of an ambassador position. Have come to listen and learn. As a planning consultant, it seems that there are some good ideas coalescing, and am interested in seeing the concept work to manage the resources.

- Having a presence is important, a person who has the respect of the community. A person that protects not only the resources but the other resources needed to keep the park a viable venture. The ambassador needs to be a responsible person, a person that the community gets behind and supports. This plan needs to be a community project, where we look at what, how, and why we want to do it.
- Great opportunity for integrated resource protection.
- There is no question that taking care of the area is critical. It is a concern that the way it is done considers the sentiments of the Hawai'ian people. But one person is not enough, and there is not enough money for the amount of people/help needed. Suggest that the native Hawai'ian community be considered as the ambassadors. There are native Hawai'ian community members with a willingness to do the work needed, manage the resources of a large area, and be able to accomplish this without getting money from the State.
- I was going to volunteer for the job. But one person will need help. We need someone who can solicit help and organize the community.
- My family, the Lu'is should be down in Mahai'ula. The Kaelemakule family should be the ambassadors. Family members can help.
- What I know is what I have read in the papers. Born in Napo'opo'o and have heard of plans that have never gone forward. I've come to share the story of this place. I am with spiritual connections of our Hawai'ian ancestors, some of whom have lost some of the aina. The last known title search reveals Solomon Kaelemakule as the owner of the land in Mahai'ula. James Ako, an attorney, and Mr. Magoon came to see Solomon with threatening pressure to sign an agreement of sale for the property. The papers were signed with an "x". The intent is for the family to get back what is rightfully theirs. This group can do what it wants to do, the Kaelemakule family will also do what it needs to do and see what perhaps can come to be. We do not intend to get in the way of any community effort, what is being done is good. But Tutu are buried there and is not a wonder that Tutu has not allowed any development to occur there. Suggest that if anything is to be done at Mahai'ula, that you talk with the family. Agnes is the daughter of Solomon Kaelemakule.

Wilson: We hope for guidance from the family to protect that area, the land and resources.

- Agnes reminisced, "It hurts to think about how the family lost the land. It is too painful to go back there. But thoughts are with the community and plans for Mahai'ula." She remembers that there was a place to fish and play, that there is a grave for family members, and the upside down pineapples. But after having heard her father's story, she hasn't been able to return, it hurts too much. She

feels fine about having an ambassador and the community's help. "We need community, for others may be akamai in one thing and I am akamai in another."

- The only way we are going to have the Hawai'i we grew up with and have enjoyed, is if we foster a spirit of connection. Aloha aina, a sense of having a connection with the place, a human dimension I think we can do here. Having a person here that embodies this sense of connection and what we are trying to accomplish seems right. The lack of money is always an obstacle, but it also presents an opportunity to self manage. DLNR does not want to make a lot of orders for running Kona, DLNR would be delighted if the community could do it. It has always been a personal intent to keep development at a minimum. There are a lot of practical on the ground things that we can do. Having a person to communicate/coordinate with will be helpful. Having made the area accessible to more people, we need to take care of what is necessary to handle the flow of people.
- Protection and enforcement is key.
- From a management point of view, it would be good to have someone there because of vandalism. Keeping the plan on a humane level/way is a way to be in touch with the cultural perspective and remain sensitive to the families involved.
- The ambassador terminology is a little benign. Wanting to open up the area to the public is like a double edge sword because people will bite you back (i.e., problems and impacts e.g., trash.) I was thinking of a person that would be more like a park ranger so that the enforcement aspect is included.

Wilson: The ambassador position would not include enforcement capabilities. The approach is management through goodwill, care and respect of the resources. If this is something that does not work for Kona, then there should be discussion on management with/by enforcement.

- Voluntary compliance is important. A kupuna element would be important. The concept of management through goodwill, care and respect for the resources would be more effective than having a DOCARE officer.
- Being with the Protect Kohana Iki Ohana (PKO), I have heard such stories. I share and advocate the family's sentiments on management in the konohiki way, and looking to the community for support for whatever needs to be protected and monitored. There have been many experiences in dealing with new landowners and having to give up resources that were very much a part of sustaining our lifestyle. Working with the community can happen in many ways, much like personal experiences working with foster children and special education children. If given something to do and be responsible for, a person

takes this very seriously and grows. Access to NELH, O'oma and Kona'iki has worked through self monitoring efforts, efforts of the PKO and community members. Volunteerism and communication by word of mouth has and can be successful. The biggest fear is that there is further condemnation of lands which are later sold to developers. A park ranger concept puts a person "out of their jurisdiction". When one sees a badge, people react or respond by being crazy. It seems that a one to one discussion is more effective. To deal with anger and violence, one remedy has been to throw the perpetrators in the water to cool off. Am quite frustrated with teaching and education, Family is important, and can be successful in management through implementation with groups/clubs.

- A participant asked Agnes Kaelemakule if she would move her family to the area and malama the land. Agnes' response was that she would do this for free, if a house was put up, she would move in and take care of the land.
- It is obvious that we have a rare opportunity to take care of the resources, and guard them against ourselves. A public/private partnership is preferred rather than being chained to the consequences of funding through the State and not having trust in the State to provide adequate resources for protection.
- A resource management plan needs to be in place first.
- I feel that first I must be a student of the ambassador. Although I have been trained in the western style, I value what is said by those who have lived close to the resources. I see the biggest task as putting a finger on/understanding the resources. A resource subcommittee should be established to bring suggestions to the public. Secondly, I must be a teacher. I have given my eyes and ears to students. People can claim the resources belong to the public, and the concern is that everything is kapu. Habitat protection is important. Without habitats, we lose the resources. Having projects (e.g., nursery habitat program involving public participation in the release and recapture of young fish) and including the community gives people a sense of membership. I offer this element with the community and Hawai'ian community.
- We should be planning for 20 - 30 years and not for 2 - 3 years. The ambassador concept is a good one, provided you get the right person.

In consideration of time constraints, participants were asked agreed that it would be important to cover a few other planned agenda items and adjourn. Other agenda items will be worked into the next meeting's agenda.

Conceptual Plan

Francis Oda of Group 70 International presented a brief overview of the conceptual plan for the Kona Coast State Park. Early in the planning process, Group 70 decided to look at the park in terms of ahupua'a. Each ahupua'a is different but all come to the same point in the mountain, a cave that was the source of fresh water. Based on

consensus at previous meetings, community sentiment was that the levels of use should approximate the levels of current use and plans should be developed using that as a base. The following does not represent a final plan, just a conceptual stage.

Mahai'ula/Kaulana: Elements include restrooms, two wheel drive paved road, parking area, interpretive facility and a caretaker.

Awake'e: Relatively primitive, four wheel drive access road and gates.

Manini o wali: Two wheel drive road with gates to control access. Kua Bay developer has committed funding for improvements, roadways, parking, and toilets. Plans need to include sensitivity to archaeological areas near the beach.

Participants were asked to review the conceptual plan and be prepared to discuss elements of the plan at the next meeting. Group 70 will reduce that map and distribute to task force members at the next mailing.

Phase I Development Plan at Mahai'ula

George Atta of Group 70 International briefly reviewed materials that were mailed out in the packets (Mahai'ula/Kaulana). The State is considering a day mooring which would extend the ahupua'a further out into the ocean.

Lists of the historical/cultural resources, natural resources, and recreational uses at Mahai'ula were presented for review (included in packet of materials). Participants were asked to review these lists for changes/additions and to begin another list of traditional and customary uses of the area.

Task Force Members' Role & Meeting Procedure

Initial basic group member rules and roles were discussed. It was agreed that the official list of task force members be the core group in future discussions, and that although agreements and recommendations are made at the core group level, community participation and input is welcome. A task force community member would be the proper vehicle for relating and sharing general community comments and input. Task force members also agreed to operate collaboratively by consensus and that various levels of consensus would be acceptable. Task force members will consider other fall back mechanisms to be discussed/reviewed at the next meeting.

Next Meeting

It was suggested and agreed to have the next meeting at Mahai'ula Bay, on Wednesday, December 6, 1995, 9:00a.m. - 11:00a.m., Potluck lunch to follow.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

December 1, 1995

CHAIRPERSON
MICHAEL D. WILSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Dear Task Force Member:

**CANCELLATION OF
Kona Coast State Park Task Force Meeting No. 2**

Our second Task Force meeting scheduled for Wednesday, December 6, 1995 from 9:00 am to noon at Mahai'ula, has been cancelled. Chairperson Mike Wilson asked that we reschedule the second meeting because he cannot attend the meeting due to an on-going contested case hearing. We hope to reschedule the second Task Force meeting during January 1996. We apologize for any inconvenience that the cancellation of the December 6 meeting has caused.

We have enclosed a copy of the Draft Conceptual Master Plan, prepared by the consultant, Group 70-International, Inc., for your review and use in working on the Phase 1 Development Plan for Mahai'ula at the next Task Force meeting. This version of the draft Conceptual Master Plan responds to the community's request for low level park use throughout the park.

You may recall that the Task Force was also assigned "Homework" at the last meeting. The homework includes the following items to be discussed at the next meeting:

- Make a site visit on your own to observe the area and how people are using the park.
- Review the attached Management Needs List and provide any additions that you think are appropriate.
- Review the information packet sent to you for the first meeting and provide any additional information you think is appropriate on historical and cultural resources, natural resources and recreational uses in the park.
- Develop a list of traditional and customary uses of the park area.

Again, we apologize for any inconvenience that the meeting cancellation has caused. Please call Sherrie Samuels in Honolulu at 587-0296 if you have any questions. We look forward to working with you and continuing the Task Force planning process in 1996.

Sincerely,

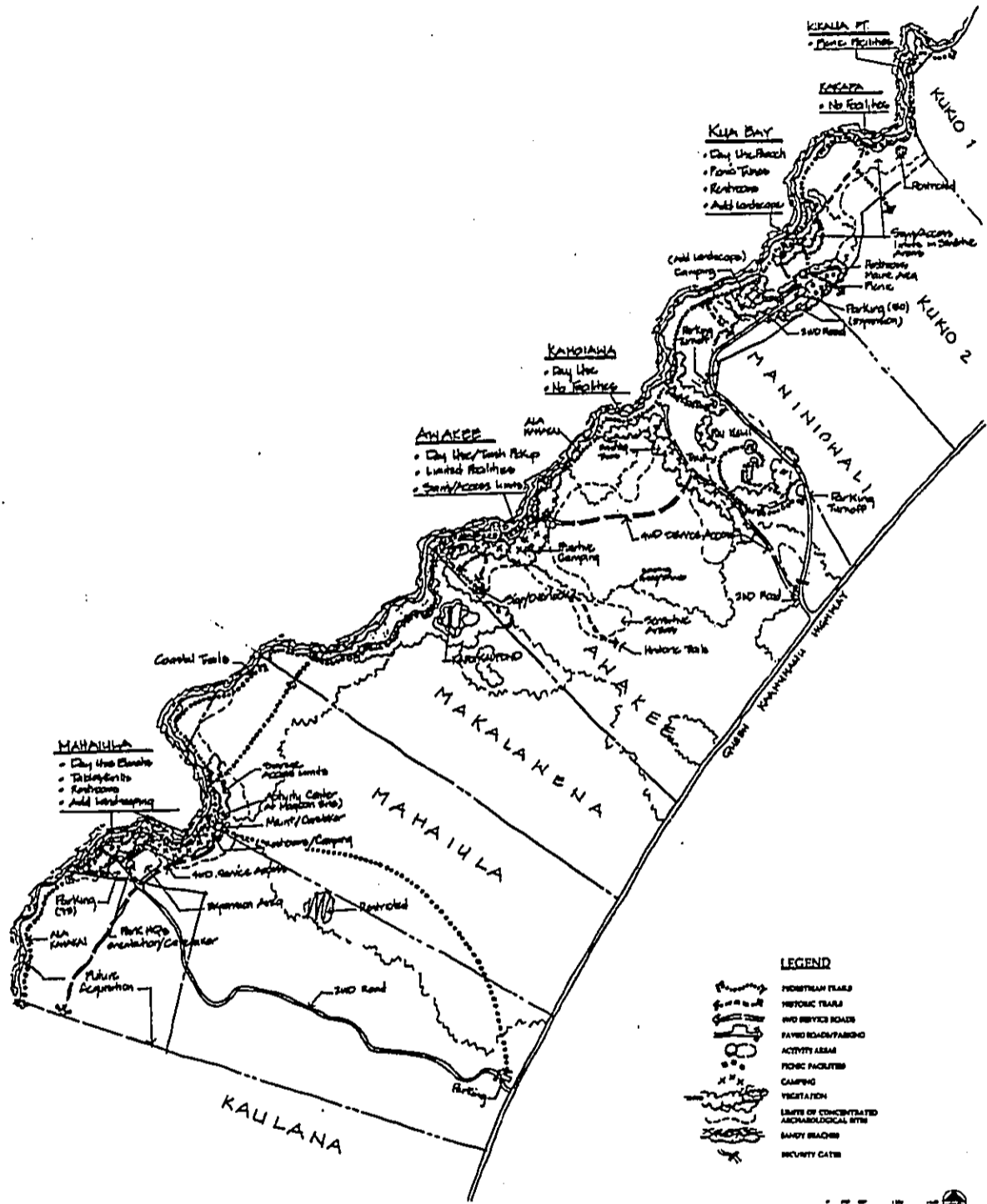
A handwritten signature in black ink, appearing to read "Ralston H. Nagata".

RALSTON H. NAGATA

Enclosures

Management Needs for the Mahai`ula Development Plan

- Park ambassador program
- Live-in caretaker
- Friends of the Park
- Ohana mangement
- Community authority
- Konohiki style manager
- Ahupua`a management system
- Liability if non-State management
- Treatment of cultural/historical sites
- Use of the Magoon house
- Opening and closing times (access)
- Open daily vs. closing one or two days a week (kapu times)
- Night access to fishing and camping spots
- Park maintenance/trash pick-up
- Lifeguards at Mahai`ula and Maniniowali
- Marine resources management plan
- Management of parking areas
- Type of camping
- Friction between campers and day users.
- Overfishing
- Protecting traditional practices
- Pollution of ponds
- Type of wastewater/sewage system
- Education/interpretive components - docent program, signage
- Relationship to management of remainder of the Park
- Day moorings and ocean activities
- Monitoring water sources and uses
- Endemic and indigenous species management
- ADA access and management
- Allowed and restricted uses



BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

January 30, 1996

C O P Y

CHAIRPERSON
MICHAEL D. WILSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
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CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Dear Task Force Member:

Kona Coast State Park
Task Force Meeting No. 2

Happy New Year to you and your family. We hope that your holidays have been merry, yet peaceful. We now look forward to a productive and rewarding 1996 !

As the enclosed agenda indicates, our second Task Force meeting has been rescheduled for Saturday, February 24, 1996 from 9:00 AM to Noon. The second meeting will be held at the Kona Coast State Park, at the Mahai'ula Pavilion (the two story structure).

Enclosed with this letter is a copy of the group memory for the first Task Force meeting. In our letter of December 1, 1995, we provided a copy of the draft Conceptual Master Plan for your review, a Management Needs List, as well as assigned "Homework". Your homework included the following items to be discussed at the upcoming meeting:

- Make a site visit on your own to observe the area and how people are using the park.
- Review the Management Needs List and provide any additions that you think are appropriate.
- Review the information packet sent to you for the first meeting and provide any additional information you think is appropriate on historical and cultural resources, natural resources and recreational uses in the park.
- Develop a list of traditional and customary uses of the park area.

On the day of the meeting, Saturday, February 24, after you drive down the road to Mahai'ula, you will find the gate leading to the Pavilion open and a sign indicating

the direction to the Task Force meeting. Turn right, and carefully go down the road to the Pavilion and park in the area behind the Pavilion. (We say "carefully", since there are a few bad dips in this road that can cause vehicles with average ground clearance to hit the ground).

Finally, as originally planned, we would like this second Task Force meeting to be a "pot luck" meeting. We're all looking forward to some good Kona cooking and to a successful Task Force meeting. Mahalo for your participation and continuing support.

Sincerely,

Wilson & Coloma-Cagan
for MICHAEL D. WILSON

Enclosures: Meeting No. 1 Group Memory
Meeting No. 2 Agenda

KONA COAST STATE PARK TASK FORCE MEETING NO. 2

Saturday February 24, 1996
9:00 am - 12 Noon
Pavilion at Mahai'ula

AGENDA

- Opening of the Meeting
- Task Force Process and Products
Alice Paet-Ah Sing, Facilitator
The Judiciary Center for Alternate Dispute Resolution

- Park Ambassador: Status
- Repair and Renovation of the Mahai'ula Structures and
 - The Park 'Ohana Concept
Michael D. Wilson, Chairperson

Background Information on
Mahai'ula
George Atta
Group 70 International, Inc.

Homework Items/Discussion
The Task Force

Major Components of
the Phase 1 Development at Mahai'ula
George Atta

Management Issues/Discussion
The Task Force

Summary
Preparation for the Next Task Force Meeting
Meeting Closing

Lunch

Department of Land and Natural Resources

Division of State Parks

Kona Coast State Park - Task Force Meeting No. 2

February 24, 1996

9:00 a.m. - 12 Noon

Pavilion at Mahai'ula

GROUP MEMORY

Welcome / Introductions

The meeting began with a welcome and thank you to Task Force members by Mike Wilson, Chairperson of the Department of Land and Natural Resources (DLNR). Chairperson Wilson expressed his hope that this accelerated effort will take care of the Kona Coast. He explained that after cutting \$4.2 million from the DLNR's budget, it is important to get some idea of the resources in the State. Having prioritized the state's resources, there seemed to be places not on the road to future sustainability. DLNR has prioritized the state's resources which has provided an idea as to which way to go and what needs to be done. The need to preserve the Kona Coast is a high priority for DLNR. During the current legislative session, DLNR is requesting a Park Ambassador position for the Kona Coast similar to the Park Ambassador position successfully established for the Na Pali Coast on Kauai. He thanked everyone for their hard work and explained that it was very important to hear everyone's mana'o. He noted that this special project renovation will need approximately \$400,000 to \$500,000.

Participants were asked to introduce themselves. The following were present:

TASK FORCE COMMITTEE MEMBERS:

Marni Herkes	Kona-Kohala Chamber of Commerce
James Leonard	PBR Hawai'i
Hannah Kihalani Springer	Cultural/Interpretive Perspective

EX-OFFICIO MEMBERS

Frank Kamahele	Department of Transportation, State of Hawai'i
Karen Klein	SeaGrant Extension Service
Rod Oshiro	Na Ala Hele, State of Hawai'i

RESOURCE AGENCIES/ORGANIZATIONS

Nathelda Jensen	DLNR State Parks
Francis I. Kuailani, Sr.	National Park Service
Charles Nahale	DLNR Conservation and Enforcement
Bob Nishimoto	DLNR Aquatic Resources
Barney Espinda	DLNR Boating and Ocean Recreation
Charles Supe	DLNR State Parks

Aulani Wilhelm
Mike Wilson

DLNR Public Information Officer
DLNR Chair

OTHER COMMUNITY MEMBERS & RESOURCES

Sharon Ackles
Roger Harris
Lynn MacIntosh
Fern Pule
Monty Richards

Kona-Kohala Chamber of Commerce
Kona Kohala Chamber of Commerce
Kona-Kohala Chamber of Commerce
Kaelemakule Family
Kona resident; Commission on Water Resource
Management
Board of Land & Natural Resources

Chris Yuen

CONSULTANT

Francis Oda
George Atta

Group 70
Group 70

STAFF

Dan Quinn
Sherrie Samuels

DLNR State Parks Assistant Administrator
DLNR State Parks Planner

Task Force Process and Products

Alice Paet-AhSing and Karen Takahashi served as the group's facilitator and recorder from the Judiciary's Center for Alternative Dispute Resolution. Alice explained that this was the second Task Force meeting. The facilitator and recorder's roles were explained. The importance of Task Force member comments/input was impressed. It was noted that Task Force members' role are to provide their mana'o and guidance in the development plans for the Kona Coast State Park.

Task Force members should have received a cover letter and a copy of the draft group memory for the first Task Force meeting. Task Force members should have also received a copy of the draft Conceptual Master Plan and a management needs list. Homework/discussion items were also listed. Task Force members were asked to offer any substantive changes/additions to the group memory by contacting Sherie Samuels of any corrections within a week.

A quick review of the last Task Force meeting was provided. The Task Force was fortunate to have Chairperson Mike Wilson speak on DLNR programs and the efforts for sustaining wilderness parks. Task Force members and meeting participants commented on the possibility of having a Park Ambassador concept for the Kona Coast State Park. Many of the comments pointed to the needs for the park in terms of management of the parks resources and included a variety of ideas for management, protection, and enforcement.

Task Force Members were also given a brief overview of the conceptual plan by Franics Oda of Group 70 based on community sentiment heard at previous community meetings, and how Group 70 has viewed and planned the park in terms of Ahupua'a. It was also noted that the community had expressed that the park should be developed or fixed to accommodate current uses and that management needs are an important aspect of development plans for the park. It was the hope that the conceptual plan does this.

To assist in this stage of planning, lists of historical/cultural resources, natural resources, and recreational uses had been presented. As homework Task Force members were asked to review these lists and be prepared to discuss additions/changes and additionally list traditional and customary uses.

The focus of the meeting was to complete discussion of the various lists for purposes of park plan development. Task Force members would then have an opportunity to discuss and provide input on the conceptual plan elements (e.g. restroom facilities, parking, roads, etc.) that would accommodate the current level of use and be part of a development plan the community would be able to live with.

Task Force members were also asked to make a site visit prior to this meeting to observe how people are using the area, and the level of activity. Finally, a management needs list had been provided and Task Force members were asked to be prepared to provide any additional information on needs.

The agenda was reviewed and participants reaffirmed their ground rules:

- Agreements and recommendations are made at the core group level. Community participation and input is welcome. Task Force members should relate comments from their fellow community members.
- The group has agreed to work collaboratively to reach the highest level of consensus.
- It's okay to disagree. Identifying these points will alert the project team on what needs to be worked on.
- Task Force members are encouraged to be concise.
- Be polite and allow the speaker to speak.
- Everyone participates, has an opportunity to speak if they want to.

**Park Ambassador Status
Repair and Renovation of the Mahai'ula Structures and
The Park 'Ohana Concept**

Chairperson Wilson reported that DLNR is working on getting a Park Ambassador for the Kona area. As envisioned, the position will require someone with skills dealing with the public in addition to physical abilities (i.e., carpentry, construction). He also reported that DLNR is currently discussing with the Departments of Public Safety and Corrections to arrange the use of inmates to help with renovations. The Park Ambassador would be involved in organizing and supervising the renovations project and would be a critical role

which would ultimately contribute to the success of the park project. In anticipation of the necessary support required to push this initiative forward, Chairperson Wilson spoke with Senator Malama Solomon and Representatives Virginia Isbell and David Tarnas regarding this legislative proposal.

DLNR is trying to fast track the development of the Kona Coast State Park. If the Task Force supports the renovations proposal, the next step would be to think about the overall development plan for Mahai'ula. The plan needs to have community support. It is important to go forward with the plan so that DLNR can move forward on acquiring funds from the Legislature. Prior to the start of the 1996 legislative session, DLNR made presentations to legislators and the executive branch to discuss priorities and needs of Hawai'i with regards to natural resources. The specific request to the Legislature (Senate President, House Speaker, Senate Ways and Means and House Finance Committee Chairpersons) identified the Park Ambassador for the Kona Coast State Park as a top priority of DLNR. Chairperson Wilson stressed that what will make a difference is the community's unity and support of these recommendations. DLNR will then be able to fast track on the Park Ambassador concept and renovations to facilities. After this meeting, a presentation needs to be made to the community to present the schematics from the consultants. Presentations will be made by DLNR to communities throughout the state to get support for management in sustaining resources.

Hannah Springer asked whether the primary focus for the Park Ambassador would be Mahai'ula or would his/her responsibilities extend further. Chairperson Wilson answered that the focus would be on the Kona Coast State Park, dependent upon the guidance of the community. It was noted by Chris Yuen that the Park Ambassador would also have some level of decision-making capabilities and say on the priorities/needs for the area.

Chairperson Wilson presented two options: (1) Tear down and build a beach pavilion or (2) renovate the existing facility. He noted that renovations would be costly and could range anywhere from \$150,000 to as much as \$500,000. Task Force members agreed that renovations to the existing pavilion would be preferred.

Chairperson Wilson asked the Task Force to consider what space in the pavilion structure might be used for. He suggested that the structure be used as a community education center for cultural or natural resources purposes. He explained that there are three concepts to consider:

- Cultural significance of the area: Hawaiian ancestry, feeling for the real Hawai'i, natural sense of the land and water;
- Resource: With focus on activities that provide interactive education - possibly have components dealing with aquatics (e.g. have young people learning about aquatic resource management currently in Hawaii.)
- Visitors: Should there be a commercial aspect (e.g. Gift shop? Venue for buying things such as posters, books, etc.) or no commercial activity?

Chairperson Wilson reported that the State Parks Division has looked at both buildings and determined that the adjacent single-story Kaelemakule house may have to be torn down due to the termite infestation. Hannah Springer suggested that the existing two-story Magoon house could be used as an interpretive site but that additional costs would be incurred if the facility was required to comply with ADA guidelines. The proposed renovation plan has conceptualized space upstairs for the caretaker or in a trailer with an appropriate facade. Ultimately, the public area must be ADA accessible while the upstairs could be an office or residence. It was suggested that the upstairs be used as a residential unit for the caretaker to get around the ADA requirements.

Mahai'ula/Kaulana Resources:

Task Force members were asked to provide any additional information that needs to be considered for purposes of planning. Discussion was completed on Historical/Cultural resources. Additional Historical/Cultural resources were not identified. Task Force members identified Natural Resources aspects that should also be considered. It was felt that natural resources are also cultural resources (i.e. fish populations and the relationship to biological health utility). It was also noted that geological formation and studies done show important features of the area (e.g. Hualalai is a dormant volcano). Navigational aspects specific to the area that should be identified (e.g. rock that has claimed a number of boats). It was also suggested that planning efforts should be mindful and include attention to threatened and endangered species (plant or animal) that need to be protected under federal or state laws (e.g. the turtle is not included in the list provided) around and in the area. The public needs to be aware of interferences/threats posed to endangered species. Finally, the need to work with neighbors in planning and developing any part of the Kona Coast State Park was emphasized.

Background Information on Mahai'ula Phase One Development

Francis Oda provided a broad overview on Mahai'ula. He noted that the consultants have made a special effort to not look at the strip along the shoreline but instead in the traditional way by looking at the ahupua'a, an area with different families, resources, and uses. He explained that the thought is that there does not need to be a consistent level of development throughout the Kona Coast. He also explained that the draft conceptual plan for each ahupua'a could be low, medium, or high development. In the conceptual plan for Mahai'ula, the proposed elements for each level of development vary, but could be selectively chosen and incorporated as a preferred alternative by the community to help in determining the appropriate kind of development for the ahupua'a, allowing the park to develop over time in a flexible manner. It was explained that if everything is moderately developed, the tendency is for activity to spread throughout. It is difficult to know what the choices will yield for the future.

Each of the following elements were explained in terms of accommodating low, moderate,

and high levels of use:

Road:

- Low use - Leave the road basically as it is; fill in pot holes.
- Moderate use - Stabilize the road; country road.
- High use - Paved road.

Parking:

- Low use - 75 cars outside + 20 cars by structure; no control where cars park.
- Moderate use - 95 cars; graded/controlled; 30 cars by structure.
- High use - 100 cars graded, paved, defined, striped; 30 cars around center; 20 cars around potential campsite area.

Comfort Station:

- Low use - Portables; no permanent facility.
- Moderate use - 1 comfort station/shower.
- High use - 2 comfort stations; 1 in outer area; 1 in facility to service both areas; Shower.

Activities Center:

- Low use - Tear down or remodel; need to save now to remedy on-going erosion and termite situation.
- Moderate use - Renovate to make into activity/cultural center: focus for canoes, archaeological aspects for entire park.
- High use - Similar to moderate use.

Camping:

- Low use - Unimproved, primitive camping, no facilities, no water, related to trail, if allowed.
- Moderate use - Limited camping, some water, no facilities.
- High use - Defined camp areas with support and facilities; showers and comfort stations.

Interpretive uses:

- Low use - Restrict access into areas; leave as is.
- Moderate use - Select important sites; protective pathways; do interpretive work; signage.
- High use - Focus on sites in immediate area; take entire coastal area.

Landscape:

- Low use - As is.
- Moderate use - Supplement with trees to get more shade; no or spot irrigation.
- High use - Develop secondary irrigation system; grass areas developed; trees; active recreation - land related; may take pressure off of ocean resources.

Park Ambassador:

- Low use - Optional especially with regards to housing on-site.
- Moderate use - Home better on-site; still an option.
- High use - On-site.

Chairperson Wilson explained that DLNR needs guidance with regards to what the community/Task Force wants and asked members to consider the feeling and character of the place before deciding on which of the options of elements they preferred. Task Force members discussed the low/moderate/high use options and addressed the following before deciding on usage. Chris Yuen suggested that brackish water could be used for toilet facilities on site, an option that should be explored in terms of cost and feasibility. Another question asked was, "what kind of sewage disposal would be used?" Francis Oda explained that chemical systems were being explored (e.g., Clivis multrum system used in Kalalau). Use of such a system would communicate a different message (i.e. environmentally sound planning that does not convey high intensity development.) The cost for such a system is approximately \$30,000 but the advantage is that it can be developed without a water system. It was suggested that Bob Slesser from NELH be consulted.

Monty Richards expressed that Task Force members should consider what group is being targeted for use of this park. Thinking in these terms would have more meaning to people living on this island and the park should be modeled to what local people would want. He suggested grassy areas if families would be using the park. He also noted that the park could be like taking a step back in time. Francis Oda explained that the focus has definitely been in terms of local use and that this is a resource that different kinds of people could use as well. The park could accommodate the family as well as the rugged individual. Hannah Springer noted that different kinds of seasonal use should be looked at and anticipated (i.e. surfers, fishermen at New Years) and that existing conditions should be used and enhanced. She suggested that if grass were planted, that it be appropriately planned for specific areas.

Task Force members discussed the option for camping. If camping was permitted, a permit process would be required.

Task Force members agreed with the following elements for the Mahai'ula development plan:

Parking to accommodate current level of use.

- Road should remain as is/not paved.
- Rough grading to direct and restrict cars to designated areas, no striping.
- Not in favor of having parking available near facility.
- Improve so that focus on other side of park, away from facility.
- Improve parking by chained road and eliminate parking alongside road.
- Down by the Kaelehuluhulu Beach - 100 cars
- By chained road - 50 cars
- Note: Task Force members want to control parking to manage resources; gate

control of parking. Also, safety is an issue; the more people you bring down
= if you have an entrance with registration.

Comfort Station to accommodate moderate levels of use.

- One comfort station/shower near the parking lot with trash receptacles and one comfort station at the Activities Center.
- Clivis multrum or ecotoilet.
- Note: DLNR will research level of use, number, type of comfort station.

Activities Center:

- Renovation of the existing structure preferred. The intent is to retain the existing character and ambiance.
- Educational: Cultural and/or aquatics programs (commercial uses to be discussed later).
- Should be designed to accommodate instruction to groups within facility.
- Note: When school groups come to use the area, water will be necessary.

Camping:

- Put on hold for now.
- Need to look at whole park and see where camping opportunities exist.

Interpretive Uses:

- Focus on immediate areas.
- Burial areas -- dissuade traffic in these areas; preserve area.
- Archeological sites -- don't interpret because it may cause more problems; should have signage informing the responsible citizen to behave properly and requesting kokua.
- Some interpretive signage (Lapakahi State Park method) which is positive.
- No pathways.
- Selective signage (to distract from sensitive areas) (i.e. Coconut Grove, Ponds, endangered species, ocean resources).
- Need to interpret view plane (i.e. 1801 Hualalai Flows, geological features).
- Note: Task Force members felt that consideration needs to be given for areas a family resource rather than historic resource.

Landscape:

- Retain much of what is presently there.
- Be mindful of senescent (aging) coconut trees; consider Polynesian introductions, native plantings.
- If any removal of exotics, do it judiciously and be mindful of need to stabilize soil.
- Utilize shade area.
- If creating arboretum, plant appropriate species.
- Have landscaping expertise (by consultant) to provide design options to Task Force.

Park Ambassador:

- Agreement that there is a need for a Park Ambassador's presence.

Francis Oda explained that a broader, comprehensive list for the entire area is two-thirds completed by the archeologist. This list will have more site specific information. When complete, it will be provided to Task Force members. The members were interested in seeing a resource map that shows the location of resources.

George Atta described the two kinds of resources that Group 70 has mapped: (1) recreational and natural resources and (2) land-based resources. It was suggested that GIS resource layers be looked at, and may be of interest to Task Force members. The GIS has current information on various resources, their location/last sighting, density, etc. Task Force members were then asked to consider how the needs/uses would be accommodated for the area. Francis Oda commented that the vision of how Mahai'ula fits into the Kona Coast State Park, needs to be considered.

Charlie Supe briefly reported current uses and activities of the area. The inherited site came with a lot of abandoned cars and discarded appliances. A cleanup of the area took place. The park is closed on Wednesdays due to personnel shortage and allows for maintenance to ensure the health and safety of the area. The Boy Scouts have helped with resurfacing the road on a regular basis. There are three workers assigned to the area from 9:00 a.m. to 8:00 p.m. There is a current contract with Kona Lua to provide 10 portable toilets at a cost of \$1100 a month. Native trees are being planted (i.e. Naupaka seedlings were provided by the Forestry Division) and they are looking towards increasing the number of native plants in the area. Signage is needed for interpretive purposes and to protect the native plantings. Approximately 200 cars come into the park every weekend. Since there is no water, people bring their own. Not having water contributes to short visits, deterring people from staying for long periods of time.

Charlie noted that closing the park one day a week has helped the park. He also expressed concern about increased levels of activities/visitors, and prefers limiting the beach area, to prevent another Hanauma Bar scenario from occurring. The road as is, serves as a buffer and deters traffic into the area. Charlie commented that there is a need to look at restricting the level of activity while accommodating the current level of use and that there are other mitigation measures that need to be considered/looked at.

Chairperson Wilson commented that the idea of "sustainability" is about creating something for future generations. He emphasized the importance of and need to provide leadership. The educational opportunities to create the mindset or vision can be nurtured at Mahai'ula. Integrating that concept would be important.

Bob Nishimoto from DLNR Aquatic Resources explained that there are several survey sites. Along the West Hawaii coast, there is concern about the overuse of resources. He explained that funds have been found at the University of Hawaii, Hilo campus to work on QUEST

program to set up monitoring stations. Mahai'ula could be used as a center for active learning/doing. Students could be trained locally and bring their information into the center. The public can invest or become part of the community, public-driven process. He noted that he would like to see active management and can see this as a focal point.

Hannah Springer explained that Konawaena High School's agriculture program has a mini-ahupua'a to grow things to take out on voyage and trail clearing. Marni Herkes mentioned that West Hawai'i Explorations Academy (Sea Grant Program) is conducting ocean tours for school children and is also conducting fish sampling/counts. Chairperson Wilson explained that bringing school children will enable community investment and the further development of aquatic resources.

Chairperson Wilson suggested that DLNR could charge for parking. It was suggested that a control point/guard/security entry outside could control the number of people entering the park. Another suggestion was offered that people should park outside and a shuttle could bring people into the area. Another idea was that reservations/permits be issued (like tee times on golf courses) to use the park like the National Park Service does.

Fern Pule commented that she wanted very much to see DLNR get the necessary funds and get the project moving. Chairperson Wilson responded that DLNR needs to secure funds for the facility and the Park Ambassador, and that once the vision is clear, it might be possible to get funds donated from the community. DLNR could put out an RFP for building the center with a percentage going towards paying for building the center.

When asked what percentage of park users are local residents on weekends, Charlie answered that there is a high percentage of visitors during the weekends as well as the weekdays. HVB may have statistics that would give us an idea of the number of people visiting the area. DLNR can look into this. It was noted that with United Air Lines and Japan Air Lines increasing the number of flights to Kona, visitor numbers will increase. The development of Kawaihae Harbor by the Department of Transportation will also increase the number of visitors to the area.

Marni Herkes cautioned discussion about restricting access. Most residents are not used to talking about restricting access. Hannah Springer noted that historically, access has been limited so people on the other hand have not had the pleasure of access to many of the areas. Chris Yuen noted that it is not only a matter of numbers but that it also depends on the activity with the inclination to open it up for public use. The group needs to be mindful of ways to open up the park and create distinct areas of use - parking and landscaping can make a difference.

Task Force members felt that a visitor center concept should be considered and discussed more at another meeting. Chairperson Wilson stated that prior to doing anything, the Task Force needs to communicate to the broader community and decision makers in the Legislature the reasons for sustaining the resources. Visitor/cultural centers can be pursued

positively and could be developed as a joint public/private partnership with those parameters in an RFP, which would enable it to happen much faster. A good example of this is the Hawai'i Nature Center. The RFP could have components which provide oversight. Francis Oda noted that Mauna Kea and Hale Pohaku have a similar precedent with visitor centers which provide information. It was agreed that DLNR would explore the visitor center concept further with the consultants. Marni Herkes requested that a past conference on interpretive programs/centers undertaken 8-10 years ago by DLNR/C&C/Federal parks be considered.

Next Task Force Meeting

Task Force members felt that it would be necessary to meet again to prepare presentation of their input and recommendations of the development plan to the community. The community meeting will be designed and structured to solicit the broadest range of input on the Task Force's recommendations for the Kona Coast State Park Phase I plan development.

The next Task Force Meeting has been scheduled for:

Saturday, April 6, 1996
Pavilion at Mahai'ula
9:00 a.m. - Noon
Potluck lunch

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

MAR 25 1996

CHAIRPERSON
MICHAEL D. WILSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Dear Task Force Member:

**Kona Coast State Park
Task Force Meeting No. 3**

Our third Task Force meeting has been scheduled for Saturday, April 6, 1996 from 9:00 am to noon. The third meeting will be held at the Kona Coast State Park, at the Mahai'ula Pavilion (the two-story structure). The Agenda for Task Force Meeting No. 3 is enclosed along with a copy of the Group Memory for Task Force Meeting No. 2.

At Meeting No. 3, we intend to address specific immediate actions needed at Mahai'ula, specific phase 1 development actions, and management issues, as well as the Task Force's work, its product and its future.

At the last meeting, we had only 3 community members! The Department fully realizes that you must devote a significant amount of time to review the facility needs and management issues and options for the park. We also know that this park and its management are very important to you. We have revised the agenda format to more fully explain the issues to be addressed. If you are unable to attend all of the meetings, you may provide written comments, or better yet, meet with another Task Force member, discuss your concerns and ask that the other member state your concerns and comments at the Task Force meeting. We hope, however that you will be there in person.

On the day of the meeting, staff will be at the lower Mahai'ula gate to let Task Force members drive in to the Mahai'ula Pavilion. We look forward to the April 6 meeting. Mahalo for your participation and continuing support.

Sincerely,

Gilbert S. Coloma-Agaran
for MICHAEL D. WILSON

Enclosures: Meeting No. 3 Agenda
Meeting No. 2 Group Memory

Kona Coast State Park

Task Force Meeting No. 3
April 6, 1996, 9 am to 12 noon

Name	Organization/Agency	Telephone
Hannah Kikukui Springer	Kama'oiua, Ka'opulehu	325-5126 1
Kathy McDonald	Office of Hawaiian Affairs	529-7368
MARC SMITH	BLNR HISTORIC PRESERVATION	933-4346
Anea Carter Summer	Knoko-Honokohau NHP.(NPS)	329-6881
Dennis Reid	public at large	329-8266
Keiko Bone	Hawaii County Council	961-8262
Mike Christopher	Hawaii County Legislator Auditors	961-8491
Larry Mitchell	TORCH (The Ocean Recreation Council of HI)	324-6003
BOB OKAWA	NAH-Hawaii Is. Council	322-7011
Joaney Espinoza	DBOR. H	329-4997
Chris Yum	BLNR	935-4429
Marni Allen	Kona Kohala Chamber of Commerce	329-1758
Jim Mcintosh	Member - H. Co Planning	329-2971
Sharon Cook	BIG ISLAND INFECTIO	324-0722
SARA PECK	Sea Grant Extension Service w. Hawaii	322-2044
George Atta	Group 70	523-5886
Rodney Ochiai	DEFAW, Na Ala Hale	933-4221 (ext)
ALBY WONG	Gov's liaison	329-9277
Charles Nahau	DLNR BOCA RE	323-3141

Department of Land and Natural Resources
Division of State Parks

Kona Coast State Park - Task Force Meeting No. 3
April 6, 1996, 9:00am to 12 Noon
Pavilion at Mahai'ula

Group Memory

Welcome and Introduction

The meeting began with a welcome by Chairperson Mike Wilson. Task Force members and new community members were asked to introduce themselves. Mr. Wilson continued the meeting discussing the fact that the State needs to take care of its park areas and has recently cleaned up the Na Pali Coast State Park Kalalau Valley and is now focused on the Kona Coast State Park. Mr. Wilson stated that in 18 to 24 months, the Kona Coast State Park will be a park that the community can be proud of. Mr. Wilson indicated that public participation will be needed to make this happen.

Mr. Wilson indicated that the provision of a Park Ambassador position will be critical to turning this park around, and that the State Legislature is being asked to convert an existing position to a Park Ambassador position to make this happen. Mr. Wilson noted that we will know the Legislative position on the Park Ambassador in 3 or 4 days.

Mr. Wilson stated that the Task Force needs to reach a group vision - a community vision for this park. This park is not just another Hapuna Beach. Kona Coast State Park includes cultural and aquatic components. Mr. Wilson then gave a quick review of the last Task Force meeting noting that it was decided to renovate the two-story Mahai'ula Pavilion rather than tear it down, and that this building will become a cultural/marine center for interpretation and education.

Finally, Mr. Wilson indicated the need to move forward on fund raising and suggested that we hold a community meeting to present the Task Force findings and recommendations.

ADR Facilitator Alice Paet-Ah Sing continued the meeting by reviewing the recommendations from the previous Task Force meeting. The objective was to insure that all members were in sync before going to the community meeting.

The consultant, Group 70 International, Inc. was asked to make a presentation of a revised plan showing elements and issues raised at the last meeting. Items described included a proposed visitor center, commercial-concession area, restroom facilities, dry land botanical garden, ambassador's residence, activity center, interpretive features, day moorings and a marine fisheries management area.

In reviewing the agenda, the need to address specific program requirements became evident. It was then decided that three committees should be formed to address cultural resources, aquatic resources and the proposal to provide an Visitor Center near the Queen Ka'ahumanu Highway. Committees were asked to determine the sensitivity of resources and how these resources should be handled, space and equipment requirements for the cultural and marine programs, including space requirements, office and exhibit equipment, and exhibits, etc.

Mr. Wilson assisted in assigning Task Force members to the committees. Hannah Springer, Mark Smith, Laura Carter Schuster, Bob Okawa were asked to form the Cultural Resources Committee.

Sara Peck, Bob Nishimoto, Larry Mitchell, Ruby McDonald, Karen Klein, Roger Harris, George Atta and Dan Quinn were asked to for the Aquatic Resources Committee.

Marni Herkes, Lin McIntosh, Rodney Oshiro, and Sherrie Samuels were asked to form the Visitor Center Committee.

For the benefit of the Aquatic Resources Committee, a number of individuals were identified that could be contacted for information on park users and uses. These individuals included Keoki Magoon; Belt Collins for a listing of people through their Hualalai Development effort; Shoreline Casting Club, Mehealani Pai, Francis Kuailani, the Keana'aina 'Ohana, George Kanihale, and Karen Halemahu.

Mr. Wilson discussed the possibility of putting out a "Request for Proposal" (RFP) for the Visitor Center at the highway. A RFP would allow the private sector to bid on construction and operation of the center and in return, receive a percentage of the proceeds. The Visitor Center could include a theatre, museum, and store, and could function as a Kona regional orientation center since no similar facility exists in Kona. Task Force Members and Mr. Wilson discussed the community meeting and selected Thursday, May 2, 1996 as the date for the meeting. The meeting would be held in the evening from 5 to 7 pm. State Parks staff were asked to make the arrangements to hold the meeting at the Kealakehe Intermediate School Cafeteria, if possible.

Since the time before the community meeting is short, the Committee members decided to hold their first meeting during the latter half of the Task Force Meeting, after the refreshment break. (Committee meeting summaries are provided as separate reports.)

After the committee meetings, the Task Force, as a whole, reconvened before the closure of the meeting and indicated the following.

The Aquatic Resources committee agreed to hold their second meeting on April 17 from 12:30 to 1:30 at the OHA meeting room(this meeting was later rescheduled to April 18 since the room was in use on the 17th). Day moorings were identified as a concern.

The Cultural Committee agreed to hold their second meeting on April 18 at Mahai'ula. This meeting would include a walk through of some of the areas.

The Visitor Center Committee agreed that Marni Herkes would write up the results of the first meeting and fax the results to each committee member. Committee members would have several days to review and comment. If no comments are received, a second meeting would be needed.

Committee members asked if State Parks had any existing visitor centers that could serve as models. Dan Quinn responded that the Division of State Parks did not have any of their own, other than the cooperative arrangement at Kokee. At the scale suggested, the Kona Coast Visitor Center would be a first. It could be similar to Lapakahai, but nothing like the NPS visitor centers. The Volcano Visitor Center was also mentioned as a reference.

Committee members asked if State Parks could have jurisdiction over Mahai'ula Bay, indicating that it would be culturally appropriate to include the Bay with the Park.

Regarding Day Moorings, there were questions about the status of the State Task Force recommendations and whether Mahai'ula was on the list.

Regarding camping, the Chairperson suggested that this not be included in the phase 1 development plan at this time. Marni Herkes noted that it had been indicated in the earlier Plan. George Atta affirmed this, but stated that it is deleted from the latest plan.

Toilets were also discussed, citing the Honokauhau-type and Clivus Multurm examples. It was noted that there was a wealth of choices to evaluate.

Task Force
Meeting No. 3
Group Memory

The State Parks staff was requested to prepare the Task Force report consisting of the Task Force recommendations, committee recommendations, the conceptual plan, and the phase 1 development plan. The committees were requested to submit their reports by April 25, so that they can be incorporated into the Task Force report. The Task Force report would include a list of items that the Task Force has agreed to; a list of unsettled items and the group memories and committee reports, plus the Conceptual Plan and the Phase 1 Development Plan. The report would be prepared and distributed to the Task Force members prior to the community meeting with a request for comments and after revision, in accordance with the comments, as a handout for the community meeting. A follow-up Task Force meeting will be held.

Mr. Wilson mentioned that the preparation of the EIS will begin after the May community meeting and this is needed to allow significant work to begin on the Park.

The meeting was adjourned at 11:40 am.

April 28, 1996

Dear Task Force Member:

Kona Coast State Park Community Meeting

A community meeting to present the Kona Coast State Park Task Force recommendations has been scheduled for Monday, May 6, 1996 from 6:00 pm to 8:00 pm. The meeting will be held at the Kealakehe Intermediate School Cafeteria, located at 74-5062 Onipa'a Street, Kailua-Kona, Hawaii. The community meeting agenda is enclosed. The Group Memory for the Task Force Meeting No. 3, a draft of the Kona Coast State Park Task Force Report, and handout for the community meeting will be sent to you later this week.

Prior to the Community Meeting, we would like to hold a short Task Force meeting at the Kealakehe Intermediate School Cafeteria between 5:00 pm and 5:45 pm to review the aquatic resources, cultural resources and the orientation center committee reports and overall Task Force recommendations. We thought this might be helpful to all Task Force members.

Following the Community Meeting, a final Task Force meeting will be planned to address comments received at the community meeting, receive your comments on the draft Task Force report and complete the Task Force work. Thereafter, the State Parks will finalize the Task Force report and publish it for you.

We look forward to the Community Meeting and continuing to work with you to improve the Kona Coast State Park and implement the Phase 1 Development Plan at Mahai'ula.

Sincerely,

/s/ RALSTON H. NAGATA

RALSTON H. NAGATA

Enclosure: Meeting Agenda
SS:ss

**KONA COAST STATE PARK
Community Meeting on
Task Force Recommendations
for the
Phase I Development Plan
at Mahai'ula**

**Monday, May 6, 1996
6:00 to 8:00 pm
Kealakehe Intermediate School Cafeteria
74-5062 Onipa'a Street
Kailua-Kona, Hawaii**

AGENDA

Introduction

**Planning Process and Objectives/
Task Force Process and Products**

**Phase 1 -Mahai'ula Resources
Overview of Phase 1 Alternatives**

**Task Force Committee Reports
1. Cultural Resources Committee
2. Aquatic Resources Committee
3. Visitor Orientation Center Committee**

Task Force Recommended Phase 1 Development Plan

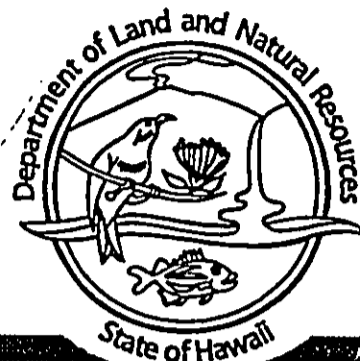
Next Steps

Meeting Closing

Public Information Office
Kalanimoku Building, Room 130
1151 Punchbowl Street
Honolulu, Hawai'i 96813

NEWS RELEASE

Contact: Aulani Wilhelm, O'ahu, 587-0330
96-42
April 25, 1996



COMMUNITY INPUT SOUGHT TO PLAN KONA COAST STATE PARK

The Department of Land and Natural Resources will host a community meeting on Monday, May 6, to discuss the future of the Kona Coast State Park. At the meeting, details of the Phase 1 Development Plan will be presented to the public by the Kona Coast State Park Task Force. The task force is seeking input from the public on the plans and would like to involve as many people as possible in the planning and development of the park. The meeting will be held from 6:00 to 8:00 p.m. at Kealakehe Intermediate School Cafeteria, 74-5062 Onipa'a Street, Kailua-Kona, Hawai'i. The park plan will guide the management and use of recreation, natural and cultural resources at this 2000+ acre wilderness park. The plan includes the development of a marine education program and emphasizes the protection of both natural and cultural resources in the area.

Development of the park's conceptual plan began in 1994. An introductory community meeting was held to present the park concept to the public. A second community meeting followed in April 1995 to present preliminary plans to the public based on different levels of use in each ahupua'a within the park. The community was asked to select the level of use (high, medium or low) they would like to see occur at the park. Community members selected a low level of use throughout the park and suggested convening a task force made up of community organizations to fine-tune the conceptual plan and prepare a Phase 1 Development Plan for the Maha'ula section.

"Community participation in the planning and development of this important park is critical to our success," said DLNR Chairperson Michael Wilson. "We would like to see everyone in the Kona community come out and share their ideas about how to best sustain and preserve the precious natural and cultural resources of this area."

The meeting will provide the community with an opportunity to examine the task force recommendations and provide their comments on the proposed plans before they are presented to the Board of Land and Natural Resources (BLNR) for review. Following review and acceptance by the BLNR, an Environmental Assessment and Environmental Impact Statement will be prepared for the Phase 1 Development Plan by Group 70-International, Inc., the planning consultant.

For more information, contact Sherrie Samuels, DLNR Division of State Parks, O'ahu, at 587-0296 (fax: 587-0311), or George Atta, Group 70-International, Inc., O'ahu, at 523-5866 (fax: 523-5874).

**KONA COAST STATE PARK
Community Meeting on
Task Force Recommendations
for the
Phase I Development Plan
at Mahai'ula**

Monday, May 6, 1996
6:00 to 8:00 pm
Kealakehe Intermediate School Cafeteria
74-5062 Onipa'a Street
Kailua-Kona, Hawaii

AGENDA

Introduction

Planning Process and Objectives/
Task Force Process and Products

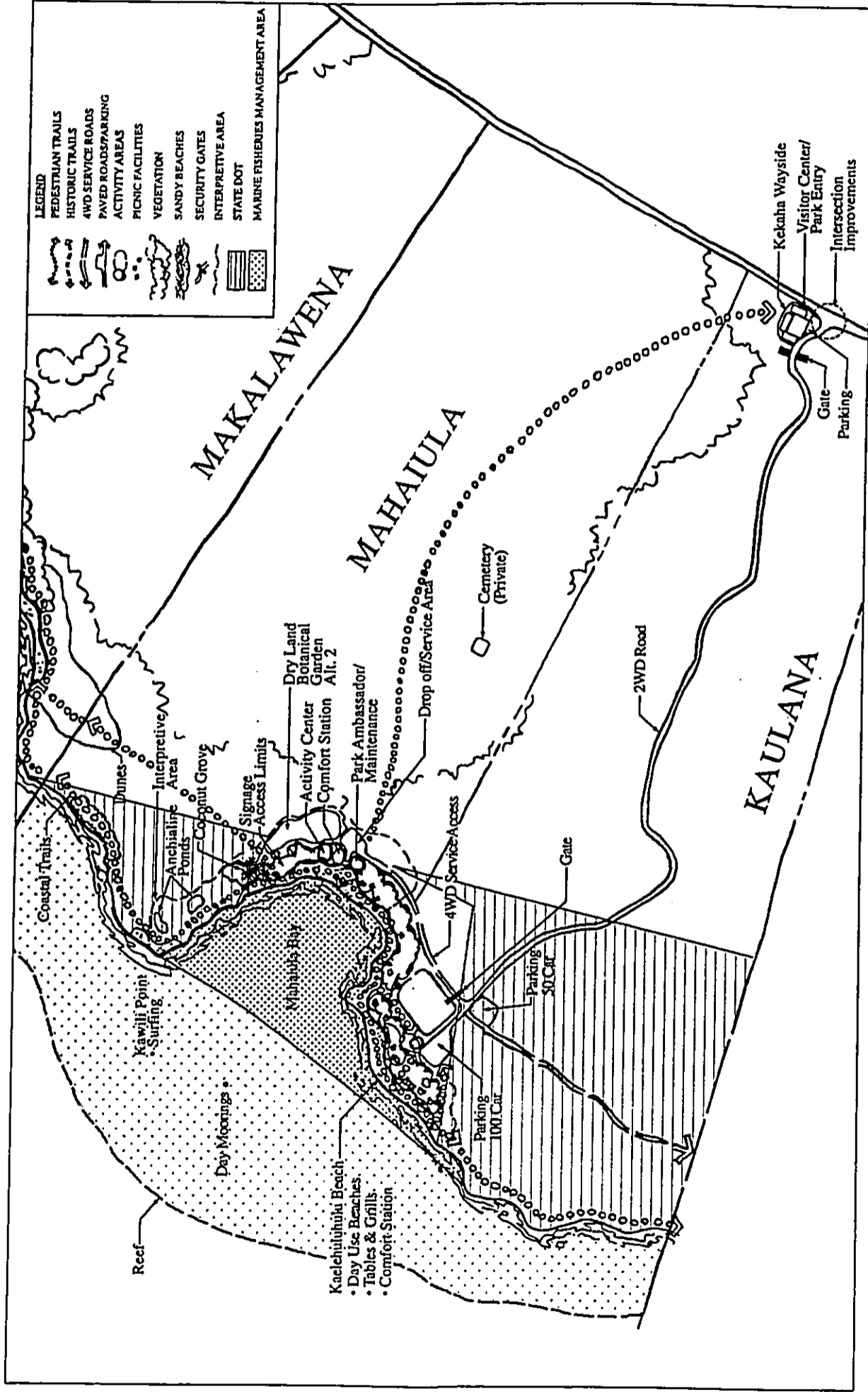
Phase 1 -Mahai'ula Resources
Overview of Phase 1 Alternatives

Task Force Committee Reports
1. Cultural Resources Committee
2. Aquatic Resources Committee
3. Visitor Orientation Center Committee

Task Force Recommended Phase 1 Development Plan

Next Steps

Meeting Closing



MAHAI'ULA/KAULANA RESOURCES

HISTORICAL/CULTURAL

Magoon House and Site
Main trail to Makalawena
Coastal foot path to Makalawena
Koa complex near Kawili Point
Burials near Magoon House
Kaelemakule burial compound
Konane platform field
Mauka-makai trail behind Magoon House
Lava tubes behind Ka'elehuluhulu
Trail to Makole'a

NATURAL

Ka'elehuluhulu Beach
Mahai'ula Bay Beach
Mahai'ula Bay
Ka'elehuluhulu Pond #1
Ka'elehuluhulu Pond #2
Kiawe grove around Ka'elehuluhulu
Mixed grove mauka of Mahai'ula Bay
naupaka, coconut, milo
Fountaingrass grasslands
Mai'apilo and Fimbristylis
Pritchardia affinis - loulou
Strand vegetation
Pond vegetation - makaloa
Fauna
Monk seals, feral donkeys, kolea,
ulili, pueo, ope'ape'a
Lava fields
Mahai'ula Ponds
Mahai'ula coconut grove

KONA COAST STATE PARK TASK FORCE Cultural Resources Committee Report

INTRODUCTION

Task Force members Bob Okawa, Laura Schuster, Marc Smith, and Hanna Kihalani Springer met as the Cultural Resources Committee during the latter half of the third Task Force meeting on April 6, 1996 at Mahai'ula Beach.

The Committee met again at Mahai'ula on April 18, 1996 from 9:00 am to about 11:30 am. The initial participants were joined by George Atta, Karen Eoff, Janice Palma, Dan Quinn and Sherrie Samuels. The recommendations which follow have been developed for inclusion in the Task Force Report and presentation at the Community Meeting to be held on May 6, 1996.

VISION

The Cultural Resources Committee felt that the vision for the park should reflect both a period of time and a state of being as well as sound resources management principals. The resources management component will draw from existing guidelines and mandates and the findings and recommendations of the Committee.

The period of time chosen is guided by what exists on site now, a variety of architectural styles and structural functions dominated by the c. 1939 Magoon home. This home and the various associated buildings, which both pre and post date it, are reflective of the isolated and self-sustaining character of the site. A kitchen was added to the Ka'elemakule home, which according to family accounts is a 19th century residence. The water tanks and windmill, the generator house, and the free standing bath and toilet areas, all completed in different decades, complete the picture.

Similarly, landscaping should take its cue from what is there now. The *maiapilo* is indigenous; the *kou*, *milo*, and *niu* are associated with Polynesian occupation; and the *hinahina*, *kiawe*, and fountain grass have all become naturalized at the site. The crown flower, oleander, and other shrubs around the home site are associated with three generations of Magoons who called the place home.

Many of those at the Committee meeting are familiar with the song "Mahai'ula", composed by Helen Desha Beamer. It is this graciousness of spirit, set to poetry, that should set the tone, the state of being, for the park. A copy of the song is attached.

FINDINGS & RECOMMENDATIONS

1. ARCHIVAL RESOURCES

Findings:

- There have not been any archaeological surveys of the *ahupua'a* of Mahai'ula and Kaulana specifically. The coastal regions of several of the *ahupua'a* of Kekaha, North Kona have been subjects of various levels of survey work.
- There is no bibliography for these *ahupua'a* specifically.
- There are no oral histories for these *ahupua'a* specifically.
- Kepa Maly has done extensive interpretation of the traditions of Kekaha, drawing from the writings of Ka'elemakule and Kihe as they appear in the Hoku O Hawaii, (Rosendahl 199?)

Recommendations:

- The *mo'olelo* (stories, traditions and legends) are key to understanding this place and the *mo'okuauhau* (genealogical succession) to understanding its people. The archaeological survey and complimentary archival reviews and oral histories done as a part of Park development will provide this information.

2. COMMERCIAL RECREATIONAL VENDORS

Findings:

- The committee appreciates the current, commercial-free environment.
- The committee is concerned with inherent contradictions between cultural

and commercial practices.

- The committee is concerned with potential jurisdictional and enforcement difficulties if vendors are permitted on-site.
- The committee anticipates a strong lobby from the kayak and recreational vendors for space on-site.

Recommendations:

First Preference: Commercial activity be concentrated at the Ka'upulehu node which will offer a variety of commercial opportunities provided by the development(s) there.

Second Preference: Limited vending be allowed at the Park Orientation Center located at the Park entrance at Queen Ka'ahumanu Highway.

3. CULTURAL LANDSCAPE(S)

Findings:

- The clusters of sites, including the Ka'elemakule-Magoon home, by the sea are not the only components of cultural landscape. The *ma uka- ma kai* trails; the biogeographic mosaic of the uplands of Kekaha, including Hualalai itself; the ahupua'a of Kekaha; the lava scape surrounding; all of these are laden with cultural value.
- The older stone features, the Ka'elemakule-Magoon home-site, and the existing Park features represent three distinct cultural periods.

Recommendations:

- Interpretation should be inclusive of the entire *ahupua'a* which comprise the park. That is to say, links between the clouds, the watersheds, the lava scape, the basal springs, and the ocean environments....the relationship between the *wao akua* and the *wao kanaka* should be recognized and presented, the *wahi pana* identified.

- Presentation may include brochures and signage for the general public. Educational materials should also be *ahupua'a* based.
- With regard to the contemporary cultural landscape, due to proximity to the Ka'upulehu node, more intensive activity should take place at the northern sector (Manini'owali). The middle sector (Awake'e) would have a "wilder" character. The southern sector (Mahai'ula and Kaulana) would carry a moderate activity load.

4. LANDSCAPING

Findings:

- *Maiapilo* is the most prevalent native plant species on the 1801 lava plain of Mahai'ula and Kaulana.
- The Polynesian introductions, *kou*, *milo*, *niu* represent an early landscaping tradition which is well suited to the environment.
- Fountain grass and *kiawe* have become naturalized upon the lava plain and along the shoreline, respectively.
- *Hinahina* and *naupaka* are present along the shoreline and a number of ornamentals and weeds grow around the Ka'elemakula-Magoon home-site at Mahai'ula and at the Park parking area at Kaulana.
- There is no irrigation at the home-site at this time.

Recommendations:

- *Maiapilo* should be favored under all circumstances.
- The Polynesian introductions should be encouraged and enhanced (e.g. senescent *niu* replaced) as key landscaping elements.
- Utilization of plant resources in a culturally compatible manner should be encouraged: in the event of clearing or maintenance, wood and fiber might be offered to practitioners according to protocols yet to be devised.

- Fountain grass should be aggressively controlled. The preferred control method is mechanical. If chemical control is used, it should be fusillade, or a similarly "benign" herbicide.
- *Kiawe* should be selectively thinned and manicured to offer shelter.
- Irrigation should be minimal.

5. MARINE RESOURCES

Findings:

- Marine resources are cultural resources.
- Traditional resource management was affected through *kapu* with the goal of a sustained harvest of resources.

Recommendations:

- Marine resources should be studied and interpreted with reference to both their biological and cultural values.
- Management goals should be of a fisheries rather than conservation nature and management should be active and directed towards keeping resources populations self-sustaining.

6. MUSEUM

Findings:

- Materials excavated from archaeological sites are generally removed from the sites, studied, and warehoused off-site.
- There are materials from such sites at Kekaha and beyond so treated.
- There are no repositories in Kona for materials collected from Kona.

Recommendations:

- A repository, perhaps a museum, should be included in the Park management plan.
- Funding for the facility may be co-operative, between the public and private sectors.

7. PLACE NAMES AND LANGUAGE

Findings:

- The Hawaiian language is specific and descriptive and its use enriches us and informs us of older insights which retain cultural validity.
- The Park as presently demarked, is entirely within the North Kona region of Kekaha.
- There is a tremendous loss and misuse of Hawaiian place names.
- There is a tremendous loss and misuse of the Hawaiian language.

Recommendations:

- Because the Park is located in the Kekaha region and the *mo'olelo* and *mo'okuauhau* of the *ahupua'a* are the accounts and genealogies of the Kekaha lands, the park name, as perhaps the greatest interpretive tool, should include "Kekaha".
- Specific place names and the *mo'olelo* associated with them should be recorded and used as standard procedure.

8. PUBLIC LAND

Findings:

- Community groups including Ka Lahui Hawaii and the Kona Hawaiian Civic Club have publicly testified in favor of a moratorium on any trade, sale, lease,

or development of Public Land until the question of *Hawai'i maoli* jurisdiction is answered.

- Park development represents a lavish expenditure of funds at the time of financial crisis.

Recommendations:

- Address these concerns.

9. WATER

Findings:

- The land of Kekaha was further described as "*wai 'ole*", "without water". This informs us of the character of the place. That the *kama* (child or person) of this place loved and do love so speaks to the character of the people.
- The *wai 'opae*, the *loko wai*, they were like governors of the carrying capacities of the coastal hamlets of Kekaha.
- Water carriage systems are costly, both in terms of money and approvals required to develop them.
- See earlier discussion under landscaping.

Recommendations:

- Develop water systems prudently, less may be better.

MAHAI'ULA
(The beach home of Alfred Kapala and Ruth Puanani Magoon)

1. Haele a'e k'aua la I ke kono a ka makemake E kipa, e luana, e ho'onanea Me Puanani a me Kapala	Let's go, we're Invited and wish To visit, enjoy and relax With Puanani and Kapala
2. A hiki i Kailua Kau i ka moku "Imua" he inoa 'Au aku 'o ia kai loa Kaulana Kona i ke kai malino	Arriving at Kailua Board the boat, "Imua", by name Sail the long sea of Kona famous for it's calm
3. Kū i ke awa 'o Mahai'ula He ani lima ka'u 'ike aku Kau i ka wa'apā hoe lima A pae aku i ka 'aina	Anchor in the channel of Mahai'ula I see hands waving Board the small boat and row Until (we) reach land
4. Hau'oli nā makamaka Pumchana ka 'apo'ana mai Honi aku, a honi mai Ke aloha ia a ka Hawai'i	Happy, dear friends Warmly embracing Exchanging "honi" The greeting of the Hawaiian
5. Kipa i ka 'olu o ka home Ho'ola'ila'i me nā hoa Moani ke 'ala o nā pua 'Oliana, aloalo, pua kalaunu	Inviting is the cool comfort of the home Lighthearted contentment among friends Windborne fragrance of the flowers Oliander, hibiscus, crown flower
6. Unu mai nā 'ono o ke kai Hui me nā wai kau o Maleka Ua 'ai, ua inu a kena 'A'ohe mea i koe aku	Heaps of delicacies from the sea Together with drinks (waters from America) Ate and drank our fill There was nothing left
7. Aloha e ka leo o kahi 'enekini I ka hone mai nā hola like 'ole E ha'i mai ana i ka nūhou Ua 'a ka uwila iā kahakai	Greeted by the "voice" of the generator Softly humming throughout the hours Telling the news That electricity has come to the beach
8. Ho'ohihi au i ka li'ula I ka 'a mai i ka welelau o ka honua Eia mahina kau ahiahi E ho'oipoipo ana me hōkū loa	I am entranced by the twilight That lights the very ends of the earth Here, evening moon rises, Making love with Morning Star
<i>Hui:</i> He nani, a he nani maoli nō Mahai'ula i ka la'i Hali'i mai la i ka loa Me ke kai kahakai ki'i lihilihi i ke one E o, e Puanani me Kapala kou inoa	<i>Chorus:</i> Beautiful, how truly beautiful Mahai'ula in the calm, Spread out there lengthwise With the sea drawing lace pictures on the sand O answer, Puanani and Kapala to your namesong

KONA COAST STATE PARK TASK FORCE Aquatic Resources Committee Report

INTRODUCTION

Task Force members participating in the Aquatic Resources Committee included Sara Peck, Ruby McDonald, Barney Espinda, Jr., Larry Mitchell, Karen Klein, Laura Schuster, Bob Nishimoto, Pete Hendricks, Hannah Kihalani Springer, Anna K. Keanaaina, and Francis Keanaaina.

The Committee met twice, once during the latter half of the third Task Force meeting on April 6 and again on April 18, 1996 from 12:30 to 2:45 pm, and developed the following recommendations to be included in the Task Force Report and presented at the Community Meeting to be held on May 6, 1996.

VISION

The Aquatic Resources Committee felt that this type of park should provide an experience of quality reminiscent of the 1930's. People remember a more gracious time of family outings at Mahai'ula and similar sites. This experience can bring families back together again, back to the land they came from, to commune with the ocean, wind and shoreline elements as one. Future generations will have this place, guarded from motorized recreational vehicles, guarded from over use, for their enjoyment of this vision. The findings and recommendations which follow reflect the Committee's intent to make this vision reality.

FINDINGS & RECOMMENDATIONS

1. MANAGEMENT OF MAHAI'ULA BAY MARINE RESOURCES

Findings:

- Currently no management plans are in force at this location.

Recommendation:

- A Fisheries Management Area should be established and access to the area limited to non-motorized vessels.

- Within the Fisheries Management Area, allow fishing only by line and pole or by throw net or other traditional fishing techniques such as Hawaiian sling. No laynet fishing shall be allowed, other than the traditional practice of hukilau for group educational purposes only.

2. MARINE RESOURCES AND EDUCATIONAL PROGRAMS

Findings:

- Mahai'ula Bay is representative of the Kona Coast marine flora and fauna characterized by three types of marine community regions: the inshore high surge shallow water community at depths under 5 feet, the moderate surge community found at depths of -10 to -30 feet, and the deep water low surge community at depths of -70 to -90 feet.
- In the high surge areas, the substrate consists of algae-covered basalt pavement and rubble, coralline rubble and sand patches. Low growing coral, mostly *Pocillopora meandrina*, are sparsely settled, with *P. damicornis* occurring inshore where fresh water seeps into the bay.
- In moderate surge areas, the substrate consists of basalt pavement and rubble covered to a large degree by sand and algae. Of primary importance are the massive colonies of *Porites lobata*, some over 12 feet wide, which occur regularly at depths of -10 feet. *P. lobata* and *P. compressa* covers approximately 10-25 percent of the hard substrate.
- The deeper water low surge community is characterized by abundant growth of hermatypic corals including *Porites lobata*, *P. compressa*, and *Pocillopora meandrina*.
- Hawaii's near shore fish species are well represented throughout the bay. Fishes most commonly encountered are herbivorous, including surgeonfishes, parrotfishes, and certain damselfishes. Other fishes include triggerfishes, snappers, goatfishes, pufferfishes, butterflyfishes, and baitfishes.
- Invertebrate species (exclusive of corals) are also well represented, and include *Echinothrix calamaris*, *Tripneustes gratilla*, *Echinometra mathaei*, and *Chondrocidaris gigantea*, plus sea cucumbers, *Holothuria atra*.

- Anchialine ponds, unique ecosystems found in very limited numbers in the world, exist between Mahai'ula and Makole'a Point. These systems often support unusual biota, with many species not found elsewhere. Between 6 and 8 ponds have been described in this area, with several species considered to be endemic. The hypogeal shrimp, *Callismata pholidota*, *Procaris hawaiiiana*, and *Antecaridina lauensis*, the epigeal shrimp *Palaemnella brnsi*, the mollusc *Neritilia hawaiiensis* and the moray eel *Gymnothorax hilonis* are biota considered rare and known only from the anchialine habitat. *Halocaridina ruba* ('opae ula), another hypogeal shrimp is associated with Hawaiian traditions.

Recommendations:

- Set up coral monitoring stations within Mahai'ula Bay.
- Set up static displays depicting conspicuous marine biota, explaining their importance to the coral reef ecosystem.
- Establish a Mullet release program.
- Work with the community on the catch and release program and encourage reporting of tagged fish caught to provide information on fish population dynamics.
- Prepare guidelines for managing the use of the Mahai'ula area for marine education, including the number of groups permitted each day, the size of the group, the facility use and need, the number and type of programs to be provided.
- Set limitations, but allow for growth in programs and facilities for marine education.
- Establish anchialine pool monitoring and recovery program and guidelines.

3. DAY USE MOORINGS

Findings:

- *Aku koa* and *'opelu koa* (fishing grounds) are known to exist within and

offshore of Mahai'ula Bay. The *aku koa* is known locally as the "North Grounds". There are about 4 such *aku koa* within the vicinity of Mahai'ula. *Aku*, and *'opelu*, congregate at these sites.

- Placement of day use mooring pins may disturb these sites.
- The precise location of the proposed mooring pin sites has not been determined or plotted on a map to show the mooring pin in relationship to the location of *koa*.
- Boats presently anchor most frequently at Makalawena and at Kua Bay.

Recommendations:

- Determine the precise locations of the proposed day use moorings fronting the Kona Coast State Park, and the location of the *aku koa* and *'opelu koa*.
- Determine if any impact to *koa* can be anticipated.
- Survey and study the use of Mahai'ula Bay and the Kona Coast State Park coastline to determine the present use of the nearshore and coast by fishermen.
- Select and/or adjust day use mooring locations to avoid *aku koa* and *'opelu koa*.
- Hold off the installation of the Mahai'ula Day Use Mooring until there is a need for it.
- Install day use moorings at Makalawena and at Kua Bay to protect the reef at each of these sites.

4. USE OF MAHAI'ULA BAY

Findings:

- Mahai'ula Bay is used for family picnicking, swimming, fishing, sun bathing, and some surfing, however, formal use counts are not known to exist.

- Historically, Mahai'ula Bay was used by residents of adjacent village clusters for food gathering. Residents fished for near shore fish during the summer when fish were plentiful.

Recommendations:

- Conduct survey of existing uses of Mahai'ula.
- The highest priority use of Mahai'ula Bay should be a historical, cultural, and educational use.
- No motorized recreational vehicles will be allowed within the boundaries of Mahai'ula Bay.

5. COMMERCIAL RECREATIONAL VENDORS

Findings:

- Kayak and recreational equipment rentals are anticipated to be popular with park visitors.
- On-site food and beverage concessions require additional maintenance and rubbish management and may generate greater traffic.

Recommendations:

- Commercial recreational vendors or a concessionaire should only be allowed at the Visitor Orientation Center located at the park entrance at Queen Ka'ahumanu Highway.
- The highest priority for the use of Mahai'ula Bay should be for historical, cultural and educational uses.

6. MARINE EDUCATIONAL PROGRAMS

Findings:

- Marine and ocean resource education opportunities can benefit island

residents and visitors as well as the near shore ecosystems. Appreciation for and understanding of the interrelationships between plants and animals of Mahai'ula Bay and adjacent anchialine pools will be carried into other coastal settings by the learners.

- Coral reef and shoreline communities can be quickly impacted by human activity¹.

Recommendations:

- Develop management guidelines for the number of educational groups, time allowed on site, number of persons per visit, number of persons per day, dispersion of visitors within the site, and other logistical matters. Example: one bus load of 60 students could be divided into three groups of 20 students, each group participating in activities at separate locations within the site.
- Provide facilities for low impact marine education programs. Facilities could include one or two wet tables for temporary holding, and storage for educational materials.

7. CAMPING

Findings:

- Kayak users are known to paddle from area to area and put in at different beaches along the Kona coast.
- Island families enjoy camping along the coastline, however heavily used areas, such as Kua Bay, are becoming degraded and a potential health problem exists as there are no restroom facilities.

Recommendations:

- Do not provide camping facilities at this time.

1. The Effect of Human Trampling on Coral Reefs, A.M. Kayo and M.J. Liddle, A.E.S., Griffith University Qld., Australia (1990?) Human Impacts of Coral Reefs: Facts and Recommendations, ed. Bernard Salvat, Museum National D'Historie Naturelle, Moorea (1987).

- Provide camping in the future as needed, in accordance with available funding and staff.

8. CARRYING CAPACITY

Findings:

- Establishing a "carrying capacity" is not an exact science.

Recommendations:

- Research carrying capacity recommendations from other managed sites.
- Develop a carrying capacity tool to be applied proactively and flexibly (can be increased or lowered) as required by use and environmental signals.
- Establish an opening, limited, carrying capacity for the Park in general, that will not impact the Park environment or the long-term sustainability of the park resources.

9. KIKAUA POINT AND KUKIO BAY (ULUWEUWEU BAY)

Findings:

- The Kona Coast State Park extends to Kukio Bay and includes Kikaua Point.
- Kukio Bay is an important cultural and biological resource, because it is known to provide nursery habitat for marine species.
- In looking at the overall aquatic environment within the Park boundaries, Kukio Bay remains unprotected.
- Kikaua Point area is fished sometimes by setting nets.
- With the opening of the Four Seasons resort, and in the future, with the Huehue project, public access to these areas will increase, and marine resources and habitat at Kikaua Point and Kukio Bay will be increasingly impacted.

Recommendation:

- A Fisheries Management Area (FMA) should be considered for Kikaua Point and Kukio Bay, which is also known as Uluweuweu Bay.
- Review the Main Hawaiian Islands Marine Resources Investigation (MHI-MRI) to determine current use of Kikaua Point and Kukio Bay, or survey current use by fishermen.
- Make Community aware of the need to enforce FMA requirements once established.

KONA COAST STATE PARK TASK FORCE

Visitor Orientation Center Committee Report

INTRODUCTION

Task Force members participating in the Visitor Orientation Center Committee included Marni Herkes, Hannah Kihalani Springer, Larry Mitchell, Lin MacIntosh, Rodney Oshiro, Chuck Cartwright, Dennis Reid, George Atta, Sherrie Samuels, Laura Schuster, and Alice Paet-Ah Sing .

The Committee met once during the latter half of the third Task Force meeting on April 6, and again, on April 25, by fax, reserving the right to meet again if needed. The Committee developed the following recommendations to be included in the Task Force Report and presented at the Community Meeting to be held on May 6, 1996.

VISION

A Visitor Orientation Center could provide an opportunity for regional interpretation of Kona's history, and its cultural and natural resources, a museum for display and storage of artifacts recovered from various projects within the region, an indoor theatre for interpretation and educational purposes, and outdoor seating with views of the Kona Coast. Toilets and water could be provided, along with the sale of publications, maps, posters, and refreshments, and possibly rental of recreational equipment for use at Mahai'ula Bay.

The Visitor Orientation Center could be the centerpiece for West Hawaii parks under the jurisdiction of the Department of Land and Natural Resources.

FINDINGS & RECOMMENDATIONS

1. NEED FOR A VISITOR ORIENTATION CENTER

Findings:

- Public use of Mahai'ula is already high. There is a need to control the flow of visitors to Mahai'ula, in order to better manage the park and its resources.

- A Visitor Orientation Center control the flow of visitors into the Park,
- There is no other place for residents and/or visitors to learn about the area and the history of West Hawaii from South Kona (Pu'uhonua o Honaunau NHP) to North Kohala (Pu'u Kohola Heiau NHS).
- While there is a walking tour of Kailua town with three historic sites located there, nowhere is there a place to get an overall intelligent, interpretive history of the Kona area.

Recommendation:

- A Visitor Orientation Center could be constructed at the entrance to the Park at the Queen Ka'ahumanu Highway. The Visitor Orientation Center could serve as a park gate regulating the number of visitors entering the park.
- A Visitor Orientation Center could provide regional interpretation of historical, cultural and natural resources of Kona, community education facilities as well as a museum and exhibit area.
- The Visitor Orientation Center could sell publications, posters, locally-made products and refreshments and provide toilet facilities and water. Such a center could welcome hikers and bicyclists as well as motorists.

2. INTERPRETIVE AND EDUCATIONAL PROGRAMS

Findings:

- Interpretive Programs should include educational, cultural and commercial aspects.
- Interpretation should address the entire *ahupua'a* including its history, and its natural and cultural resources.

Recommendations:

- The Visitor Orientation Center at Queen Ka'ahumanu Highway will provide an excellent site to interpret not only the cultural and history of the *ahupua'a*

within the Park, but also the entire Kona region.

- The Center could include an indoor theatre for viewing presentations and appropriate videos and movies.
- The Center could also include an outdoor amphitheater for outdoor presentations and programs, and outdoor seating for viewing the region.
- The Visitor Orientation Center could provide a facility for not only the visitor but also the community and its schools where natural and cultural history can be taught and experienced.

3. TRAIL ACCESS

Findings:

- The Ala Kahakai, the coastal trail, and the *makua* and *makai* trails will be more accessible when the Park has been developed.
- There are other trail access points or nodes along the Kona Coast, in addition to the trail access provided within the Park.
- The Ala Kahakai is presently being considered for designation as a National Trail by the National Park Service.
- With increased access to the park, via the Ala Kahakai, there will also be a need for education and mitigation of the impact that will result.
- Management and maintenance of the Ala Kahakai and the trail system will be needed.

Recommendations:

- The Visitor Orientation Center could be an orientation center for hiking and biking as well as for visitors arriving by automobile.
- The Visitor Orientation Center could serve as a trail head for the trail system.
- The Visitor Orientation Center could provide information, maps on the trails

along with explanations and advisory information on provision (water) and trail condition.

- The Visitor Orientation Center could also function as a meeting place for an expanded "adopt a trail" program.

4. COMMERCIAL ASPECTS

Findings:

- Commercial aspects could bring a contribution to the resource, both financially and educationally.
- Cultural elements can form a connecting thread through all aspects of the Visitor Orientation Center.

Recommendations:

- The Visitor Orientation Center can provide educational, cultural and commercial services.
- Space should be provided for commercial aspects.
- Commercial aspects must be handled with sensitivity, such as at Pu'uhonua o Honaunau NHP, Kokee Museum, and Hawaii Volcanoes National Park.

5. FACILITIES AND LANDSCAPE DESIGN ELEMENTS

Findings:

- The Visitor Orientation Center will be located within the open expanse of the lava fields and in proximity to the Queen Ka'ahumanu Highway.
- The Visitor Orientation Center will be located at some distance from existing power and water supplies lines.

Recommendations:

Kona Coast State Park
Task Force Committee Report
on the Visitor Orientation Center

- Design of the Orientation Center should be handled with sensitivity because of its location.
- The Visitor Orientation Center site should be structured as a *kipuka*, and could be one of the wayside parks being planned along the Queen Ka'ahumanu Highway.
- Architecture could be similar to the Keahole International Airport structures, or could be a low-profile structure of lava rock designed to blend into the landscape.
- Alternative energy sources should be considered in planning the center. Photovoltaic equipment and a brackish well for irrigation and toilets should be considered. Bathrooms should be environmentally friendly, and could utilize "Clivus Multrum" or similar technology.
- The Visitor Orientation Center could be located on a frontage road from the Keahole International Airport, or could be provided with its own access.
- The Visitor Orientation Center could provide a gift shop selling maps, posters, information, and locally made goods.
- The Visitor Orientation Center could accommodate a concession serving food and drinks.
- Visitor Orientation Center could provide restroom facilities from 8 am to 8 pm and serve refreshments from 10 am to 8 pm.

6. INTERPRETIVE FACILITIES

Findings:

- Cultural artifacts are recovered from various projects within the Kona region. Such artifacts are often stored elsewhere and are not often exhibited.
- No educational/interpretive indoor theatre facilities presently exist in the Kona area.
- Provision of an indoor theatre would enhance the educational and interpretive opportunities provided by the Visitor Orientation Center.

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on the Visitor Orientation Center

- No educational/interpretive outdoor amphitheater presently exists in the Kona area.
- An outdoor amphitheater would enhance the educational and interpretive programs presented at the Visitor Orientation Center.

Recommendations:

- Cultural artifacts recovered from Kona projects should be returned to Kona.
- The Visitor Orientation Center could provide space for storage, and the presentation of exhibits.
- Exhibits could be changed periodically to provide the community and the visitor with a continuing educational experience.
- Provide an indoor theatre for the Visitor Orientation Center.
- Provide an outdoor amphitheater for the Visitor Orientation Center.

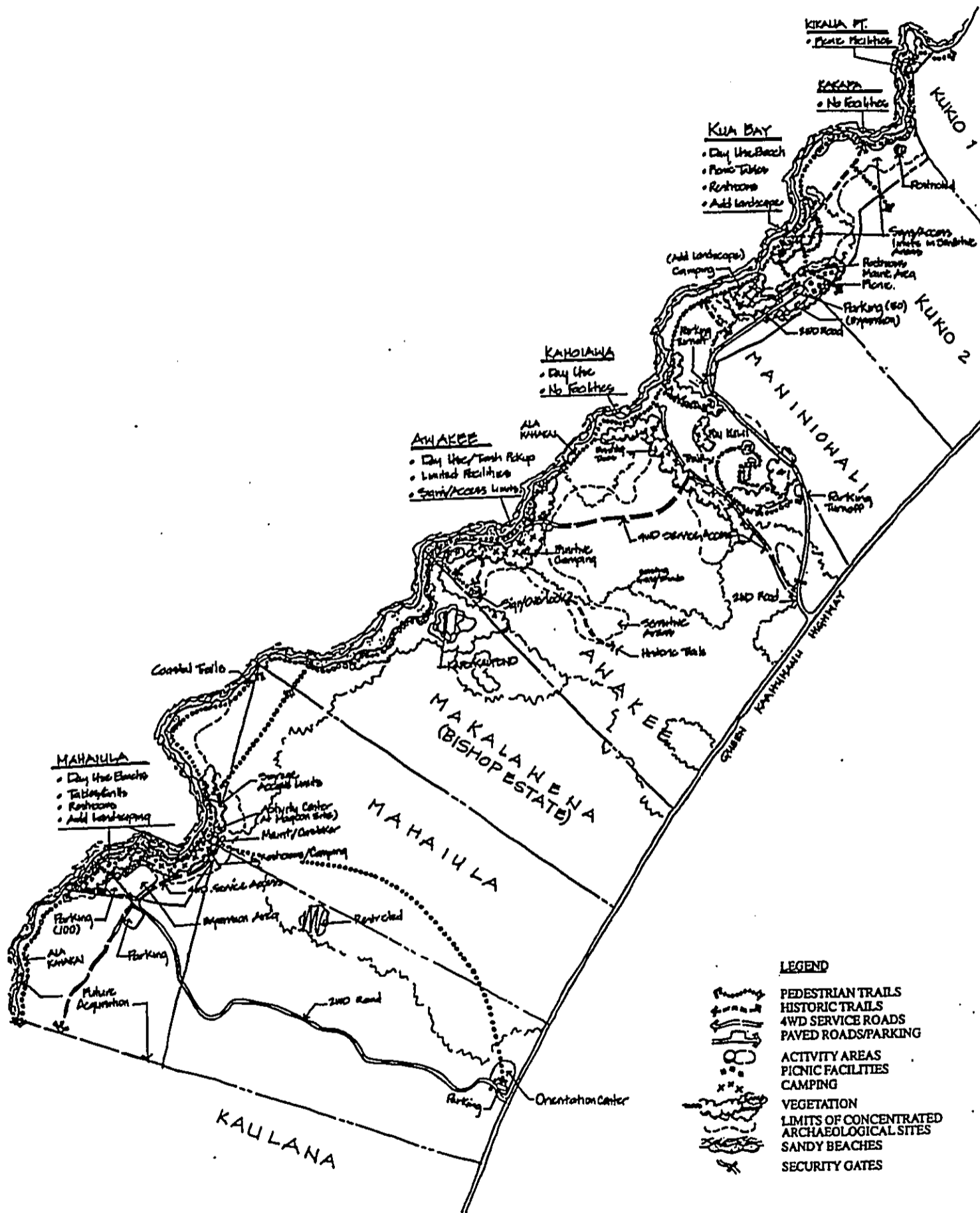
7. VIEW CORRIDORS

Findings:

- Views from the area along the Queen Ka'ahumanu Highway are unobstructed, open views that are not only beautiful and peaceful, but are also educational providing opportunities to interpret the natural and cultural landscape.
- All *ahupua'a* contained in the Park can be viewed from the location of the Visitor Orientation Center.

Recommendations:

- The Visitor Orientation Center could provide a site for outdoor seating and the viewing of the Kona coastal areas as well as mauka areas and Hualalai.
- Maintain and utilize view corridors in Park planning and design.



Department of Land & Natural Resources

Division of State Parks

Kona Coast State Park- Community Meeting No. 3

May 6, 1996

6:00 p.m. - 9:00 p.m.

Kealakehe Intermediate School Cafeteria

GROUP MEMORY - DRAFT

Welcome/Introductions

The meeting began with a welcome by Chairperson, Mike Wilson. Chairperson Wilson began by describing the importance of the Kona Coast area and spectacular park that cannot be compared. He acknowledged the work of the Task Force and planning team in their efforts to design the future with respect for Hawaiian culture being mindful of sustaining the key resources for the present as well as for future generations. The community's Kona Coast State Park presents a symbol of deterioration and vandalism, and the focus is to end this with the combined effort and support of the community and government. Success is based on identifying the resources and managing them as something we are proud of, earth's best resources.

Mike Wilson introduced Board of Land & Natural Resources member, Chris Yuen, who is working very closely with the development of the park plan.

The concept of having a Kona Coast State Park Ambassador is now a reality. The position is being funded by the Legislature, granted in this session. It is hoped that the entire funding package for renovation of the activities center, cultural and aquatic resources programs, and visitor center is granted in the 1997 Legislative session.

Hannah Kihalani Springer, Task Force member, also welcomed the community. Hannah brings the Cultural/Interpretive Perspective to the Task Force, her family comes from Kekaha. She reflected on the place as one that was settled in but stressed for water, "our ancestors were clever in meeting these challenges." Her hope is that all can come together with thoughts of how to best manage this place. Other Task Force members were asked to identify themselves with an introduction. The following members were present:

Fern Puli	Kaelemakule Family
Larry Mitchell	The Ocean Recreation Council of Hawai'i
Marni Herkes	Kona-Kohala Chamber of Commerce
Bob Okawa	Na Ala Hele Advisory Council, Hawai'i
Charles Supe	DLNR State Parks
Bob Nishimoto	DLNR Division Of Aquatic Resources
Barney Espinda	DLNR Boating & Ocean Recreation
Sara Peck	Seagrant
Lyn McIntosh	Kona Kohala Chamber of Commerce
Rod Oshiro	Na Ala Hele, State of Hawai'i
Francis Kuailani	National Park Service
Ruby MacDonald	Office of Hawai'ian Affairs

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OTHER COMMUNITY MEMBERS & RESOURCESPat Thiele
Chris YuenNa Ala Hele, State of Hawai'i
Board of Land & Natural Resources**Meeting Process Review**

Alice Paet-AhSing and Amy Luersen from the State Judiciary's Center For Alternative Dispute Resolution served as the group's facilitator and recorder. Project Team members include: Sherrie Samuels and Dan Quinn, DLNR Division of State Parks, and George Atta, Group 70 International. Participants reviewed the agenda and the purpose for this meeting:

- To provide the community with an update of the planning process and additional details of the Kona Coast State Park (KCSP) Phase I Development at Mahai'ula.
- To provide an opportunity to review the Task Force's agreements and recommendations for the Phase I Development Plan, and to gather input from community members.

Community members were urged to provide their input. Community input will guide the Task Force and project team in plan development. The plan will guide the management and use of recreation and both cultural and natural resources.

Planning Process and Objectives**Task Force Process and Products**

Sherrie Samuels from DLNR Division of State Parks next provided an overview and update of this planning process. The first community meeting was held in September 1994, followed by a meeting in April 1995 to present conceptual plan alternatives. Based on what was heard at the community meetings, the preferred alternative was to begin with a low use/low intensity conceptual plan. Community members also felt that it would be important to convene an advisory Task Force with membership of various interests to assist in the development of the Phase I Development Plan for Mahai'ula.

The Task Force held three meetings on November 1995, February and April 1996. Sub-committees were formed to work on the Visitor Orientation Center, Aquatic Resources Programs, and Cultural Resources Programs. Committee reports will be presented and are included in the evening's meeting packet. The Task Force plans to meet again to modify existing and develop other recommendations based on comments from the evening. Group 70 will then prepare an Environmental Impact Statement based on the draft Phase I Development Plan.

Phase I Mahai'ula Resources Overview of Phase I Alternatives

George Atta of Group 70, briefly reviewed both the natural and cultural resources found at the site. Flora and fauna have also been identified. A protection/enhancement plan for all species will be included in the Phase I process. A recently completed ocean survey will also be incorporated into the plan. There are cultural resources scattered throughout the site, with a higher concentration in some areas. The areas of high concentration will be the focal points for cultural education program. George expressed that personal histories and stories about the area are cultural resources that should be documented. He emphasized that the maintenance for all types of resources is an important issue for the Phase I Development Plan.

In the Phase I Discussion Draft, a number of activities were identified. Commercial activity was sited at the entrance and the beach areas, an ethno-botanical garden was identified for placement in one of two locations, eco-friendly toilets would be installed, however, camping was not included in Phase I. Various areas for parking, and the capacity of parking lots, as well as possible ways to limit or control access were discussed. It was noted that sustainability of the park is important and is partially dependent on management. Development would be incremental, starting low and increasing as needed. The scarcity of water will be a limiting factor in development options. The Task Force proceeded in discussions based on these alternatives and sub-committees have submitted recommendations on the Visitor Orientation Center, Aquatic Resources Programs, and Cultural Resources Programs. The sub-committees presented the following reports:

Cultural Resources

Hannah Kihalani Springer stated that the committee felt that what needed to be communicated and perpetuated at this site is not a particular period but a sense of graciousness that has prevailed at Mahai'ula and other similar places. She noted that cultural aspects permeated all areas of the park plan and management.

The period of time represented should be guided by what is there. There are three distinct periods to consider, pre-contact and early historic Hawaii, 1930's development around the Ka'elemakule - Magoon house, and the current plans for park development. The cultural landscapes of the open lava fields and the mauka - makai trails are also important aspects that should be preserved. Landscaping should take its cue from what is currently there. Working with existing vegetation, endemic and indigenous species should be favored and polynesian introductions should also be enhanced. Kiawe can provide useful shade, but it needs to be thinned and managed.

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The cultural resources committee felt that since there are no documented studies specifically for this ahupua'a, these should be conducted now. Oral histories should also be collected. The committee did not feel that commercial activity should be allowed at the beach area of the park, it should be clustered to the north nearer to the Visitor Center area instead.

Aquatic Resources

Sara Peck summarized the committee's recommendations by stating that planning must include the following key concepts:

- A vision, to preserve a sense of tranquil old Hawai'i, for future generations,
- A sustainable marine resource management plan which reflects traditional Hawaiian management systems as they can be applied today,
- A place to learn about the near shore ecosystems, where community members can learn, collaborate, and participate with the State on monitoring the resources,
- A place for families to re-create and nurture the soul.

She stated that this coastal interface is basically all we have left for the people to enjoy now and in the future. It holds all the attributes of the Kona Coast, the unique anchialine pools with endemic flora and fauna, the beautiful white sand beaches punctuated by lava rock buttresses, the shoreline plants, the tremendous sense of Hawaiian culture, past and present, and the opportunity for swimming, surfing, fishing and enjoying. The basic message is to strive for balance and sustainability. Start with limits, until a carrying capacity is established, then make changes.

Visitor Orientation Center

Marni Herkes explained that no one lives at the site. The Visitor Orientation Center would serve all visitors and local residents. The main intent is to educate and promote a sense of pride and sensitivity to the resources so that all who visit the site will want to take care of it. The proposed location for the Visitor Orientation Center is at the highway, near the entrance to the park. The Visitor Orientation Center would orient people to the park, point out the cultural aspects of the park, have a museum for artifacts from the site to be displayed and interpreted, and manage access (not control access.) If DLNR brochures with all the parks in the Kohala-Kona area were available at this center, it may serve to direct some traffic away from this particular park. The cultural museum should be located at a respectful distance from the commercial activity. The Visitor Orientation Center should be designed as a kipuka, a safe, friendly place with lava rock, and low buildings that would blend in with the landscape. There would be both an indoor theater and an outdoor amphitheater for educational and cultural activities.

Discussion: Community Comments

Unless noted, all responses were made by project team members.

- Does calling the area a "park" automatically trigger the Americans with Disabilities Act (ADA) requirement for improvements throughout the park?
Response: ADA requirements are facility specific and are not triggered by the name of the area. Further research will be made to verify this issue.
- Why is the State appropriating funds (\$1.375 million) to purchase an easement between Mahai'ula and Makalawena, when one already exists? Do those funds lapse or could they be used for this project instead? Also, the State should consult with the landowner before expending any funds.
Response: DLNR is researching current rights with respect to this piece of land. The funds were appropriated for the specific purpose of creating an easement and could not be re-directed to another project without going back to the Legislature. These funds expire in July 1998.

RE: CULTURAL RESOURCES COMMITTEE RECOMMENDATIONS

- Generally, what has been presented is an excellent job. The fisheries section is super. Commercial vending should be limited. Kayaks are a concern and any commercial rental of kayaks should be ruled out.
- Camping is a complex issue and it is suggested that camping not be included in Phase I, however, the report still needs to include the possibility of allowing camping in the future. There could be a mere outline of how camping might be implemented, e.g., the possibility of a permit only basis for residents. Campers may be able to help with management of the park.
- Using water as the impetus to help limit use of the park is a good idea. All water should be on a carry-in basis and people should carry out their rubbish.
- The Task Force should be commended for the work done on the plan. There is an opportunity to connect the Ala Kahakai trail with Ali'i Drive and feel that this should be done. If there are aspects of this project that would help or is related to connecting trails, it may be useful to be informed of the current discussions over connecting the Ala Kahakai trail with Ali'i Drive.
- Sections of this report are very well done. I agree that there should be no commercial activity in the park.

6

- The name of the park should be changed to Kekaha or Kaelehuluhulu as soon as possible. Naming it Kona Coast is not consistent with Task Force recommendations.
- The ahupua'a name, Mahai'ula is how the area is known. Any other name is not how the area is known.
- I support the concept that less water is better.
- Creating a repository for artifacts on site is an excellent concept.
- Creating a dry land botanical garden is an interesting idea.
- When examining the cultural resources list, people are missing. The area should be looked at as a "living park," with the family that comes from there doing the interpreting. Cultural protocol should be followed. The site should be used as an area to teach Hawaiians the Hawaiian way.
- Ka'elemakule family members responded that they have been and will continue to be a part of the development of the recommendations for this area.
- I support low intensity/use in the park. My concern is what happens when it goes to high intensity.

RE: AQUATIC RESOURCES COMMITTEE RECOMMENDATIONS

- It is unrealistic to exclude camping by kayakers. There should be a program that is similar to "back country permits" issued on the mainland. There should be a plan to allow an ocean approach because a complete ban may lead to abuse. It may be okay to ban it at Mahai'ula if it is allowed somewhere else along the coast of the park.
- This is a natural area that should be left open for study. The park presents the opportunity for hands-on learning especially for students who have limited access to this type of learning environment.
- Lay net fishing is a traditional Hawaiian practice. It should not be banned from this area. Otherwise, traditional Hawaiian rights for gathering are limited.
Response: A task force member felt that the ban on lay net fishing referred only to commercial fishing.

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- There may be a conflict with long line baited hooks and swimmers. This is a safety issue, as swimmers may accidentally get caught with a hook. There may also be conflicts between traditional uses and practices and modern uses.
- The Marine Fisheries Management Area (MFMA) language should be clear and specific about what fishing techniques will be allowed or not allowed and the reasoning behind any decisions for inclusion or exclusion of various techniques.
- Traditionally, the konohiki would manage the resources of the area. Will this be managed by the State or by the people?
- View planes should be protected.
- This park is different from others. The Task Force should revisit the intent of this park.

RE: VISITOR ORIENTATION CENTER RECOMMENDATIONS

- The concept of a visitor orientation center is good but another visitor center has also been proposed just five miles away at the National Park. These two centers should be looked at together because we need to minimize overlap.
- Task Force should create a "user committee" to identify uses that should be encouraged, condoned, or prohibited. The uses might include activities of island residents, off island visitors and native Hawaiians.
- The mission of this park should not be exclusive. The park is for all the people of the State, not separating native Hawaiians from other island residents.
- I was late coming to this meeting, but from what I've read and heard thus far, I think that this whole plan is a fantastic endeavor. I work with the challenged and the aged. Trails can be very helpful therapy and should be made available for pedestrians, bikes and wheelchairs. Access to the beach for wheelchairs should also be considered.
- Coastal trails should connect old traditional footpaths, some could be paved for bikes or wheelchairs.
- Some of what looks like old trails may be donkey or pig trails and not human trails. Need to be sure of what trails should be connected or paved.
- There is limited camping on this island. Camping should be allowed somewhere in the park for hikers along the Ala Kahakai trail and for kayakers.

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- An alternative management style was offered: Local knowledge and living/experiencing the life, being the key for management, rather than looking to documented studies on how to manage the resources. "Malama i ke kai, malama i ke aina, kapulu the land." Understanding and caring for the sea and the land and working with the plants... that is the way to learn the culture. We can restore the beauty of Hawai'i by educating each other and developing this type of life in the park. We can share our mana'o and lifestyle.

Subsequent comments received:

- Leave the natural beauty as a place for peace and rejuvenation. Do not allow any imposing development.
- Spruce up the Magoon house to make it safe.
- Open the gate every day and early (perhaps at 6:00 a.m.) to allow surfers to come and offering a greater amount of time so that the number of surfers would be spread over time. This would help in reducing the crowd at popular surf spots.
- I support the expansion of the Kona Coast State Park. Consider providing camping sites (by permit only, bikeways and jogging paths throughout the 7 mile stretch, and an on-site caretaker to provide security, etc.

There is a need for more shoreline access. A nice example of shared beach with a resort development is the Royal Waikoloan, where there is separation with equal shared use, and there is adequate parking. A worst case scenario would be restricted access to resorts because of limited parking. Have experienced harassment for wanting to use the beach at the Kona Village and as a result my children and I had to hike a long way.

There should be a public pathway at the high water mark shoreline all around accessible shorelines with separate public facilities where there are existing facilities for resort guests.

Next Steps

A final Task Force meeting will be held to refine the recommendations based on comments from the community. The draft Plan will then go to the Board of Land & Natural Resources for their approval. An EIS will be prepared upon Board approval.

DLNR will continue to look at immediate issues and maintaining the resources. The overall vision of the park needs to be clear.

With no further comments, the meeting was adjourned.

JUL 11 1996

Dear Task Force Member:

**Kona Coast State Park
Task Force Meeting No. 4**

Our fourth Task Force meeting has been scheduled for Wednesday, July 31, 1996 from 4:00 to 7:00 pm. The fourth meeting will be held at the Kona Coast State Park, at Mahai'ula at the Old Magoon House. Since the park is closed to the public on Wednesdays, staff will be stationed at the park entrance at Queen Ka'ahumanu Highway between 3:00 pm to 4:00 pm, to open the gate for you. Some of us will be bringing a pot-luck pupu or snack and refreshments, please feel free to do the same, if you wish.

The agenda for Task Force Meeting No. 4 is enclosed along with a copy of the group memory for Community Meeting No. 3, held on May 6, 1996. Please review the meeting agenda. Please note that we plan to wrap-up discussion of the planning issues and spend a major portion of the meeting on an implementation plan of action for the next six months. This Implementation Plan is being prepared by staff and will be available as a handout at this meeting.

We hope that you will be able to join us for this important Task Force meeting. Mahalo for your continuing participation and support for the Kona Coast State Park.

Sincerely,

/s/ DANIEL S. QUINN

for
RALSTON H. NAGATA

Enclosures: Task Force Meeting No. 4 Agenda
Community Meeting No. 3 Group Memory

SS:ss

**KONA COAST STATE PARK
TASK FORCE MEETING NO. 4
Wednesday, July 31, 1996
4:00 to 7:00 pm
at the Old Magoon House at Mahai'ula**

AGENDA

**Welcome and Review of Agenda and
the Group Memory for the Community Meeting**

Quick Overview of Conceptual Plan and Phase I Development Plan

Consultant Presentation on Selected Issues

1. Need for an Interchange at Queen Ka'ahumanu Highway
2. Compliance with Americans with Disability Act (ADA)

Wrap Up of Planning Issues

1. Marine Uses in the Nearshore Areas; Options for Management
2. Architectural Design Guidelines for the Visitor Center and Other Structures within the Park

**Implementation Plan for Mahai'ula -
the Next Six Months**

1. Six Month Timetable; Preparation for the Up-Coming Legislative Session
2. Renovation of Structures and Associated Budget
3. Department of Public Safety Renovation and Temporary Residence on Site
4. Community Participation: Painting, Fund-raising, Educational Mooring
5. Cultural Plan with the Polynesian Voyaging Society

Department of Land and Natural Resources
Divison of State Parks

**Kona Coast State Park
Task Force Meeting No. 4**

July 31, 1996
4:00 p.m. - 6:00 p.m.
Mahai'ula - Old Magoon House

GROUP MEMORY - DRAFT

Welcome and Introductions

The meeting began with a welcome by Department of Land and Natural Resources (DLNR) Chairperson, Mike Wilson. Chairperson Wilson thanked the Task Force members for their commitment, stating that they had come a long way in the planning process for this park. He also stated that there was still a long way to go and that he would be talking about the next steps, after this meeting.

Alice Paet-AhSing and Amy Luerson, from the State Judiciary's Center for Alternative Dispute Resolution served as the group's facilitator and recorder. Alice asked Brother Joseph Lui if he would kindly offer a pule.

Project Team members include: Daniel Quinn and Sherrie Samuels, DLNR/ Division of State Parks, Francis Oda and George Atta, Group 70 International, Inc. Task Force members and community members were asked to introduce themselves. The following were present:

Task Force Members

Larry Mitchell	The Ocean Recreation Council of Hawaii
Marni Herkes	Kona-Kohala Chamber of Commerce
Roger Harris	Kona-Kohala Chamber of Commerce
Sharon Ackles	Kona-Kohala Chamber of Commerce
Bob Okawa	Na Ala Hele Advisory Council, Hawaii
Hannah Kihalani Springer	Cultural/Interpretive Prespective
Nicole Lui	Kaelemakule Ohana
Fern Pule	Kaelemakule Ohana
Joseph Lui	Kaelemakule Ohana
Kaipō De Guair	Kaelemakule Ohana
Clarence A. Mederios, Sr.	Kaelemakule Ohana

Kona Coast State Park
Task Force Meeting No. 4
July 31, 1996

Ex-Officio Task Force Members

Rodney T. Oshiro	DLNR/Na Ala Hele
Frank Kamahele	DOT/Airports Division

Resource Agencies

Bob Nishimoto	DLNR/Division of Aquatic Resources
Pete Hendricks	DLNR/Division of Aquatic Resources
John Kahiapo	DLNR/Division of Aquatic Resources
Barney Espinda	DLNR/Division of Boating and Ocean Recreation
Marc Smith	DLNR/State Historic Preservation Division
Charles K. Supe	DLNR/Division of State Parks
Morris Ota	DLNR/Division of Land Management-Water and Land Development
Charles Nahale	DLNR/Division of Conservation and Resources Enforcement
Athline Clark	DLNR/Volunteer Coordinator
Aulani Wilhelm	DLNR/Public Information Officer

Other Community Members and Resources

Chris Yuen	Board of Land and Natural Resources
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Presentation on Selected Issues

Interchange at Queen Ka'ahumanu Highway

Sherrie Samuels notified the group that the Department of Transportation (DOT) has put out to bid changes at the intersection of the Queen Ka'ahumanu Highway and the park access road. An interchange is to be constructed at the Mahai'ula entrance to the park and will include a left turn storage lane into the park for visitors coming from Kailua-Kona. Construction is scheduled to begin within 6 months and will cost approximately \$ 75,000. Questions were raised about the possibility of a longer (500 feet) left turn storage lane and also a right turn lane when coming from Kohala, if contingency funds were available. It was suggested that a right turn lane exiting out of the park onto the highway, may also be needed. DOT is moving forward with this initiative independent of the plans being developed by the Task Force, to address immediate concerns due to traffic safety. Chris Yuen noted that this initiative locks the Task Force into the present access road location.

Compliance with Americans with Disability Act (ADA)

George Atta reported on information regarding the ADA. At a previous meeting, Task Force members wondered if the facility was considered or named a "park", would everything at the location need to comply with ADA requirements? George stated that the ADA does not have specific requirements, the ADA offers guidelines. There are varying degrees of accessibility. They are Challenge I, II, and III. Guidelines begin with improvements with less than a 5% slope at Challenge I, and have basically no improvements at Challenge III. George stated that all new structures (i.e., restrooms and the Visitor Orientation Center) would have to be accessible, including part of the parking area with a path to the new structure. Restoration of the old Magoon House to an Activity Center would require the ground floor to be accessible. Depending on the use, the second floor of the existing structure may not have to be accessible by ADA guidelines. Access from the parking area to the Activity Center would be required. George reiterated that the ADA sets forth guidelines, and added that sometimes, public agencies are allowed some degree of flexibility. He suggested that certain areas of the park could be designated as Challenge I, II or III, which would dictate the kinds of improvements for accessibility needed. In response to addressing access to compost toilets that sit 4 to 8 feet above the ground, George noted that a ramp that wraps around the structure would be built to meet ADA guidelines.

Discussion: Responses were made by George Atta unless otherwise noted.

Question 1: Depending on what designations are made for certain areas, how would it affect what we do on the ground?

Response 1: There would be aspects to consider such as, the width of pathways, the surface type, etc. If there is a board walk, the cracks would have to be 1/2 inch or less. There are many options, and we would have to deal with slopes and surface hardness, etc.

Question 2: So, will these requirements affect cost?

Response 2: What may be included is somewhat independent. There are no requirements from the parking area to the pavilion area, however, making an accessible pathway to the building, is strongly encouraged. But such things are reviewed on a case by case basis.

Comment: The final decision might be challenged.

Wrap Up of Planning Issues

Marine Uses in the Nearshore Areas and Management Options

Bob Nishimoto reported on fisheries management steps that are currently underway. Coral reef monitoring and protection of habitat nursery area in the bays that are at risk, are a focus for management. As a first step, Bob hopes to boost populations, but not with the intention to make more fish to eat, but to add growth capabilities. One strategy is to raise and tag mullet to monitor impacts. Bob reports that projects are being designed to include the kapuna, the folks who live in the area, volunteers, and businesses, and to provide educational opportunities.

John Kahiapo reports that he and Pete Hendricks are conducting coral monitoring around Kealakekua Bay and have control and treatment areas. They are looking at levels of impacts from user groups. The Division of Aquatic Resources (DAR) has assistance from University of Hawaii students in the Quest Program, who provide quantitative ecological survey techniques, at a minimal cost to the State. Sites have been set up to photograph and document coral species found in the area, and to monitor their growth.

DAR has another control area at Mahai'ula, by the caretaker's place, as a station. They are looking at setting up another station by the shower area.

John also reports that at the Kona Coast State Park, through the Quest Program, baseline studies are being done at each ahupua'a, from Mahai'ula to Kua Bay. Transect lines have been placed for fish counts and amounts of wana, coral and limu.

Pete Hendricks' biological work further supports the studies that John described. Pete reports that he has had a productive meeting with dive tour operators and is working with them on an "adopt-a-reef" concept, to monitor corals in the area. Pete suggested that dive tour operators may help by providing information on the reef's health to establish baseline data.

Pete expressed that Mahai'ula is a premier visiting site that offers an ideal area of educational opportunities for school children to increase their awareness of the resource and ecosystems. There is an educational program in place that focuses on fishing education that leans towards conservation. About 750 students between the 3rd and the 7th grades have been involved. A number of schools participate in the program. Pete commented that he hopes that kokua is provided, so that the program can continue to build awareness among the keiki.

Kona Coast State Park
Task Force Meeting No. 4
July 31, 1996

Bob stated that the data collected satisfies scientists, but there still needs to be more and continued studies. DAR has offered to do informative briefings for visitors. Bob would like to create and implement an interactive educational component. As an example, a chart with daily/current records of the corals' health, could be developed and displayed. Dive tour operators could educate visitors with the use of such a chart.

Bob commented that he welcomes input from the community that would advise DAR of specific areas that they feel need to be protected.

Architectural Design Guidelines

Task Force members provided additional suggestions for the design of the structures throughout the park. There was consensus that in general, the development in the park should preserve the essence and feel of the area and be designed to fit with and convey those feelings.

- The Activity Center should be designed with beach house characteristics, and constructed with materials that compliment and retain the ambiance of the area.
- The roofs' structural design should be consistent and designed with the same character, and blend into the area.
- When planning the site for a structure, the location chosen should be mindful of view planes.
- Landscaping should be used to complement good architecture, not hide bad architecture.

Planning Process: Closing To This Phase

Plans developed for the Kona Coast State Park, with the assistance of this Task Force will be reviewed for acceptance. Group 70 will now proceed in preparing the draft Environmental Impact Statement (EIS). Community members will have further opportunity to comment on the plan in that process.

Task Force members indicated an interest in continuing to work with DLNR Division of State Parks and requested that members are updated on the plans progress. Sherrie Samuels assured members that they will be notified of other opportunities to participate in future planning processes.

In closing, Alice acknowledged and commended participants for their diligence and work as Task Force members. "Your continued participation and persistent efforts are representative of elements that make for a successful model of community based

Kona Coast State Park
Task Force Meeting No. 4
July 31, 1996

planning. I would like to extend a warm mahalo for your collaborative efforts, and allowing me to be a little hard on you at times, and apologize for being abrupt or appearing to have been rude when cutting discussions short. I will continue to follow this community's efforts in the many different actions occurring along this coast as well as at other regions on the Big Island. I wish the best for your community and our 'aina."

Implementation - The Next Steps

After the wrap-up of the planning issues, the Task Force meeting continued with a discussion of the next steps that the Department of Land and Natural Resources wishes to take to immediately improve Mahai'ula.

Chairperson Mike Wilson conducted the rest of the meeting and asked the Task Force members if they would remain together as a group, perhaps under a different name, to help implement improvements at Mahai'ula. There was general agreement to stay together as a working group.

Chairperson Wilson noted that this would require additional meetings that DLNR would set and coordinate. He indicated that he wants Kona Coast State Park to be a park that belongs to the people of the Big Island. He also indicated that the Governor is interested in State Parks as a "String of Pearls" and that the Na Pali Coast State Park and the Kona Coast State Park are two of these parks described as pearls.

Renovation of Mahai'ula Structures

Chairperson Wilson noted that the estimates to renovate the Old Magoon house and create an Activity Center are around \$ 400,000, however some of the cost may be offset by having inmates stay at Mahai'ula for 4 to 6 months to do some of the basic clean up and renovation work. Chairperson Wilson noted, however, that he wants these decisions on handling renovation to be community decisions.

Fund Raising

The community's role in helping raise money for the project was discussed. Use of the inmates would cost about \$100,000 and might not get started before the next Legislative session. In the interim, it was suggested that if the community could raise \$100,000, then DLNR could go to the Legislature, with the community, and ask for matching funds.

Kona Coast State Park
Task Force Meeting No. 4
July 31, 1996

The Task Force was asked to:

- Develop clarity on the cultural and marine programs so that money can be raised to support each program;
- Guide DLNR in the type of renovation wanted at Mahai'ula;
- Meet three to five times before January;
- Go together with DLNR to the Legislature to request funding;
- Consider formalizing the group, perhaps as a nonprofit corporation.

Chairperson Wilson stated that he will help keep the projects alive in the Legislature, but since DLNR is a paid advocate for the environment, it would help to have community members present also.

Task Force members continued their discussion of using inmates for the work. Concern was expressed that use of inmates might be taking work from public workers. Chairperson Wilson responded that since it would be for a short term period and that it was probably okay to use inmates. A suggestion was made that people sentenced to community service, such as those convicted of DUI, or those on work release, could be used instead of felons, and that the Judiciary should be requested to have judges assign community service at Mahai'ula. A suggestion was also made to involve the Carpenters Union to help teach the inmates during the renovation work, to the benefit of all.

In discussing the next steps, the question was asked if anything could be done with the structure prior to completion of the EA/EIS/SMA process? Staff responded that improvements for public health and safety can be done, but new construction would require an EIS and SMA. Staff also indicated that Hawaii County would be consulted regarding permit requirements.

Three concerns about the proposed process were identified:

- A project costing \$100,000 requires a major SMA permit.
- Using inmates, essentially unskilled labor, raises questions of liability, particularly since the improvements are for public health and safety.
- There continues to be vandalism at the site.

Chairperson Wilson responded by stating that 1) the Department of Public Safety will provide a level of supervision for the inmates, 2) if an SMA is needed from the County, then DLNR will go forward with the required SMA permit process, and 3) vandalism will not be an issue because there will be a Park Ambassador living on site, prior to the time any work would start. He also noted that the Department would like to have the Activity Center in operation within 12 months.

Kona Coast State Park
Task Force Meeting No. 4
July 31, 1996

Chris Yuen asked if a "short list" of projects could be developed. Mr. Yuen also stated that the "tone of graciousness" desired by the Task Force at the park should be implemented now with improved signage. His thought was that signs should state "You are Welcome Here" with rules, but without the "don't do this....don't do that" statements. Chairperson Wilson suggested the community think about a sign with an appropriate Hawaiian message.

The next Task Force Meeting was set for Thursday, September 26, 1996 at Mahai'ula. Chairperson Wilson then asked the group to divide into their three committees, with Charlie Supe chairing the Renovation Committee, Hannah Kihalani Springer chairing the Cultural Resources Committee and Bob Nishimoto chairing the Aquatic Resources Committee.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



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

DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

September 5, 1996

CHAIRPERSON
MICHAEL D. WILSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Dear Task Force Member:

**Kona Coast State Park
Task Force Meeting No. 5**

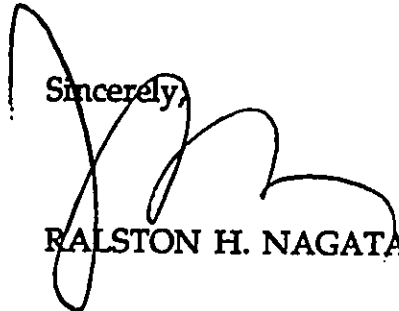
Our next Task Force meeting has been scheduled for Thursday, September 26, 1996 from 4:00 to 6:00 pm. This meeting will be held at the Kona Coast State Park, at Mahai'ula at the Old Magoon House. The meeting agenda is enclosed along with a copy of the group memory for Task Force Meeting No. 4. Please note that if you arrive late, please let yourself in through the chain gate, and put the chain back up.

We want to thank all members for the effort that they have put into completing the planning portion of the Task Force work. The consultant and staff will now work toward finishing the plan and EIS. As the Task Force continues to meet, any new additional information provided by the Task Force will be considered until the plan is completed.

We also want to extend a warm thank you to all the Task Force members that have provided pot luck pupu for us at our meetings ! Mahalo !

We hope that you will be able to join us for Task Force Meeting No. 5. Mahalo for your continuing participation and support for the Kona Coast State Park.

Sincerely,


RALSTON H. NAGATA

Enclosures: Task Force Meeting No. 5 Agenda
Task Force Meeting No. 4 Group Memory

**KONA COAST STATE PARK
TASK FORCE MEETING NO. 5**

**Thursday, September 26, 1996
4:00 to 6:00 pm
at the Old Magoon House at Mahai'ula**

AGENDA

Welcome and Review of Agenda

Group Reports

Facility Improvements/Renovation

Cultural Program

Marine Program

New Signs for the Park

Volunteer Program

Fund Raising

Selecting Date for Next Meeting

Closing

Kona Coast State Park

Task Force Meeting No. 5

Thursday, September 26, 1996, 4:00-6:00 p.m.

Mahai'ula, at the Old Magoon House

Name	Organization	Address	Telephone	fax
Lenny Mitchell	TORCH	Po Box 591 Holuloa	324-6603	Same (check)
M.B. Dennis	OCEAN SAFARIS	P.O. 515 Kailua-Kona	326-4699	same
Betsy Morrison	Kayak Discovery Tours	87-3167 Honu Ma'e Rd.	328-8911	328-1705
Tancee Palma-Glennie	Protect Kohalaiki Ohia	ParB 582 Keaholekua	325-6175 (Karen)	325-6322
Kepi Mah	554 Keanaona St	Hik 96700	957-6889	-
Lawrence a. Malinao Sr.	Olona	86-3666 Mgmalakalan Hwy Capt. Cook		
SARA PECK	U.S. Sen Grant	Po Box 489 Kailua-Kona	329-2861	329-6998
Bob NESHIMOTO	DAR	P.O. B 136 Hwy H	974-6221	974-8222
Clarence Medeiros Jr	Ohana Ka'elemakole	806-3672 901. Ma'aloa	328-2074	Same
Kayo De Guar	Ohana	13-1195 Mahulani Dr	325-7890	
Robert Harris	Wahala Chubbing Co	PO Box 1119 Kailua Kona	325-8425	325-1400
Charles Nohale	Spokane - DUNE	P.O. Box 310 CapCost	329-3114	
DAVID FARRAS	State House	Box 2523 FK	3256357	3250128
Sharon Kono	Wahala Chubbing Co	PO Box 571 Kailua Kona	329-1758	329-8564

RECEIVED AS FOLLOWS

Kona Coast State Park

Task Force Meeting No. 4

Wednesday, July 31, 1996, 4:00-7:00 p.m.

Mahai'ula, at the Old Magoon House

Name	Organization	Address	Telephone	fax
WHEELER, JOHN	D-LIV R	P.O. Box 250 KKA	326-4925	
GARDNER, KEVIN	DONOR ST. POKIA	75 AUPUNI ST	974-6200	
MORSE, MICHAEL	OFF	15 6706 Lanana Pl Ste 107	339-7328	336-7928
STRAHL, UELSHAE	STORCH/LOCKER/FAMILY	75-5819 Alii Dr 96740	329-7585	
ALAN KIBISSI SPRINGER				

Department of Land and Natural Resources
Divison of State Parks

**Kona Coast State Park
Task Force
Implementation Meeting No. 1**

September 26, 1996
4:00 p.m. - 6:00 p.m.
Mahai'ula - Old Magoon House

GROUP MEMORY - DRAFT

Note: This meeting begins a new phase for Kona Coast State Park, in which the staff and community begin implementing the Task Force recommendations: renovating existing facilities, and developing cultural and marine programs for the Mahai'ula education center. Hereafter, the meetings will be described as "Implementation Meetings".

Welcome, Introductions, Review of Agenda

The meeting began with a welcome by Department of Land and Natural Resources (DLNR) Chairperson, Mike Wilson. Aulani Wilhelm, DLNR Public Information Officer and Athline Clark, Departmental Volunteer Coordinator facilitated the meeting. Aulani asked Clarence Medeiros, Jr. if he would kindly offer a pule to begin the meeting. Following the pule, Task Force and community members were asked to introduce themselves. The following were present:

Task Force Members

Larry Mitchell
Marni Herkes
Roger Harris
Ruby McDonald
Bob Okawa
Hannah Kihalani Springer
Kaipo De Guair
Clarence A. Medeiros, Sr.
Janice Palma-Glennie

The Ocean Recreation Council of Hawaii
Kona-Kohala Chamber of Commerce
Kona-Kohala Chamber of Commerce
Office of Hawaiian Affairs
Na Ala Hele Advisory Council, Hawaii
Cultural/Interpretive Prespective
Kaelemakule Ohana
Kaelemakule Ohana
Protect Kohanaiki Ohana

Kona Coast State Park
Task Force
Implementation Meeting No. 1
September 26, 1996

Teri Leicher
Lin MacIntosh

The Ocean Recreation Council of Hawaii
Kona-Kohala Chamber of Commerce

Ex-Officio Task Force Members

Rodney T. Oshiro
Sara Peck

DLNR/Na Ala Hele
University of Hawaii Sea Grant

Resource Agencies

Bob Nishimoto
Pete Hendricks
Charles K. Supe
Morris Ota

DLNR/Division of Aquatic Resources
DLNR/Division of Aquatic Resources
DLNR/Division of State Parks
DLNR/Division of Land Management-
Engineering Branch
DLNR/Division of Conservation and Resources
Enforcement
State Parks Interpretive Program Manager

Charles Nahale

Martha Yent

Other Community Members and Resources

Alex Cadang
Dave Tarnas

Governor's Representative
State House of Representatives (North Kona-
Kohala)

Mike Wilson

Chairperson, Department of Land and Natural
Resources

Chris Yuen
Kepa Maly
Mike Dennis
Betsy Morrigan

Board of Land and Natural Resources
Cultural Historian
Ocean Safaris
Kayak Historical Discovery Tours

Staff

Aulani Wilhelm
Athline Clark
Sherrie Samuels

DLNR/Public Information Officer
DLNR/Volunteer Coordinator
State Parks Planning Branch

Group Reports

Facility Improvements and Renovation

The Facility Improvement and Renovation Committee met once between Task Force meetings. Charlie Supe presented committee's findings. Committee members include Charlie Supe, Clarence A. Medeiros, Sr., Ka'ipo De Guair, Fern Pule, Morris Ota, Frank Kamahale, and Joseph Lui.

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Funding Renovations: The committee discussed the fact that there are no monies presently available to undertake renovation of structures, and that the use of Kulani prison labor is estimated to cost \$118,000, plus \$20,000 per month for staff overtime should the prisoners be housed on site during the project. The estimated cost to use Kulani inmates could increase for various reasons: the number of inmates available will vary from 4 to 10 and work may stop for one or several days due to lock-ups, availability of ACOs and vans to transport prisoners.

Further clarification was provided on the initial estimate of \$ 400,000 for renovation work. The balance of the \$400,000, after renovation work, would go to developing the education center and all of its marine and cultural programs. (Note: The current Department budget request is for \$330,000 for renovation and program development; see discussion below.)

Scope of Work/Demolition of Structures that will not be Renovated: The scope of work at Mahai'ula was discussed and would include demolishing existing structures that will not be retained and hauling debris to the county landfill, renovation of the two-story Magoon house to make it useful as planned by the Task Force for an education center.

Another demolition option was mentioned - burning the structures that need to be removed, with the assistance of the Fire Department - an action that could also serve as a Fire Department training exercise. It was suggested that DOT Airports Division could bring a loader and truck to assist State Parks staff in removing debris and hauling it to the dump. It was noted that a bulldozer would still be needed.

Americans with Disabilities Act (ADA) Compliance: The Task Force again discussed ADA compliance and in particular whether or not it would be necessary to provide access to the second floor of the Magoon house. This will be confirmed with the consultant who has reviewed ADA requirements.

Park Entrance: Clarence Medeiros provided a sketch of his design for a park entrance structure (copy attached). Clarence's design is a draft, and includes ki'i, representing the twin gods, Kamanawa and Kane'eaumoku, that appear on the Royal seal. The style of ki'i was also discussed; several options are possible.

The entrance sign would include "Mahai'ula Apana", rather than just Kona Coast State Park. It was noted that the entrance to the Park was actually located in the ahupua'a of Kaulana rather than Mahai'ula. It was suggested that it is the destination that is being named, rather than the actual entry point. Also, the actual name of the entire park remains undecided, since other options such as Kekaha State Park, or Kekaha Coastal State Park have been suggested. Recommendations on the park name will be considered by the Cultural Committee.

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Visitor Center Building (to be located at the Queen Ka'ahumanu Highway Park Entrance): At the committee meeting, Frank Kamahele suggested using the Keahole Airport departure building design as a model for the Visitor Center. Frank has indicated that he will ask the original architect to make plan changes to accommodate a visitor center, on a volunteer basis. The Keahole Airport building has a roof and post design that could be modified to accommodate a mesh roll down gate, similar to the Old Kona Airport State Recreation Area Pavilion. The modifications could also include office space for privacy and security. Additional information on this subject will be presented at future Task Force meetings.

Fund Raising: At the committee meeting, Fern Pule suggested having a fund raiser. She was thinking about holding a concert or musical fund raiser at one of the Kona hotels. (Note: Fund raising is also discussed in greater detail below.) The money raised would be used for park renovation work. (Note: Fund raisers cannot be held at the park because of the Departmental Administrative Rule 13-7 which does not allow fund raisers on any lands managed by the Department).

Establishing a "The Friends of Mahai'ula" or "Friends of the Park" group was also suggested. The committee suggested writing to the Department so that the group could be recognized and have some kind of official status. (Note: At present, there are "Friends of the Parks" groups associated with the Puna and Ka'u Outdoor Circle organizations, also, the Honomu Community Association takes care of Akaka Falls State Park).

Water Line. Also it was noted that the State Department of Transportation is proposing to install a fuel line from Kawaihae to Keahole. It was suggested that DLNR State Parks may be able to "piggy-back" on this project and find a way of bringing a water line from the highway to the Mahai'ula shoreline. The Task Force also noted that there are other nearby developments under consideration by the County Planning Department, such as the proposed residential development to be located mauka of the highway. Such developments must also develop infrastructure that may help the park in servicing its infrastructure needs.

Special Management Area (SMA) Permit Requirements: Charlie Supe spoke with the County of Hawaii staff on SMA permit requirements. They indicated that demolition can be done without an SMA permit, unless it is very close to the shoreline (there is a minimum setback of 40 feet; a Certified Shoreline survey is required to establish the setback line). Maintenance requires no SMA permit. The County asked that State Parks provide a full description of all work to be done for their review. They will then determine whether or not a permit will be required.

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Lead-Based Paint Assessment: Sherrie Samuels presented information on the presence and abatement of lead-based paint, based on the findings of the State Parks consultant, Certified Industrial Hygiene Services, Inc. The consultant took 14 paint samples from the structures on site. The samples were analyzed and compared with the Environmental Protection Agency (EPA) standards, which define "Lead-Based Paint as paint with more than 0.5% lead by weight.

The Magoon House, the toilet/bath house and the warehouse were the only structures with lead-based paint containing less than 0.5% lead by weight. Paint on all other structures on site was found to contain more than 0.5% lead by weight. The consultant recommended that structures with paint containing more than 0.5% lead by weight be removed from the site. The State will document the structures that are to be removed, with the intention of one day reconstructing some of the structures for use in interpretation of the earlier life at Mahai'ula.

Although not required, abatement of lead-based paint in the Magoon House, toilet/bath house and the warehouse can be accomplished in several ways. One cost-effective method is encapsulation of the paint with a good coat of encapsulating paint, i.e., best quality epoxy-based paint or elastomeric-2 compound. The consultant suggested that this kind of paint will likely last longer than the structures that it is used on.

It was noted that if the desire was to get rid of all of the lead-based paint regardless of its percent by weight, it would be more cost effective to simply remove the wall panels from the Magoon house, toilet/bath house and the warehouse, and install new paneling, rather than remove the paint from the existing panels.

Regardless of what action is taken, the Occupational Health and Safety Administration (OSHA) guidelines must be followed to insure the work is done safely.

Cultural Program

Hannah Kihalani Springer reviewed the Task Force's earlier recommendations on cultural programs. The recommendations are outlined on the attached easel notes. In discussing the Cultural Program, Hannah noted that Clarence's selection of Kamanawa and Kane'eaumoku was most appropriate since these gods, twin brothers, moved among the ruling chiefs.

Hannah suggested that the hydrologic cycle be included in the cultural interpretation and education. She noted that the culture provides the underlying values for the area and as such, cultural aspects should be woven into all park programs and interpretation. For example, salt deposits and fish populations are part of the culture.

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The damage to kou by a moth was also noted, as well as the fact that fountain grass is spearding across the lava flow. The question was asked, "How do we deal with this and other pests?" Fountain grass, at this stage, is still controllable.

Hannah suggested that "Kekaha" is a good name for the park. While the name has fallen out of use for about two generations, it is a subdivision of Kona, and is documented as such, in the census and in newspapers. The cultural committee will develop recommendations on appropriate park names. It was noted that in selecting a new name, the Task Force will need to reach concensus. Hannah reminded the Task Force that it should pay attention to the ahupua'a boundaries and be aware that each ahupua'a had its own ki'i and spirit.

Kepa Maly, a cultural historian, was also introduced. Kepa has prepared bibliographies and documented oral history provided by Kekaha families. It was noted that oral histories contribute greatly to our sense of history for the area.

Marine Program

Bob Nishimoto reviewed the Task Force's earlier recommendations on marine programs, many of which address education. These recommendations are also included in the attached easel notes. Bob noted that the key is the monitoring of coral, and that he would like to develop a snorkel approach to monitoring coral. Larry Mitchell indicated his willingness to work with volunteers to accomplish this. While fish counts are not always reliable, with coral, photographs can be taken and later compared. Photos are useful in giving talks to volunteers and in encouraging more to join in the monitoring program. The volunteers provide the data enabling the State to monitor the condition of the coral.

Anchialine ponds should also be surveyed and monitored and an interpretive program designed for them. In the near future, a creel census project will be undertaken under the Main Hawaiian Islands/Marine Research Investigation (MHI-MRI) Program. In addition, the University of Hawaii Marine Options Program will be running a field school for underwater archaeology at Kealakekua next summer. It was noted that the Steamer "Maui" was sunk near Mahai'ula in the 1920s, and suggested that Mahai'ula could serve as training area for this program. Bob also noted that tag and release programs will need a central place to compile data and the Mahai'ula could provide this.

Regarding moorings, all agreed that it was appropriate to hold off on installing any moorings of the point at Mahai'ula - an action consistent with the Task Force's earlier recommendations. The mooring will not be installed without consultation regarding the fishing koa. It was noted that two moorings will be installed off Makalawena and two

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have been installed at Kua Bay. Levels of protection for marine resources were also discussed.

Committee Assignments

Committees were requested to prioritize their top five (5) topics/projects for implementation and outline the steps required to achieve the highest priority project.

New Signs for the Park

At the last meeting, Chris Yuen noted that the "tone of graciousness" was desired by the Task Force and that improved signage should state to the visitor that "You are Welcome Here" with rules, but without the "don't do this....don't do that" statements.

Martha Yent, the State Parks Interpretive Program Manager, was asked to review the existing signage, and in response, presented a sampling of new park entry sign and interpretive kiosk designs for consideration. In addition, interpretive kiosk themes and elements were discussed. A copy of Martha's handout is attached.

In addition to informing the public of prohibited activities, park signs and kiosks should provide park orientation and safety information, as well as cultural history and natural history and marine environment information.

Volunteer Program

Athline Clark addressed the volunteer program. Athline noted that there are opportunities for volunteers in everything that was discussed at this Task Force meeting. Athline stated that a person is needed to manage volunteer work and that getting volunteer activities underway hinges on the hiring of a Park Ambassador for this park. Athline noted that in all this, we need ideas and commitments on how we can make volunteer activities work. Athline suggested that it may be helpful if each program committee could prioritize the program needs and activities for volunteers.

Athline suggested to the group that they could write the names of potential volunteers on 3 by 5 cards and create a working database for a volunteer program. Several Task Force members indicated that they would like a better understanding of the project and program scope of work, and that they would then speak with Kona residents who may be able to assist.

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Committee members decided to rank priorities in the marine and cultural programs and facilities improvements and to determine types of volunteer needs as these priorities are fleshed out. Committee members were also asked to identify organizations that would work as volunteers for the top priority projects identified by the Marine and Cultural committees.

Fund Raising

Mike Wilson took up the discussion of fund raising and suggested that a Fund Raising Committee be formed. Marni Herkes, Roger Harris, Hannah Kihalani Springer, Charles Nahale, Clarence Medeiros, Lin MacIntosh, Kaipo De Guair, Fern Pule and Chris Yuen were asked to serve on the committee or volunteered to do so. Mike indicated that he will also participate in this committee's work.

Mike stated that we want Mahai'ula to improve, not stay the same, and that the Department is asking the Legislature for \$330,000, for developing an education center and interpretive program at Mahai'ula. Mike noted that the Governor and the Legislature will not act unless we show a commitment. Mike commented that we have made the Kona Coast State Park and Mahai'ula a high priority, but it takes the people who are involved to actually make it happen. Mike stated that we have taken the resource, involved the community, formed renovation, cultural and marine committees and we're ready to make it happen. We don't want to lose the momentum.

With this in mind, it was agreed that the amount of money to be raised would be \$100,000. It was noted that the fund raiser cannot be held in the park, in compliance with the Department's "First Amendment" rights Administrative Rule, Title 13-7-1. As such, the fund raiser would need to be held at a nearby Kona hotel.

As noted above under the Facility Improvements and Renovation Committee Report, Kaipo and Fern have already been thinking about a fund raiser and the planning for an event, such as a Hawaiian music concert, is underway. Building on this, the Fund Raising Committee suggested holding an event at the State Capitol in Honolulu, with displays, newspaper coverage, and even bringing people over from Hawaii to participate.

The option of holding a Legislative committee hearing in Kona at the Park, on the same day as the fund raising concert was also suggested. The hearing could be videotaped, and the Legislators could also attend the fund raiser as honored guests. The committee enthusiastically indicated that it had a plan, community support, a program, and that they were ready to make it happen. A fund raiser can clearly communicate the vision for

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the park and ask for community support and help.

Added Item: Park Management - Managing the Use of Kayaks

During the past month, the Division of State Parks has indicated that it will close Mahai'ula to all kayaking activities until the planning for the park is complete and all permitted activities have been identified. This action was considered necessary due to the increase in international visitor arrivals in West Hawaii and the anticipated increase in park use as well as potential conflicts between different park uses, such as swimming and kayaking. It was noted that the County of Hawaii does not allow boating activities at County Parks with swimming beaches. Commercial users also tend to compete with the public park user for parking space and for the beach area when launching kayaks. The Division has concluded that both actions impact the general public park user.

Athline Clark reviewed key questions and options for managing kayak use within the park. The question is "Should this activity be allowed at the park?" Options included: 1) banning all kayaking in the park; 2) allowing recreational kayaking only and banning all commercial kayaking; 3) allowing recreational kayak use and developing a concession agreement(s) with commercial kayak companies to allow guided kayak tours and 4) allowing recreational kayak use and the rental of kayaks, but no guided kayak tours.

Ms. Betsy Morrigan of Kayak Historical Discovery Tours and Mr. Mike Dennis of Ocean Safaris Paddling Club presented their views and concerns regarding the regulation of kayak activities at the park.

Ms. Morrigan suggested that the State designate a kayak landing area in the park and provide signage indicating "Swimmers Only" and "Boaters Land Here" to separate the two groups. Ms. Morrigan encouraged the State to plan for designated kayak landing spots in every State Park, starting with the Kona Coast State Park. Ms. Morrigan submitted the attached letter for consideration.

Mr. Dennis compared off site kayak rentals and off site kayak guide service. Mr. Dennis concluded that the service offered by an offsite guide service provides safety, protects the reef and environment. Mr. Dennis' comments are summarized in his notes, provided as an attachment to the group memory.

Chairperson Wilson suggested that the matter be taken up by a separate committee, formed to address kayak use and similar activities. He indicated that a committee meeting will be held in October to address this matter.

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Selecting a Date for the Next Meeting

The Task Force selected Tuesday, October 29, 1996 as the date for the next meeting. The meeting time was changed to 3:30 pm to 6:00 pm. The meeting was adjourned.

Kona Coast State Park
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September 26, 1996 Easel Notes

Easel Notes:

KONA COAST STATE PARK Task Force Implementation Meeting No. 1 September 26, 1996

NEXT STEPS:

- Renovate the Structure
- Establish Cultural Program
- Establish Marine Program

AGENDA

Group Reports:

Facility Improvements/Renovation

Cultural Program

Marine Program

New Signs for the Park

Volunteer Program

Fund Raising

**Added Item: Discussion of Park Management:
Activities that the Task Force wishes to see at the Park
(Issue: Managing the Use of Kayaks)**

**Selecting a Date for the
Next Meeting
Closing**

Kona Coast State Park
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Facility Improvements/ Renovation

- Available Funding
- Scope of Work/Renovation Process
- Sketch by Clarence Medeiros
- Visitor Center Building
- Fund Raising
- SMA Permit Requirements
- Report on Lead Paint

SMA Permit Requirements

- Demolition can be done without an SMA Permit, unless it is very close to the shoreline.
- Minimum setback of 40 feet from the shoreline; requires Certified Shoreline Survey
- Need to provide Hawaii County with a description of all of the work to be done along with building plans for their review.
- Maintenance: No SMA Permit required.

Lead-Based Paint Assessment

Lead-based paint is defined by the United States Environmental Protection Agency as paint having more than 0.5% lead by weight.

Fourteen samples taken from structures were tested. Paint from the structures shown in red contained more than 0.5% lead by weight. Paint from the structures shown in yellow contained less than 0.5% lead by weight.

Recommendation:

Structures with lead-based paint should be demolished, removed from the site and disposed of in accordance with EPA and OSHA requirements.

Structures with less than 5% lead by weight - although not lead free, fall below the EPA standard, and can be retained and abatement provided as a precaution. All work on these structures would comply with EPA and OSHA regulations.

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Abatement Options:

- Maintenance of the existing surface;
- Encapsulation of the surface with a compatible surfacing material;
- Enclosure of the surface with an airtight enclosure or covering material;
- Removal of the lead-containing paint;
- Demolition of the structure and disposal after TCLP testing* of the construction debris.

*Usually expensive, however, Hawaii County Public Works Department has indicated that it would simply like to have the material intact with prior notification of its delivery.

**Cultural Program:
Ideas Discussed Earlier**

- A Bibliography for the coastal *kekaha ahupua'a* ;
- Gathering and documentaiton of oral histories from *kekaha* families;
- Documentation of *mo'okuauhau* (geneological succession of the families associated with the *kekaha* region);
- Documentation of stories, traditions and legends of the coastal *kekaha ahupua'a*;
- Archaeological survey and complimentary archival review;
- Interpretation of the entire *ahupua'a* which comprise the Park;
- Preparation of interpretative brochures and signage, as well as educational materials - all of which should be *ahupua'a* based;
- Enhancement of Park landscaping by planting native species, and Polynesian introductions. Replacement of older plants, and selectively thinning and manicuring *Kiawe* to offer shelter;
- Development of a native plant, dry land botanical garden;
- Study and interpretation of the marine resources with reference to both their biological and cultural values;
- Management of the marine resources for its fisheries value directed towards

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keeping populations self-sustaining;

- Development of a museum within the park to serve as a repository and exhibition site for materials excavated from Kona archaeological sites and kekeha sites in particular;
- Recording and using specific place names and the *mo'olelo* associated with these names;
- Using the term "*kekaha* " in the Park name.

**Marine Program:
Ideas Discussed Earlier
plus a few new ideas**

- A Fisheries Management Area with access limited to non-motorized vessels and fishing only by line and pole or throw net or other traditional fishing techniques (no lay net);
- Coral monitoring stations within Mahai'ula Bay;
- Static displays depicting conspicuous marine biota, explaining their importance to the coral reef ecosystem;
- Mullet release program;
- Catch and release program, encouraging reporting of tagged fish to provide information on fish population;
- Guidelines for managing use of the Mahai'ula area for marine education (i.e., set up the marine education program), including limitations , but allowing for growth of the programs and facilities for marine education;
- Anchialine pool monitoring and recovery program with guidelines;
- Determine location of *aku koa* and *'opelo koa*; select and/or adjust day use mooring locations to avoid *aku koa* and *'opelo koa*;
- Survey and study present use of nearshore and Kona coast by fishermen;

**Kona Coast State Park
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- Install day use moorings at Makalawena and at Kua Bay to protect the reef at these sites, but hold off on the installation at Mahai'ula until there is a need for it;
- Conduct a survey of existing uses of Mahai'ula Bay; highest priority use should be historical, cultural and educational use;
- Management guidelines for educational groups (i.e., establish education program);
- Provide facilities for low impact marine education programs (wet tables, storage for educational materials);
- Establish Fisheries Management Area (FMA) at Kikaua Point and Kukio Bay (Uluweuweu Bay);
- Make community aware of and enforce FMA requirements once established;
- Marine life surveys and survey training, such as transects, photo quad samples and marine life identification;
- Marine Options Program (MOP) Maritime Archaeology Surveying Techniques (MAST);
- Division of Aquatic Resources Exhibits, Photographs, Display;
- Interpretive Display, such as:
 - Hawaiian fishing techniques including demonstrations and teaching;
 - Fishing koa, explanation, teaching:
 - What is a fishing koa ?
 - What was konohiki management like ?
- Oral history and Hawaiian legends associated with marine life and fishing;
- Polynesian Voyaging Society educational program;
- Study and Interpretation of Anchialine Ponds.

New Signs for the Park

- At the Entry: Park Name and "Welcome";

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- At the Parking Lot Area: Sign "kiosk" with several sign panels under a thatched halau setting:
 - a) Park Orientation (rules, opportunities, park map)
 - b) Cultural Values and History
 - c) Natural Resources

**Added Item: Kayaking Activities at
Kona Coast State Park**

Question: Is this an activity that should be allowed at the Park ?

Options:

- A. Ban all kayaking in the Park.
- B. Allow recreational kayaking only and ban all commercial kayaking.
- C. Allow recreational use and develop concession agreement(s) with _____ company(s) to allow ___ of kayaks on guided tours through the Park.
- D. Allow recreational use and allow rental kayaks only, no guided tours.

Question: Where is an appropriate place to launch kayaks, should we wish to allow this ?

Fund Raising

Options for Handling Donated Funds:

- Create a "Friends of the Kona Coast State Park" non-profit organization;
- The department may request that the legislature create a special fund for the purpose of accepting donations for a specific purpose or park.
- State Parks enabling statute Chapter 184-3 (2) HRS, allows the department to create a trust fund for the park, to which donated funds can be deposited. The funds can then be used by the Department for the designated park.

**Kona Coast State Park
Task Force Implementation Meeting No. 1
September 26, 1996 Easel Notes**

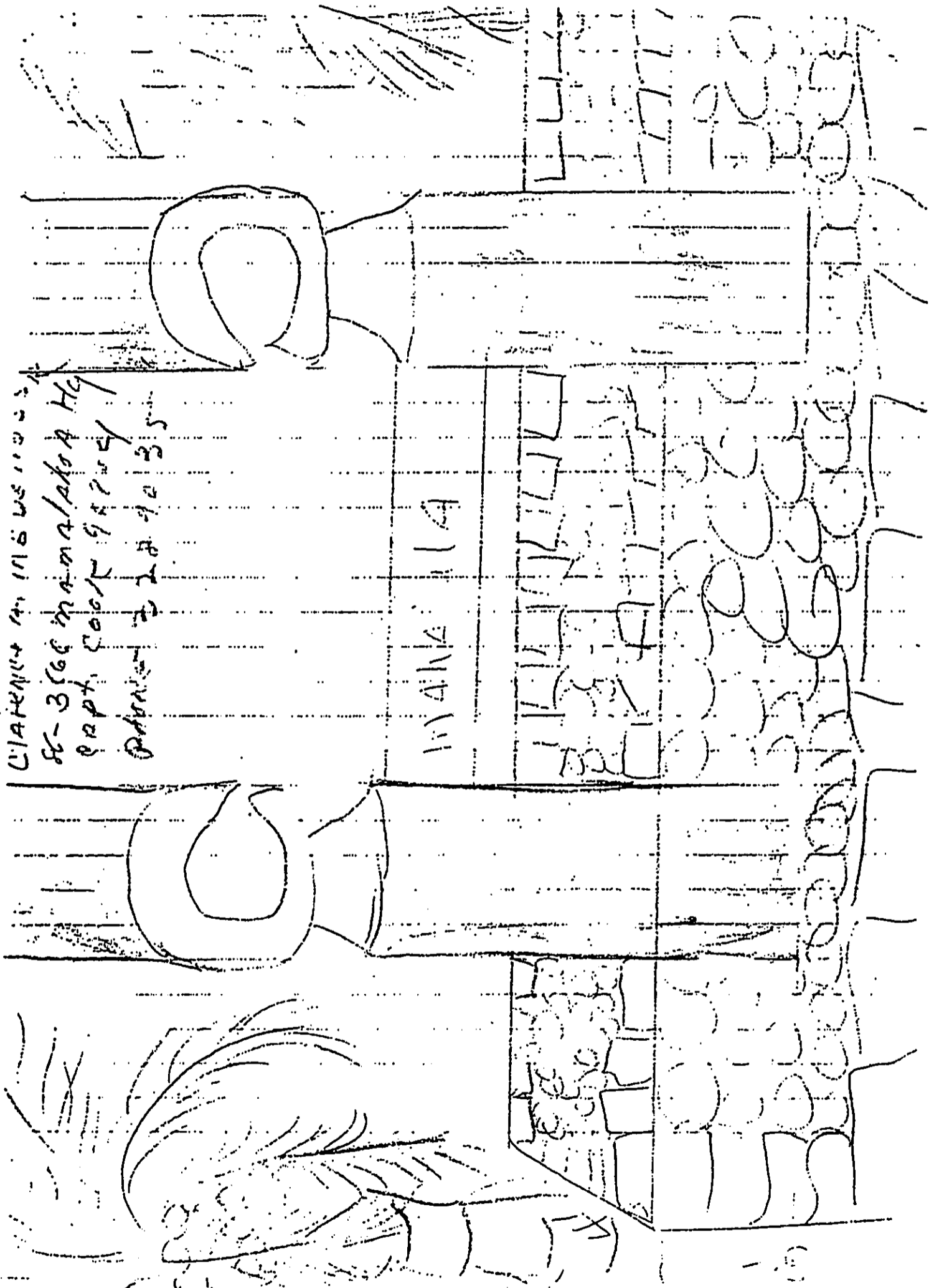
What is our Goal:

- **To raise community interest in the Park;**
- **To demonstrate to the Legislature that the community supports this Park, and wishes to see its facilities renovated and its marine and cultural programs developed and implemented;**
- **To provide seed money to initiate renovation projects and program development.**

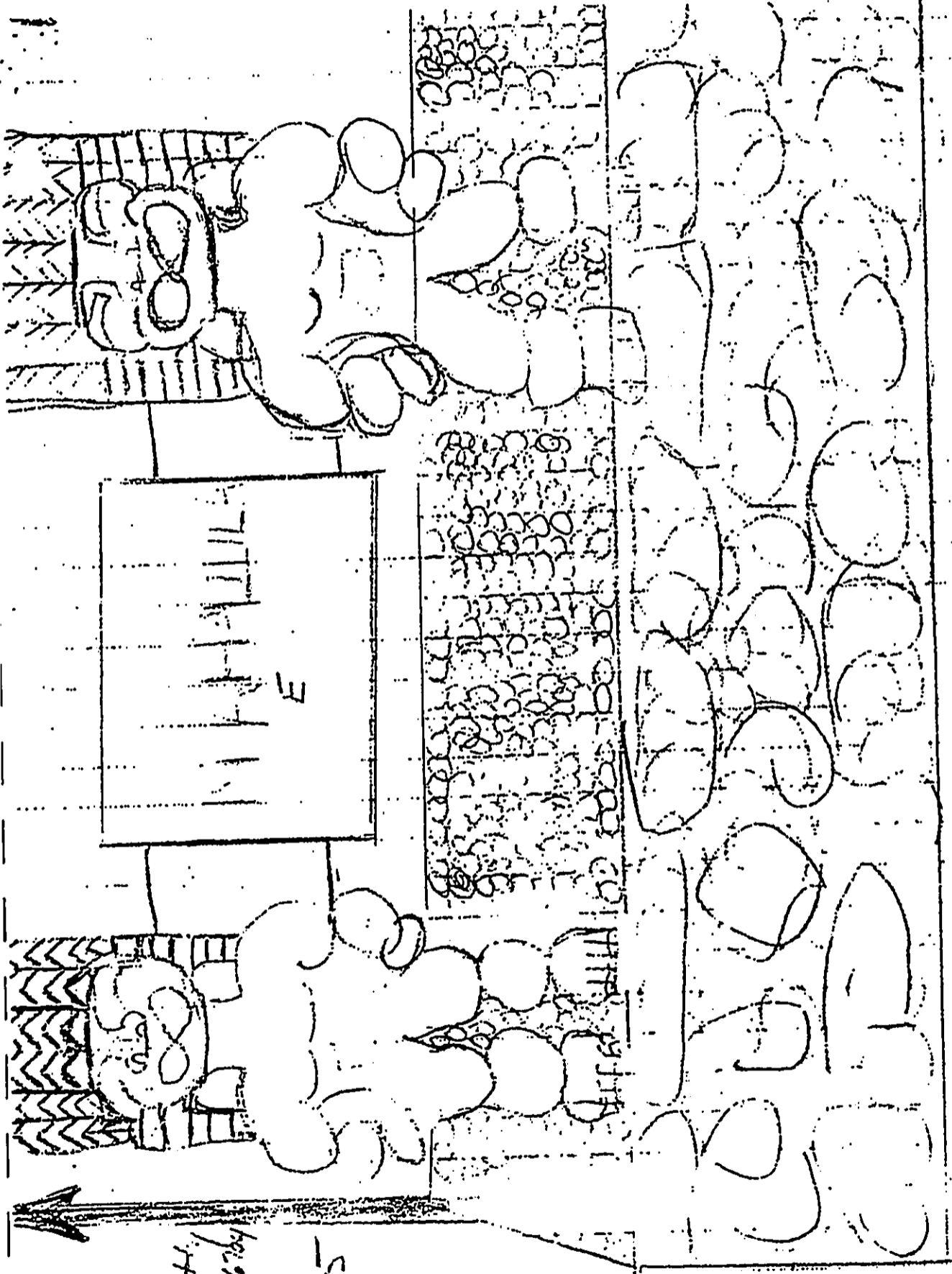
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CLARENCE M. MORGAN
86-3667 MAMMATAKA HQ
90pt. 500K 98204
Dated 22 10 35

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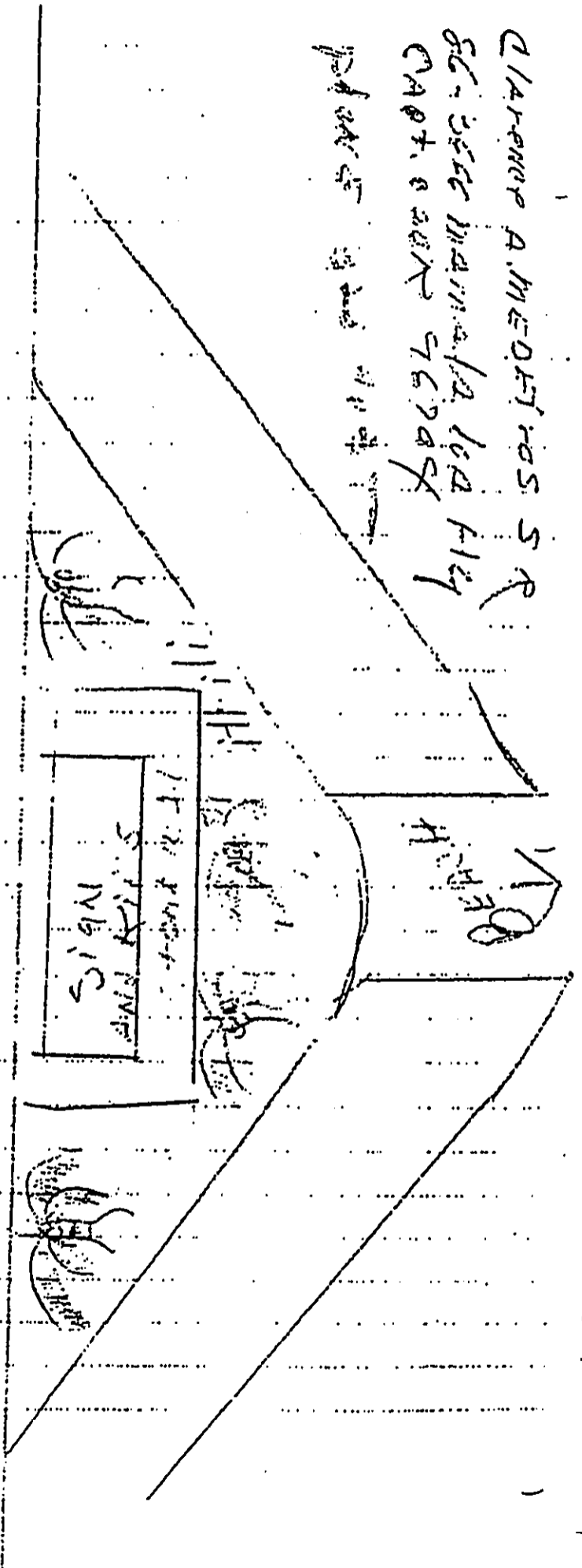


MEMORANDUM
R. 6-3666
AMALASHOHAN
APT. COOK 96764
PHONE
328 9035

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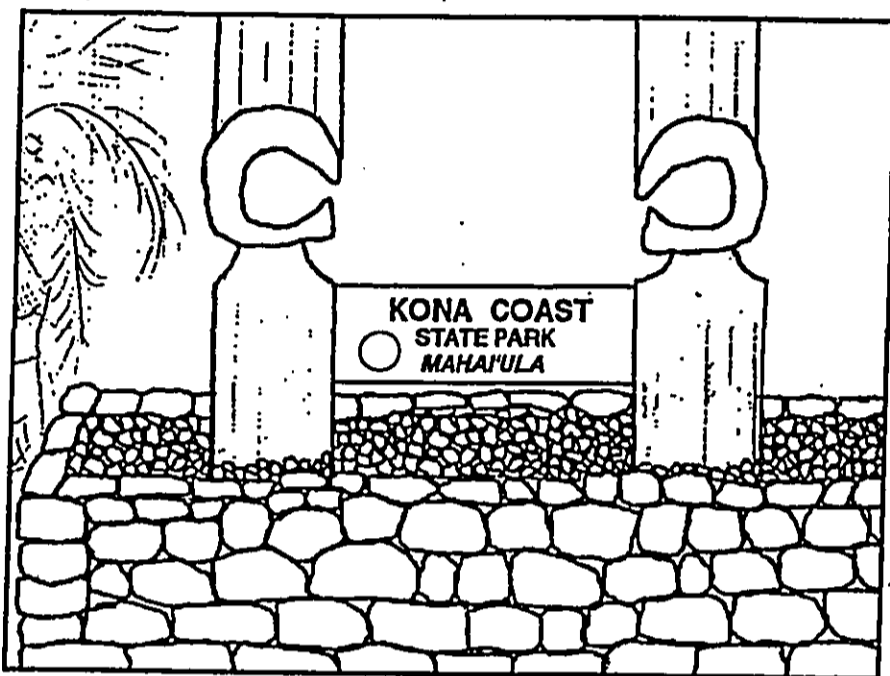
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SC-358C MAJ/MAJDA 102A F14
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Pilot's name and rank

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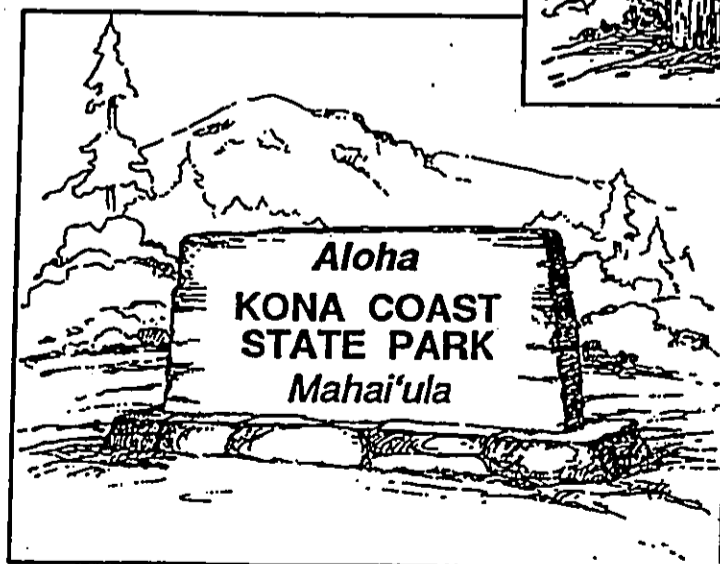
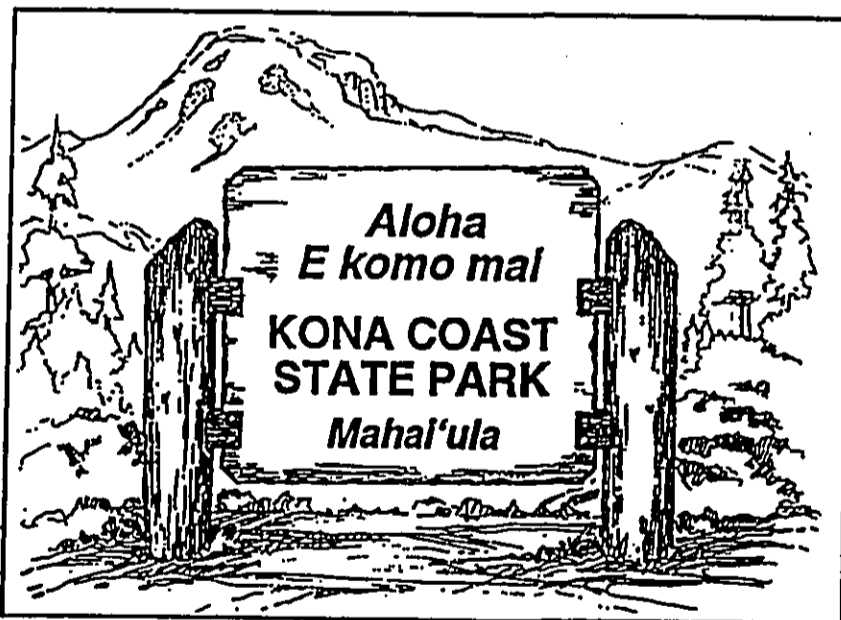


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PARK ENTRY SIGN DESIGNS



Design by Clarence Medeiros.



Basic sign designs that can be adapted to use Hawaiian stone and wood.

**Aloha and Welcome
to Kona Coast State Park.**

CAUTION:

***The 1.5 mile park road is
narrow and unpaved.***

**THE FOLLOWING ARE
PROHIBITED:**

- **Alcoholic Beverages**
- **Animals**
- **Camping**
- **Littering**
- **Open Fires**
- **Solicitation**

**Department of Land and Natural Resources
Division of State Parks**

**Standard sign needed near
park entry point.**

**Aloha and Welcome
to Kona Coast State Park.**

Park Open

9:00 AM to

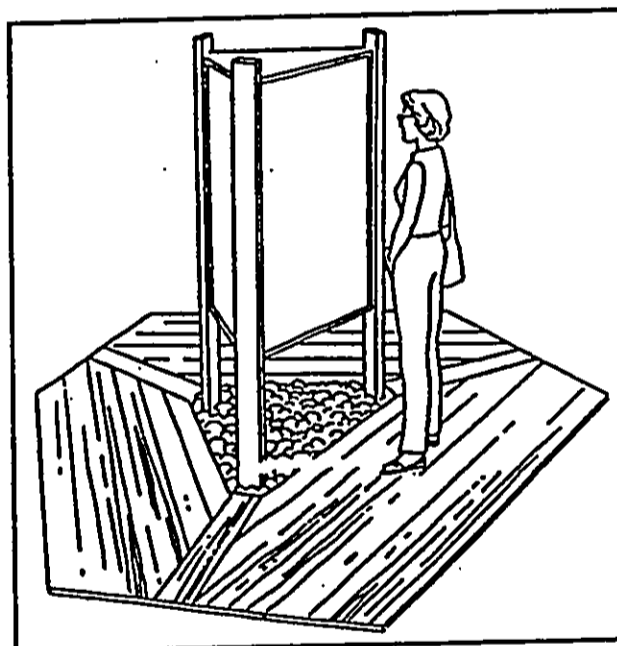
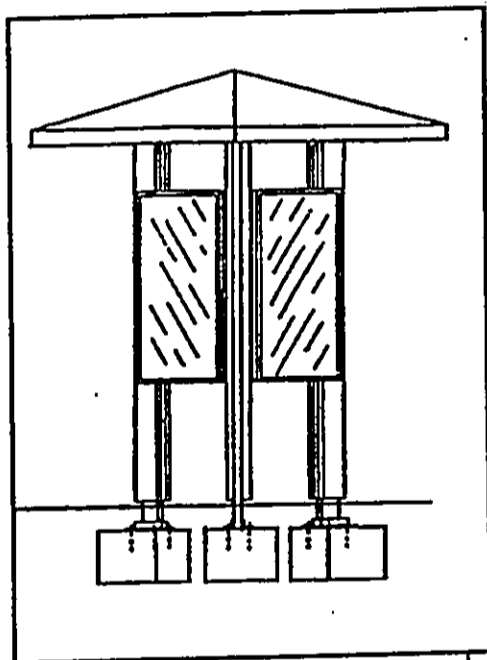
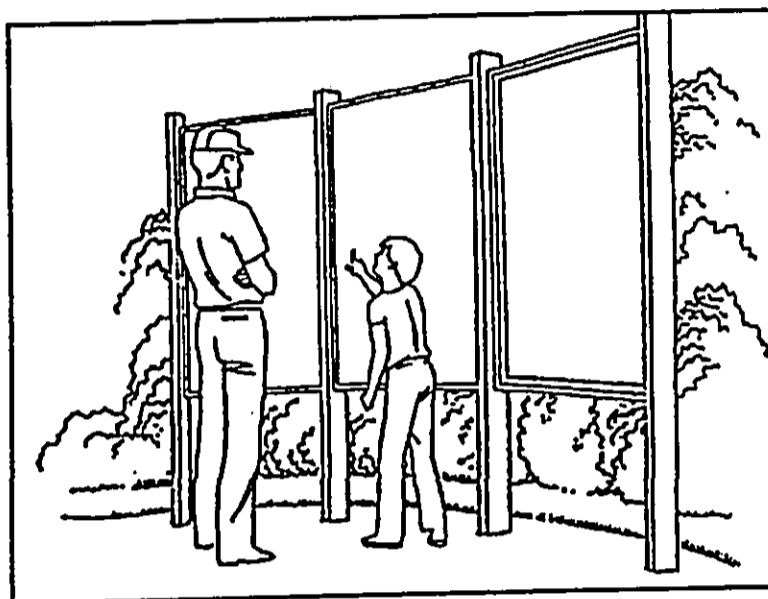
8:00 PM

**Daily, except
Wednesdays.**

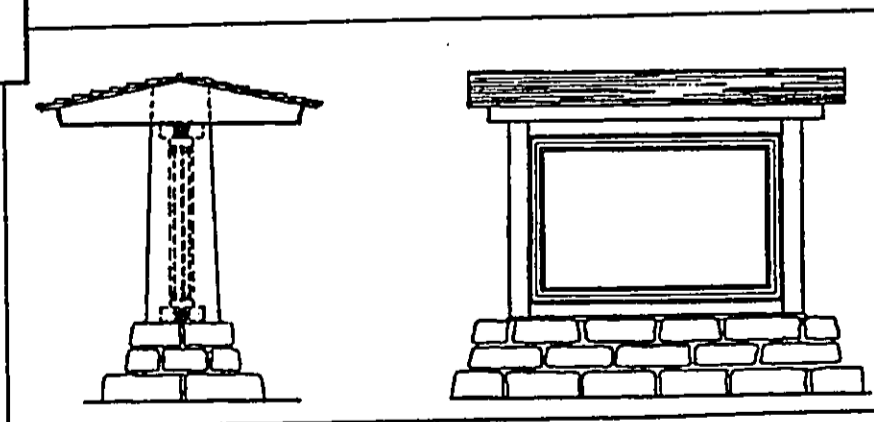


**Department of Land and Natural Resources
Division of State Parks**

INTERPRETIVE KIOSK DESIGNS



Various kiosk designs using vertical sign panels that measure 3 feet high and 2 feet wide.



**INTERPRETIVE KIOSK
KONA COAST STATE PARK**

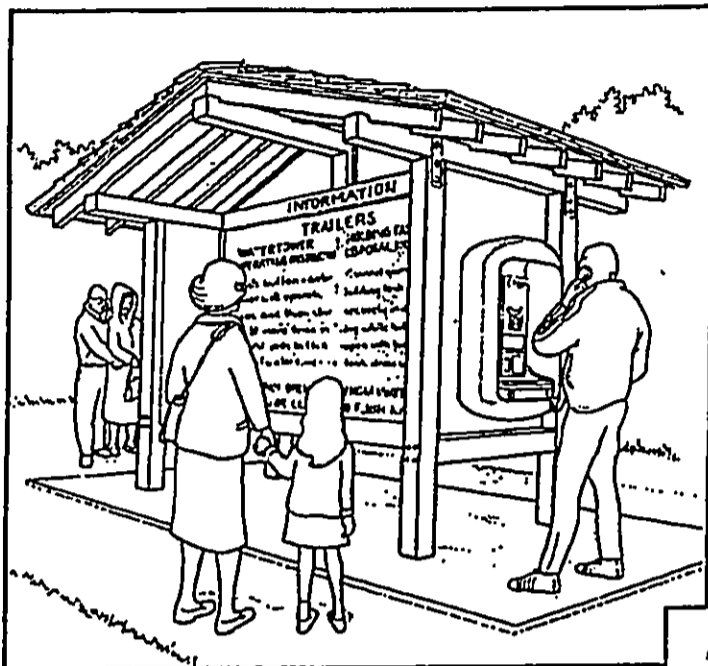
PROPOSED THEMES AND MAJOR ELEMENTS

PURPOSE: Provide an overview of park resources (natural and cultural), facilities, and recreational opportunities to heighten visitor awareness and understanding of these resources which in turn will result in behavior by park users that protects, preserves, conserves, and sustains the resources.

LOCATION: At the parking lot or a similar location where visitors will readily see the sign kiosk as they begin their park visit.

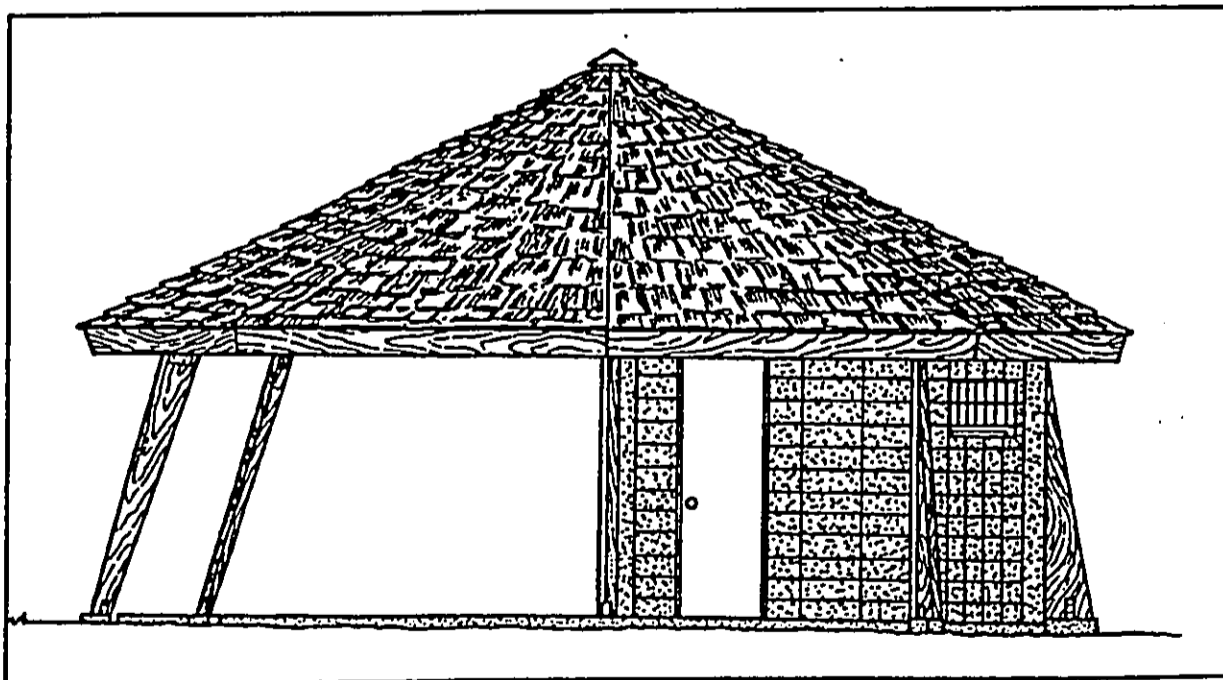
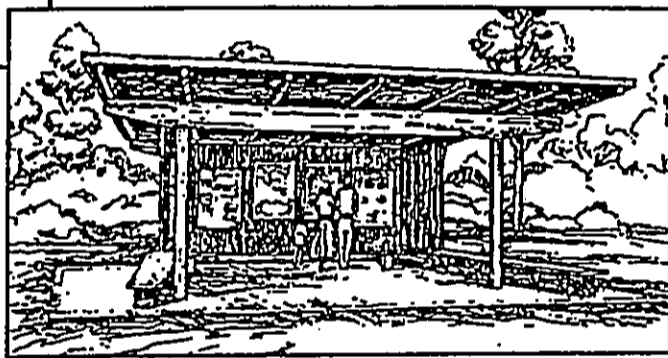
	SIGN #1	SIGN #2	SIGN #3
THEME	Park Orientation	Cultural History	Natural History
TEXT ELEMENTS	<ul style="list-style-type: none"> • Park rules • Safety warnings • Recreational opportunities, such as hiking (Ala Kahakai) and snorkeling areas • Park facilities, such as restrooms and education center locations 	<ul style="list-style-type: none"> • Cultural significance of Kekaha • Settlement-subsistence pattern (where and how people lived in this area - ahupua'a) • Archaeological sites (where visitation is encouraged) • Ala Kahakai • Protect/preserve message 	<ul style="list-style-type: none"> • Geological overview (age and source of lava flows) • Anchialine ponds (fragile resource) • Marine resources • Protect/conservé message
GRAPHIC ELEMENTS	<ul style="list-style-type: none"> • Park map 	<ul style="list-style-type: none"> • Historic maps and photos 	<ul style="list-style-type: none"> • Graphics of common/significant marine resources for snorkelers • Map showing various lava flows in the park vicinity
ADDITIONAL INFO.	<ul style="list-style-type: none"> • State Parks brochure (statewide park system) • Park AV show to be given by park ambassador 	<ul style="list-style-type: none"> • Brochure on the Ala Kahakai? • Brochure on the history of Kekaha area? • Guided tours/talks 	<ul style="list-style-type: none"> • Exhibits and hand-outs in the Education Center • Guided tours/talks

INTERPRETIVE SHELTER DESIGNS

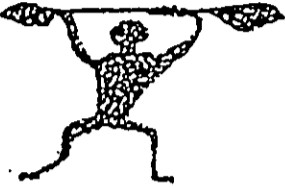


Signboard shelter with roof.

Expanded shelter for groups and interpretive talks.



Shelter with space for signs, group gatherings (interpretive talks), secured exhibits, and storage.



KAYAK HISTORICAL DISCOVERY TOURS
87-3187 Holomoku Road H
Captain Cook, HI 96704
808-328-8911



September 26, 1996

Kona Coast State Park Task Force
Dept. Land and Natural Resources
Kailua-Kona, Hawai'i

Dear Kona Coast State Park Task Force:

I thank you for taking the time to plan and design this beautiful new park here at Mahal'ula. It is truly a great addition to our state park system. This area provides accessible, attractive, varied forms of recreation both for the tourists and the residents of our state. I am writing to ask that you designate a kayak landing area in this park.

I have been enjoying swimming, hiking, snorkelling, kayaking and picnicing at this park ever since it opened. The park is quite spacious--especially where it curves around the bay towards the red house--and never have I witnessed any overcrowding or user conflicts, nor do I predict them in the future. As a dedicated user of this park in all of the above areas, I am convinced that we can maintain a multi-use park for all the activities that Kona's residents and tourists enjoy. One way to do this is by planning, then signage. Certain areas could be designated "swimmers only/no boating," or "boaters land here."

Sea kayaking on safe, stable, easy sit-on-top kayaks is an activity that has become very popular. It is an activity far safer, healthier, and less damaging to the environment than scuba, jetskiing, Zodiacs, or large tour boat cruising. People will continue to buy and rent kayaks, and also to take guided kayak tours. Let's plan for this popular and desirable new sport now in a way that maximizes access and options for all users of the park. I am in favor of allowing both private users and guided tour operators to quickly launch and land here in a designated location only.

Ecotourist dollars here will continue to make a difference in Hawai'i's economy if the state truly encourages this trend. Otherwise they will move their money to more compatible locations. I encourage the state of Hawai'i to plan for designated kayak landing spots at every state park, starting with the Kona Coast State Park.

As a responsible tour operator as well as an experienced private kayaker, I would like to work with your Task Force in maximizing user access at this park to all groups in any way I can. Please contact me and let's take a positive step forward in a pro-active, progressive way.

Sincerely,

Betsy Morrison

Betsy Morrison

ECO-ADVENTURES ON THE BIG ISLAND OF HAWAI'I



Comparison/Comment submitted by Mike Dennis, Ocean Safaris

OFF SITE RENTALS

VS.

OFF SITE GUIDE SERVICE

Rental Scenario:

1. Person calls a rental shop to reserve a kayak
2. Person picks up kayak at shop and places on his car.
3. Person with kayak drives to a beach of his choice and launches unsupervised at his own discretion.

Result: The person has exercised his legal right to rent a kayak. (at a offsite location)
Person parks unloads and launches and enters water at his own risk.
Person has no insurance to indemnify the State or County.
No safety precautions taken.
Possibility of injury to person, or others and damage to reefs etc.

Offsite Guide Service Scenario:

1. Same person calls a professional Guide Service. Arranges a lesson and tour.
2. Person meets guide in Kona. Person signs agreement acknowledging risk. Person may even join a Paddle Club and obtain a I.D. card. Person pays Guide service and is now entitled to use of a kayak (only under supervision of guide)
3. Person and Guide ride together to a safe launch site.
4. Prior to launch person is instructed and educated about; the area, water safety and respect for the environment.

Result: Person has exercised a legal right to hire a guide service to help ensure his safety.
Fewer cars are in the parking lot.(sharing ride)
Persons paddling are insured and State is indemnified.
Persons are educated.

Note: Same process is used to rent a kayak or to hire an offsite Guide Service. The essential differences are obvious. A guide ensures safety, protects the reefs and environment, guides and paddlers are insured. State is protected.
* All arrangements are prearranged, no business is conducted in a Park or at a beach. There is never an exchange of money or any other commerce at the Park.

**KONA COAST STATE PARK
TASK FORCE
IMPLEMENTATION MEETING NO. 2**

**Tuesday, October 29, 1996
3:30 to 6:00 p.m.
Old Magoon House at Mahai`ula**

AGENDA

- I. Welcome and Review of Agenda**
- II. Priority Recommendations by Committees:**
 - Marine Education Program
 - Facility Improvements/Renovation
- III. Committee Reports:**
 - Fund Raising
 - Kayaks in the Park
- IV. Park Name Selection**
- V. Proposed Date for Next Meeting:**
 - Thursday, November 21, 1996
- VI. Closing**

Department of Land and Natural Resources
Division of State Parks
**Kona Coast State Park Task Force
Implementation Meeting No. 2**

October 29, 1996, 3:30 p.m. - 6:00 p.m.
Mahai'ula - Old Magoon House

GROUP MEMORY - DRAFT

Welcome, Introductions, Review of Agenda

The meeting began with a welcome by Department of Land and Natural Resources (DLNR) Public Information Officer Aulani Wilhelm, who with the Volunteer Coordinator Athline Clark, facilitated the meeting. Aulani asked Joseph Lui if he would kindly offer a pule to begin the meeting. The following Task Force members were present:

Agnes Lui	Kaelemakule 'Ohana
Joseph Lui	Kaelemakule 'Ohana
Nicole Lui	Kaelemakule 'Ohana
Larry Mitchell	The Ocean Recreation Council of Hawaii
Marni Herkes	Kona-Kohala Chamber of Commerce
Roger Harris	Kona-Kohala Chamber of Commerce
Ruby McDonald	Office of Hawaiian Affairs
Bob Okawa	Na Ala Hele Advisory Council, Hawaii
Hannah Kihalani Springer	Cultural/Interpretive Prespective
Kaipō De Guair	Kaelemakule Ohana
Clarence A. Medeiros, Sr.	Kaelemakule Ohana
Lin MacIntosh	Kona-Kohala Chamber of Commerce
Frank Kamahele	Department of Transportation
Bob Okawa	DLNR/Na Ala Hele
Sara Peck	University of Hawaii Sea Grant
Francis Kuailani, Sr.	National Park Service
Pete Hendricks	DLNR/Division of Aquatic Resources
John Kahiapo	DLNR/Division of Aquatic Resources
Brent Carman	DLNR/Division of Aquatic Resources
Neal Hazama	DLNR/Division of Aquatic Resources
Bruce Kaya	DLNR/Division of Aquatic Resources
Barney Espinda	DLNR/DOBOR-H
Nel Jensen	DLNR/Division of State Parks
Morris Ota	DLNR/Division of Land Management- Engineering Branch
Reginald Lee	DLNR/Division of Conservation and Resources Enforcement
Chris Yuen	Board of Land and Natural Resources

Charles Supe
Mike Dennis
Betsy Morigan

DLNR /Division of State Parks
Ocean Safaris
Kayak Historical Discovery Tours

Staff

Aulani Wilhelm
Athline Clark
Daniel Quinn
Sherrie Samuels

DLNR/Public Information Officer
DLNR/Volunteer Coordinator
DLNR/State Parks Assistant Administrator
DLNR/State Parks Planning Branch

This was the second meeting in the process of bringing to fruition the ideas that the community wants to see implemented at Mahai'ula and throughout the park. The objective is to focus on the Mahai'ula Section of the park and move from planning to implementing. The agenda included reports from the Marine Committee, the Cultural Committee, the Renovation Committee, the Fundraising Committee and the Recreation Committee, formed to address the management of kayak use within the park. At the last meeting, the committees were asked develop priorities and next step actions. The choice of an appropriate name for the park, a primary focus of this meeting, was addressed by the Cultural Committee.

Marine Education Committee Report:

Pete Hendricks presented the Marine Committee report and indicated that the Division of Aquatic Resources abstained from the committee decision-making, so that the priorities listed represented the the rest of the committee's concerns. The top five priorities on the Marine Committee list were the following: 1) to plan a low impact marine education center by working with the rest of the group because this will depend on having a physical place to use, whether we fix up the Magoon house or have another place to meet and provide educational activities; 2) to continue the on-going coral monitoring and fish survey program; 3) to rehabilitate and interpret the anchialine pools; 4) to survey fishing and other recreational activities at Mahai'ula and throughout Kona Coast State Park; and 5) to establish a fisheries management area at Mahai'ula which would probably mean limiting some kinds of fishing gear.

Pete invited the group to attend a public hearing on the Kiholo Bay Fisheries Management Area, which is up the coast a way, but still related to what we are doing at Kona Coast State Park. The public hearing will be held on November 13 at Kealakehe Elementary School at 5:30 pm. The proposed regulations for Kiholo bay are no cross-netting, no gill netting in the entire bay. Kiholo has very important resources - juvenile fish habitat and also a tremendous amount of turtle activity.

Pete introduced John Kahiapo, head of the survey crew doing a nearshore survey at Mahai'ula, and Neal Hazama, also with the crew, interested in fish culture and nearshore resources. The Division of Aquatic Resources hopes this work will complement local knowledge. The Division staff are talking with kupuna and other folks. The kupuna and local knowledge will come first, and scientific knowledge will back up the long-term resource management.

John Kahiapo reported that the Mahai'ula Bay marine survey has been underway since November 1995. John described the survey process as follows: One hundred yard long transect lines were set out from the south and north end of the park. Identification plates, with the fish species noted on them, were used with scuba gear. Two divers go on each side of the line and count the fish they encounter by species. John noted that most of the fish are schooling fish, such as damsels, and blackfin chromis, and that forty-five species of fish were found. The Division recommended a more complete marine survey be done to include not only counting fish but also work on the substrate, the corals, inverts, wana, and limu. John noted that stations have been set up for coral monitoring at Kealakekua, and a permanent station will be set up at Mahai'ula. This will require installing reference pins so that the biologists can come back to the same spot over and over. John noted that Mahai'ula is going to be a control area, since there is hardly any commercial use or dive tours here, and will be compared with the Pine Trees area. In this way, we can see what kind of impact the dive tours have on coral cover.

Neal Hazama described the SEMFISH project - a stock enhancement project. This is a tag and release project, where tiny microtags are used on larval mullet from the Hilo area. Neal described the process for the group as follows. Initially, fish are taken over to Oahu and on Oahu they undergo the spawning, hatching, larval rearing stages. When they reach the size of about 1/2 inch, they are sent back to the Wailoa Fisheries Research Station. The fish are grown out to a size of about 3 to 4 inches, and tagged and released. About 140,000 tagged fish have been released in Hilo, but this is really small scale when compared to what the mainland fishery agencies do. After release, the Division biologists do cast net sampling of juveniles to see how the juvenile populations are affected. Creel survey work is also done to check the fishermen's catches for tagged fish. So far, in the Hilo nursery areas, since 1990, an average of about 32 % of the the fish caught with the cast nets are tagged fish. The creel survey information gives us an idea about how we are impacting the adult populations, and that's running at about 18 %. Neal stated that this is both good news and bad news. It tells you that you can have a big impact on the populations by doing this kind of tag and release work, but also since our tagged fish represent such a large proportion of the fish in general, the wild stocks are in trouble. Neal noted that this information is being applied at this very moment, in the Hilo area to come up with a fishery management plan that will help us to make the mullet population a self-sustaining one. They are using the information to a look size limits, bag limits, and nursery areas, and are working with the mullet fishermen to change some of the rules so mullet will have a chance to self-propogated to create a sustaining population.

Neal commented that stock enhancement in Kona is in its infancy. In 1993, the Division released stripped tagged mullet at Mahai'ula and at Old Kona Airport. At Mahai'ula, they released 9,866 stripped mullet, and the results were surprising. Neal noted that whether you get a lot of tagged stripped fish back, or whther you don't, you learn from this. In this particular case, they released the fish right here at Mahai'ula, and in a very short time, they found them down by Kona Village, Kukio Bay, Makalawena - anywhere, but within the release area. This indicates that the area right in front of this house is not a mullet

nursery area. Neal suggested that there are other areas that you and I know about along the Kona Coast that have a good chance of being good mullet nursery areas.

Neal explained that we also have the technology to tag and release moi. The Division has sampled moi-li and can identify nursery areas as well as areas that are good for the adults through the tagging information. They can also develop a fisheries management plan for the shoreline fisheries. At the Old Kona Airport tag and release, they got about 75 fish back and 14 back from the Mahai'ula release. Neal noted that although these were not stunning numbers, it does show that we have a lot to learn about the Kona area. Neal also told the group that the community can help too, by letting the biologists know where these fish are showing up and in what season. Then, the biologists can research the area and start experiments with tag and release.

The group asked if release programs are the primary means of improving the fishing grounds, or is there habitat enhancement as well. Neal indicated that they wish to start habitat enhancement, and habitat replacement and that this is but one part of stock enhancement. The other part is management rules - all of which to help sustain the resource. Neal stated that you don't want to keep adding fish, instead you want to get it to the point where they can sustain themselves.

In discussing whether Mahai'ula was ever a nursery, Hannah Springer indicated that being here with the family, a nursery area was identified under the coconut trees, for example. There may be other families with other reminiscences. Other members of the group noted their experiences, such as hearing the mullet scrub themselves on the sand or being able to catch mullet for breakfast, and however they also noted that they are not here now. This kind of information is important to the biologists.

Hannah also noted that Uncle David "Mauna" Roy in discussing the place names for this location, spoke of a particular name of a fishery at Kaelehuluhulu that extended from this area out towards Makalawaena. Hannah suggested that Kepa Maly, working with the Hawaiian language newspapers, may find similarly named fisheries or family members may have similar information.

Cultural Committee:

Hannah Springer indicated that the committee does not have a conclusive report yet on the choice of a name for the park, but have been discussing names by telephone. In general, Kekaha State Park has the highest level of agreement among those people in the group. Uncle Mauna Roy suggested Kaelehuluhulu State Park at Kekaha Kona Akau. Hannah noted that this suggestion set off a negative response among committee members, indicating that Kaelehuluhulu was too specific to this place. A similar concern is that Kekaha designates an area beyond the scope of the park. Hannah indicated that the committee has also talked about the interrelationship between natural elements -the forests and the springs, and wanted to integrate all of these elements, and suggested a third name - Kekaha Kai. Kekaha for the place that we have described in the past, and Kai - because it marks the shoreline area. This is a more specific name. Also, in the committee discussion, they talked about Kekaha Kaha Kai - denoting the coastal area, and

making the name even more specific, but then the committee thought that Kekaha Kai is a shorter word, easier for folks to pronounce and to make signs for.

Hannah noted that this park section might be called the Kaelehuluhulu Section of the Kekaha Kai State Park and suggested that we include the ahupua'a names wherever possible in all interpretation. In review Hannah noted that we are going from macro scale to micro scale. - Kekaha Kai being the park in Kekaha at the shoreline. As for the Kaelehuluhulu Section, we might take the cue as we look further to the north, to the fishery name of that off-shore area. Hannah noted that Kekaha State Park is something that we all agree on, Kekaha Kai seemed to be more focused, more narrow. Hannah indicated that she has not had a chance to speak to all committee members and asked the group if she could go back to the phone tree and get deeper examination fo Kekaha Kai State Park.

Members agreed and indicated that it was a good name, and that they wished to see ahupua'a signage. In further discussion, Hannah pointed to the boundaries of Kekaha, Kaelehuluhulu and the ahupua'a on a map. Kekaha was noted to extend beyond the map, to a point about 5 miles north of the park boundary. This raised questions.

Hannah noted that naming is not necessarily something that is done by committee nor is it a practice that people are necessarily comfortable to engage in. Uncle Mauna Roy looked at the use of Kaelehuluhulu and Kekaha as an opportunity to use traditional names in a contemporary manner and thus preserve them actively. Hannah suggested that we want to be as careful as we can in the choosing of the name, since this is a foundation that may affect other aspects of the park.

Members asked Hannah if she was comfortable with a name that encompasses an area that is substantially larger than the physical limits of the park. Hannah indicated that Kekaha is more specific than Kona. Members asked if private landowners, such as the resorts, might be nervous, when we suddenly say Kekaha, and someone knows that the northern boundary is substantially beyond the park area. Another member indicated that that Kekaha State Park and Kehaka Kai are lovely names, and that it is important to preserve the specific place names in signage in the park, so that these names are not lost. It was also noted that we have Kekaha Wai up the coast, and Kekaha Wailea in between, and that these encourage the linkages and circulation between ahupua'a.

Renovation Committee:

Charlie Supe reported that the committee defined priorities as follows: demolish the Kaelemakule Home, demolish and remove the structures behind the two story building, and remove the concrete slab on the sandy beach. Charlie noted, however, that recent discussions with staff engineers and architects indicated that it may be possible to save the Kaelemakule home. The Committee also suggested that the Task Force can still move ahead to remove rubbish and the lead paint coated water tanks, and fill in the large hole behind the two story house. Charlie explained that termite treatment of the two story building and renovation will require money not yet available.

Charlie indicated that if the Kaelemakule home must be removed, the Kaelemakule Family would like to first remove some items and keep them as family memorabilia. The Family feels that because this building has been entrusted to them and they have so much attachment to it, they should be granted this request. They also ask that the building shell be taken down by hand, so that the rocks at the base of the building will not be disturbed or damaged. Charlie noted that because there is a possibility of saving the building, the demolition might not happen. However, if the building is going to be taken down by hand, the work would be done on a Wednesday when the park is closed and volunteers would be needed. The State would provide trucks to dispose of the wood. The Kaelemakule family also asked that if the building is removed, a monument be erected indicating that this was the location of the Kaelemakule Family home. Joseph Lui would determine the information to be placed on the monument.

The Renovation Committee also discussed the sign to be located at the main park entrance. At our last meeting, Clarence Medeiros talked about carving ki'i and a large sign for the entrance. Charlie will work on getting the 9 feet long by 2 feet diameter logs needed for the ki'i, and trucking the logs down to Clarence's house. Clarence can do the carving. As far as the sign itself, Charlie noted that since we are going through the process of naming park and the apana, the carving of the sign will probably be held in abeyance.

Dan Quinn then reported on the recent State Parks staff meeting with the Land Division engineers and State Historic Preservation Division architects, who are not convinced that the Kaelemakule House can't be saved. The Historic Preservation Division staff indicated that they have worked on lead paint mitigation on old plantation homes on the Ewa Plain on Oahu. There, it cost them about \$7,000 per building to mitigate the lead paint by sealing it in. Dan noted that there are other methods where the lead paint is pulled off, but if you pull the paint off the Kaelemakule Home, much of the wood will come off at the same time. It was noted that the older portion of the Kaelemakule Home is so weak that you can poke your finger through the wood. The Department engineers and architects will evaluate the condition of both the Kaelemakule Home and the 2-story Magoon house in mid-November.

Dan also noted that staff engineers are not structural engineers, however they feel confident enough to evaluate the condition of the buildings. Since these buildings were added to periodically and essentially just roughly put together, a structural engineer will have to determine how much work will need to be done. Staff engineers felt that first thing to do in the renovation is to peel the roof off, start from the top down and replace whatever is needed to be replaced and shore up as per design, however, they will probably have to wait for the State funding to accomplish the design and renovation.

One other caution was indicated. Dan pointed out that because these structures are so close to the ocean, once removed, it may be difficult to get permits to put them back up again in the same location because of the SMA restrictions. Dan noted that if we had started without any structures, we wouldn't build anything this close to the ocean. With this in mind, we want to be absolutely sure that the Kaelemakule Home cannot be fixed

before removing it. If the home is to remain, we'll have to figure out how to make it safe or keep people out of it while preparing for renovation. In the interim, we need to clean up the area, remove the out buildings, and water tanks, that are painted with high lead content paint.

The group then discussed planning for the community workday. Cleanup work will include the grounds surrounding the Magoon House, filling in the open holes in the ground, and painting the Magoon House. Larry Mitchell indicated that he could donate some paint and could do the job in one day. A date was selected, Wednesday, November 20, beginning at 6:30 am, with a Task Force meeting to follow lunch.

State Parks staff was assigned the task of determining the clean up projects to be undertaken, number of people and the kind of equipment required for each clean up task. The Task Force members agreed to bring themselves and try to get five friends to come also. They also agreed to bring pot luck lunch and plenty of water, coolers, and their trucks. Department staff will also send out information to the group in what to wear and bring. Aulani indicated that she will get information on the event to as many of the local papers as possible.

One member asked if anyone had discussed putting a minimal amount of money into the two-story building, and then constructing a whole new educational facility on a different site ?

Staff member Sherrie Samuels explained that when the Task Force worked through the conceptual plan, the consultant gave us a high, medium, and low intensity for each ahupua'a. The Task Force, as a whole, felt that they wanted a low intensity use throughout the park, and opted for using the two-story Magoon house as it stands right now. The general concensus was to utilize what we have at this point. Sherrie also explained that at the park entrance at the highway, the Task Force proposes to build a new visitor center with a wide variety of facilities — exhibit areas, theater for teaching Kona Coast cultural and natural history, as well as changing archaeological exhibits. This new facility would fill the need for a larger demand, and also serve to meter the flow of people into the park.

Fundraising Committee:

Lin Macintosh reported that the fundraising committee has been given the task of raising approximately \$100,000 from the community. The committee decided to have a two-pronged approach: 1) community or corporate sponsorship, where we ask for outright donations, and 2) a community concert the first week in January 1997, to raise funds and demonstrate community support to the Legislature. Lin noted that this is an awesome undertaking, but there seems to be a lot of enthusiasm, as well as volunteers for some of the committees. Lin did determine that the Old Airport pavilion is available the first weekend in January, and noted that the reason that the Old Airport was selected was to accomodate the number of cars involved. Lin suggested that we go to the Farm Bureau and ask them to show us how they parked all those cars on the tarmac for the Farm Fair held about a month ago. The Fundraising Committee will be looking for as much

community support as possible and their next meeting is scheduled for November 6th in the conference room at the County Building. If others wish to participate in the fundraising, they will be more than welcome, because it is going to be a substantial undertaking.

Lin also noted that before we can even ask anybody for money, we need to decide not only what we are going to call the park, but also where we are going to put the money that is donated. A Kona Outdoor Circle trust account was suggested since the Friends of the Park do not yet have a non-profit 501-3c status.

This option would involve setting up a trust fund with donation checks made out to "Friends of the Park", and would be faster than setting up a 501-3-c set up for the Friends of the Park. It was noted that it is possible to donate money to the state for a specified purpose, and get a tax deduction, however getting the money back out is not as easy. Athline Clark mentioned that the Malama Kai Foundation was set up for marine-related activities and education, and that the Foundation has separate accounts set up for different activities that it is involved in.

The group then discussed which organization would be more appropriate, and which organization the public would feel more comfortable with in making out a check. Some members thought that they would be more comfortable with the Kona Outdoor Circle since they have raised a lot of money and have name recognition. It was noted that the organization could simply serve as a repository for the funds, however others suggested that the organization could take on part of the fundraising as a project for that organization, essentially buying into it.

The discussion also included the question of how the group wants to be recognized, in other words, is the title "Friends of the Park", acceptable, or would the group like to be known as Friends of Kekaha Kai State Park, or something different, or perhaps even a Hawaiian term or name. It was concluded that it was best to keep it simple, "Friends of Kekaha Kai State Park, then on November 20, the group can clearly indicate their sponsorship of clean up effort.

One member suggested some caution since Kekaha Kai is not known yet, and thought it might be better to use a term such as "Friends of Mahai'ula. The group considered this and concluded that the name should be "Friends of Mahai'ula at Kekaha Kai State Park".

There was concern on selecting a name at this meeting, since Hannah Springer is still working with the Cultural Committee on the name. Other members thought that there would be no conflict if we called the group, the "Friends of Mahai'ula". It was suggested that the name and the fundraising are two separate things and that this might be a fundraiser for Mahai'ula. It was also noted that the Fundraising Committee can not really wait until November 20 to develop flyers and tickets for the event. Finally, it was suggested that we inform Hannah, who had to leave the meeting earlier, that the group discussed the name and the upcoming event, and give Hannah our recommendation as the "Friends of Mahai'ula at Kekaha Kai State Park. It was noted that eventually the

group could even drop the word "Mahai'ula, when the new park name becomes better known. The group agree to present this to Hannah.

Recreation Committee: Kayaks

Athline provided background information and a summary of the kayak meeting held the week before. She indicated that the issue of banning kayaks within State Parks, as it is currently being talked about, is more than just the Mahai'ula area or even Kekaha Kai State Park, because they are also talking about Hapuna, and Old Kona Airport. Athline reviewed existing rules: starting from the north at Hapuna Beach State Recreation Area, where the bay fronting the park has been designated as a "no vessel zone" under DBOR rules for many years. The next access point, at the beach at Kua Bay, is currently a banned kayak area and has been designated as a "no motorized vessel zone" since 1988. Here at Mahai'ula, the recommendation from the Task Force group originally was that the inside of this bay be also designated as a no motorized vessel zone, but there is no designation currently. The Task Force also recommended that it be designated as an FMA, but no discussion beyond that has been made. Old Kona Airport is currently designated as a Marine Life Conservation District, but there are no boating regulations in that area, except, that commercial dive operators are required to obtain a permit to use the moorings that are out there.

Athline informed the group that at the meeting on kayaks, each area was discussed individually, so that everybody understood the access issues and the regulations both on the land and on the water side. Athline indicated that in some cases, what the land side was doing was to bring the park regulations into compliance with the boating regulations that have been on the books for a long time. In other places, that is not the case. The group talked only about recreational activity, and did not address commercial activity. The group discussed and agreed to open Old Kona Airport State Recreational Area for recreational use, and at Mahai'ula, the majority opinion was that they would like to see some access for recreational use. There was a minority opinion expressed to continue the kayaks ban, but both groups agreed that a management plan should be developed. Athline further explained that within the Kayak committee, one group wanted the area open to kayaks until the management plan is developed, while the other group wanted kayaks banned until the management plan is developed. The Kayak Committee is in the process of determining the location of kayak launch areas for some of those sites, and will have another meeting next week to further discuss these issues.

Regarding non-motorized vessels, one Task Force member did not understand the rule, because kayaks are non-motorized. Athline explained that all vessels are banned at Hapuna and at Kua Bay, right down to paipo boards and surfboards. These beaches are reserved for swimming and diving. At Mahai'ula, the suggestion was to limit activity to non-motorized vessels because this is a swimming bay and its also a really shallow area.

Members then expressed concern about the process involved in addressing the kayak issue, and asked if it was appropriate for the Friends of the Park to have a sub-committee on kayaks? The suggestion was made to create a separate task force to address this issue.

Members discussed what they felt had been the Task Forces' focus in preparing the conceptual plan for the park and the development plan for the Mahai'ula Section of the park. Considerable discussion occurred regarding whether or not the Task Force had addressed the issue of activities or if they had focused on facilities, leaving activity management for later. It was concluded that the group was now getting into the management issues. Athline reminded the group that at present, kayaking is banned from this park, and that this is what has brought it to an issue.

One member suggested banning all activities until a management plan is in place. Another member suggested lifting the ban on kayaking now since it is not a problem, and everybody will try not to make it a problem. Betsey Morrigan passed out guidelines for recreational kayaking and commercial kayaking developed by the Hawaii Island Paddlers Alliance. She suggested that surfers should develop their own guidelines too.

One member suggested that the only problem is that kayaks have been banned in the State Parks area, whereas the other activities have not been banned, so kayakers have felt that kayaking has been singled out as a problem, where no problem existed. Some members suggested that although they share the kayakers' concern, the Park Task Force or Friends meeting is not the place to discuss it. Others disagreed, indicating that Mahai'ula is the site where the kayaks were banned.

Athline brought the group back to the central discussion indicating that the kayak sub-committee has been formed and is addressing the kayak issue, unfortunately, they are looking currently only at kayaking, but that still does not address the larger issue of management plans for all activities within this park. The kayaking issue is currently a burning issue because it has been the only activity that has been banned from the park. If this group advocates that the decision be made elsewhere, the group will have to live with that decision. Also, in terms of process, there are members of this group that are on the kayaking committee. Athline indicated that she would like to hear the opinion of the Task Force regarding banning activities and asked the group if their sentiment is to leave the ban in place until the management plan is in place, or is the sentiment that these activities could continue until a management plan is developed?

Members indicated that they have always wanted a management plan, and that they did not wait for the kayaks to be banned. A management plan was very important to them. They started on that management plan with the visitor center, and all bought into that management plan. A member suggested that activity management needs to be looked at in a broader spectrum - not just one issue, but rather all of the activities at this park.

Board of Land and Natural Resources member Chris Yuen then stated that he understood the concern regarding banning kayaks at Mahai'ula, however, he noted that this group has functioned very well and expressed concern about the group getting into a lot of huki-huki over specific points of contention. He indicated that people should feel free to express thoughts about the kayaking, hiking, 4 wheel drive useage. He noted also that the kayak committee did take a pole on the issue, but he felt that this group did not need to get to a point where we are voting on the issue. Chris indicated that what the

group has done all along is express concerns, address situations that it felt needed to be worked out. He noted that we still have consultants working on a master plan, we have meetings where we can discuss things that come up like banning motorized craft. Chris suggested that we should discuss these concerns, but don't try to come to a position within this particular group, where we might wind up dividing the group by arguing over this particular issue. Chris expressed his hope that this gets worked out. He stated that those who are here who were at the kayak meeting, know his position on the banning activities that people enjoy doing but are not causing any immediate harm. Chris suggested that if people want to say something more about it, then let it go for now, and see what happens at the next meeting of the kayak committee.

Members asked if they could obtain a copy of the regulations or a summary of regulations that apply to vessels. Athline indicated that she could provide this information.

It was noted that the conceptual plan mentions neither kayaking nor surfing. Whereupon Chris Yuen commented that he did not think the fact that certain things are not mentioned in the plan was meant to say that you should not be able to do these things. Chris indicated that he appreciated what was said, but that he felt that the people interested in kayaking are willing to work with State Parks on how to manage kayaking. He indicated that he thought that people got upset by being shut down. Chris commented that while State Parks may have some legitimate concerns about the use of the park by kayaks, we could work on those concerns. He also thought that no one actually thinks the park is endangered of being overrun and destroyed by kayaks. He again expressed the hope that the group could work on these issues in a more cooperative level of discussion.

The discussion continued, with a park caretaker expressing concern about the confusion caused by vehicles carrying all these kayaks, while another member commented that he carries his kayak on his car and it is for recreational use only. Another member suggested that a compromise could be worked out, indicating that all of us have to look at the needs of everyone, and that we can't satisfy one special group's needs. The member noted that the area is not a big area, and that we have to look at the impact on all park users. He suggested that the kayakers, swimmers, surfers, - all users, have to learn to govern themselves so that no one infringes on the rights of another as they use the area for recreation.

Chris Yuen reminded the group of something that Hannah said early on, that when you come to Mahai'ula, this place should have a tone of hospitality and graciousness. Chris expressed his hope that this could happen. He noted that he sits on the Board, that he is a government regulator, that we already have many regulations, and that he is not very satisfied with the effect or the results of having a thousand regulations. He noted that some regulations have become so complicated that people can't possibly understand them. He also stated that he is coming here to enjoy himself and that we need to think about what we are doing so that it doesn't bother other people.

Finally, members suggested that we start working on a management plan, perhaps by

setting out a timeline to begin work on the different activities and how they interact, as well as a way to preserve the hospitality in the park.

Sherrie Samuels indicated that she will discuss this with the consultants and determine how this relates to their development plan that they are preparing in accordance with what the Task Force has directed. She indicated that she will discuss to what extent and where a management plan fits in with the work underway. Members reminded staff that they did not want crisis management here, but rather to have a management plan in place. Members asked if it is possible to fast track the management plan for the park. Members also asked if it would be possible to alleviate the current crisis while we work on getting the management plan in place. Another member asked that users not aggravate the situation and have respect for the Task force's effort. Charlie Supe noted that already conditions are being worked out to cover the basic points that State Parks is concerned about.

Aulani concluded the discussion by summarizing: The Friends of Mahai'ula at Kekaha Kai State Park, are moving towards dealing with overall activity management and are going to make a long-term commitment to dealing with activities, regulations and decisions about activities in this park, as well as the role the group will play in that commitment. One member requested clarification on State Parks position on pulling the ban on kayaking at Mahai'ula, if the kayak committee would agree that it could be reopened. There was concurrence that this seemed to be the position that was alluded to.

Aulani summarized the workday effort asking that we meet at Mahai'ula on November 20th with lots of energy, lots of food, and lots of water, and work on cleaning up this place. Regarding the next Task force meeting, it was decided that the meeting would be held on November 20 after the pot-luck lunch. Aulani suggested that we limit the meeting to one issue, fund raising, and also write down our evaluation of the workday. She also suggested that we think about how we can continue to have community support. Members asked if the group would consider adding or scheduling another workday at that point, if we need it. Staff responded positively, indicating that we may get a whole lot of interest from people who could not come and still want to help. The meeting was adjourned.

FOLLOW-UP NOTE ON THE KAYAK ISSUE:

Two kayak launch sites were designated, one at Old Kona Airport State Recreation Area and the other at Kaelehuluhulu within the Mahai'ula Section of the the Kona Coast State Park. Signs were posted indicating the launch site locations and new guidelines for recreation use were introduced and agreed to at the Kayak Committee meetings. A copy of the guidelines is attached.

HAWAII ISLAND
PADDLERS ALLIANCE



TEN POINT GUIDELINES FOR SMALL-SCALE, LICENSED COMMERCIAL
PADDLING OUTFITTERS

Operating Guidelines

1. Carry insurance which names the state as an additional insured party. Stay current on and obey all Federal, State and County laws pertaining to the use of kayaks, including Marine Mammal Act.
2. Hire only guides who have strong paddling skills, and are certified in First Aid/CPR. Hire local guides from area when possible. Certify guides through Hawaii State Tour Driver/Guides Certification program.
3. Educate customers about the environmental and historical significance of their destination. Give each paddler a copy of guidelines. Teach guests not to stand on or touch coral. Guests are not to use the bushes as a bathroom. Tour operators to provide portable toilet facilities. Promote a high level of environmental and cultural awareness amongst our guests.
4. Limit number of guests and boats per trip. Unless weather conditions prevent you from doing so, launch and land only in areas designated for kayak use. When landing in rocky areas, pick up and carry boat as much as possible to prevent leaving residue.
5. Keep in touch with the mood of the people inhabiting any areas we may operate. Be ready and willing to address the concerns of local residents. Respond to any complaints in a diplomatic fashion.
6. Always act responsibly and respectfully and in a manner which reflects favorably on the kayaking industry especially in areas of extreme cultural significance to the Hawaiian people and when dealing with the local public.
7. Operate safely, always check local weather conditions. Cancel trip in questionable conditions. Give right-of-way to swimmers/ surfers, etc.
8. Coordinate shoreline cleanups and volunteer boats and manpower to facilitate this. Introduce the public to kayaking through free fun days or benefits. Volunteer boats and people for community events when feasible.
9. Work cooperatively with DLNR Paddling Review Board, by forming, joining, and supporting DLNR Paddling Advisory Board to advise on recreational and commercial kayaking and non-racing outrigger canoeing.
10. Always put safety, environment, and the education of people in these areas before profit motives.

Take only your memories, leave nothing but footprints...

..... - - - - -
PADDLERS ALLIANCE



Guidelines for Personal Kayak Use

1. Follow all State and County laws pertaining to kayak use, including Federal Marine Mammal Act.
2. Always behave in a manner which is respectful of the environment and its inhabitants. Know where you are and what you're doing. Make an effort to learn about the area where you're paddling. Do not go near or desecrate graves. Treat all Hawaiian cultural sites with respect. Take nothing. Leave no litter.
3. Land and launch your kayak only in areas designated for this activity wherever possible. When landing on rocky area, pick up your boat to minimize plastic residue.
4. Paddle safely. Always carry a lifejacket and emergency/First Aid supplies. Paddle only within your skill level. Cancel trip in questionable surf or weather. Never enter into a situation which could jeopardize your safety or the safety of others.
5. Respect and protect the environment. Know and learn about where you are. Do not touch or step on coral. Do not feed the fish. Do not harass the dolphins.
6. Render aid to any swimmers, surfers, boogie boarders, snorkelers and any small craft upon request. Consult with the National Weather Service and Coast Guard before taking any long distance or extended trips. Before going on a trip in unfamiliar waters, consult with a local resident or paddler who is familiar with the area.
7. Use extreme care with human waste. at all times. Use facilities where provided, otherwise bury far from water, private property or historic sites. Leave no TP.
8. Join and support organizations that promote environmentally and culturally sound paddling. Find a way to give back something to the community in which you're paddling.



Hawai'i Department of Land and Natural Resources Guidelines for Recreational Kayak Use

1. Follow all Federal, State and County laws pertaining to kayak use. Learn and practice safe boating. Understand and follow the Marine Mammal Protection Act and Endangered Species Act; don't harass the dolphins, turtles, whales, etc.
2. Land and launch your kayak only in areas designated for this activity by DLNR, where ever possible. When landing on rocky areas, pick up your boat to minimize plastic residue.
3. Understand that kayaks are not to be left at a park site overnight. At launch areas, kayaks are to be stored at sites designated as storage areas or on an individuals vehicle, not on the beach.
4. Access and operate at State Parks during the park's operating hours:

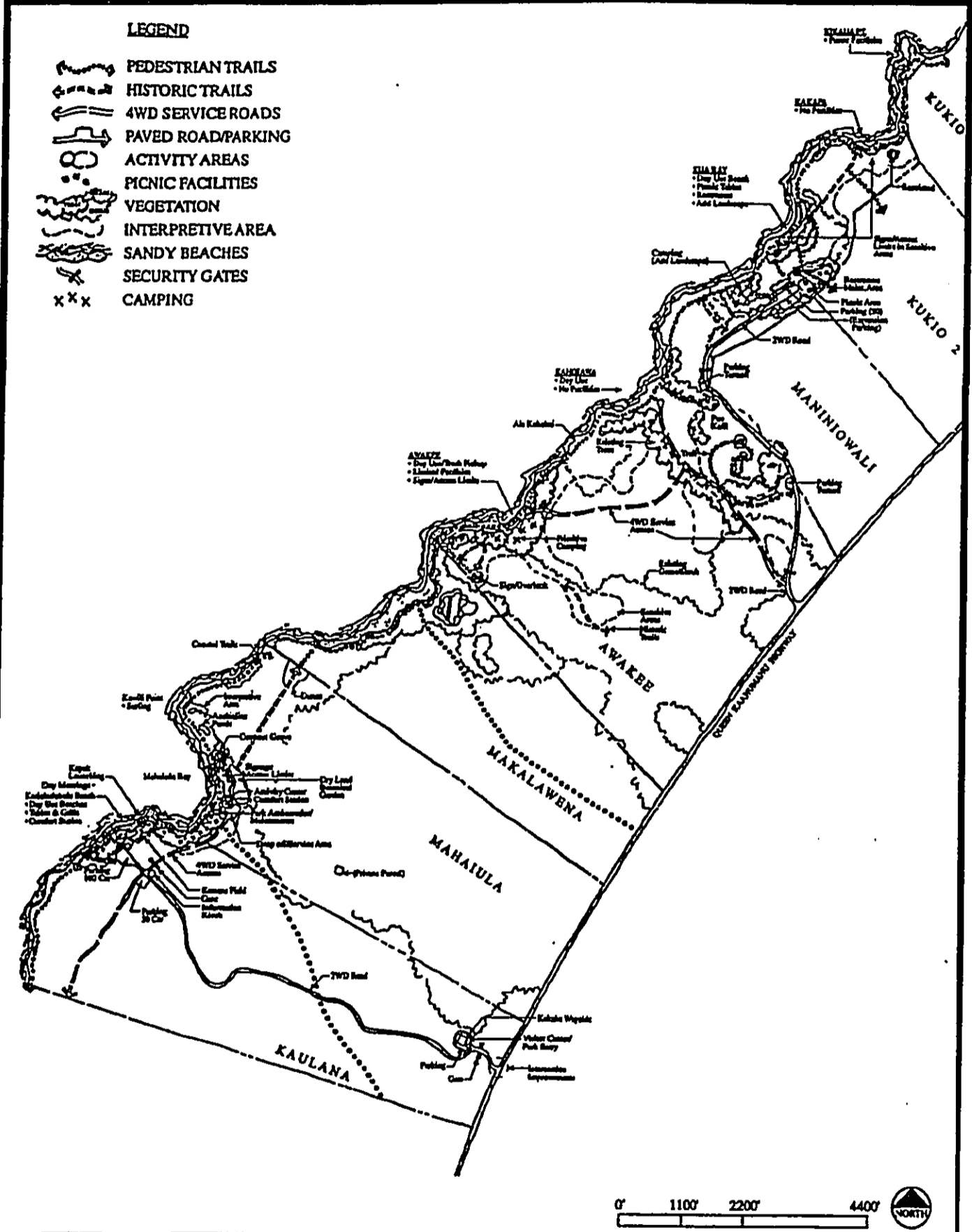
Kona Coast State Park (Ka'elehuluhulu Point) 9:00am. - 8:00pm. Closed Wed.
Old Kona Airport (Pawai Bay) 7:00am. - 8:00pm
5. Paddle Safely. Always carry a lifejacket, emergency/first aid supplies, and water. Paddle within your skill level and know how to swim, or wear your life jacket. Cancel a trip in questionable surf or weather. Never enter into a situation which could jeopardize your safety or the safety of others. Render aid to any swimmer, surfer, boogie boarders, snorkeler, or small craft upon request. Give swimmers the right of way.
6. Respect and protect the environment. Do not touch, or step on, or take coral, or feed the fish. Haul out litter when you see it.
7. Always behave in a manner which is respectful of the environment and its inhabitants. Know where you are and what you are doing. Make an effort to learn about the area where you're paddling. Treat all Hawaiian cultural sites with respect, do not desecrate them. Take nothing and leave nothing behind.
8. Before going on a trip in unfamiliar waters, consult with a local expert who is familiar with the area. On long distance or extended trips, file a float plan with a friend and consult the National Weather Service for weather and marine forecasts.

For more information regarding regulations call:

- DLNR State Parks 974-6200
- DLNR Boating and Ocean Recreation 329-4997
- Hawaii County Parks and Recreation 961-8311








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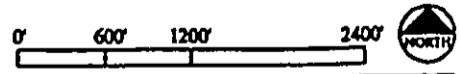
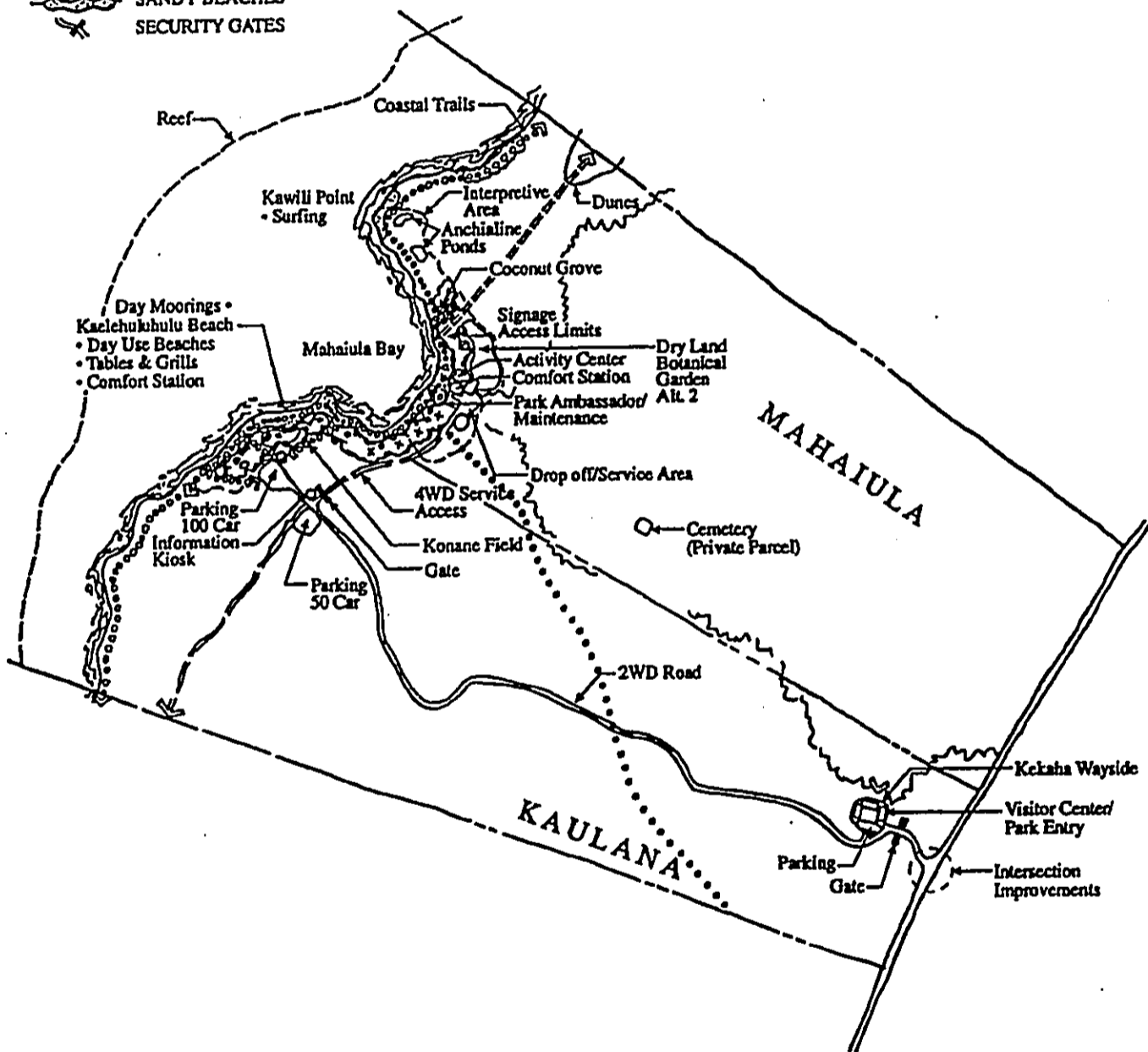


Kona Coast State Park

Conceptual Master Plan

LEGEND

-  PEDESTRIAN TRAILS
-  HISTORIC TRAILS
-  4WD SERVICE ROADS
-  PAVED ROAD/PARKING
-  ACTIVITY AREAS
-  PICNIC FACILITIES
-  VEGETATION
-  INTERPRETIVE AREA
-  SANDY BEACHES
-  SECURITY GATES



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Kona Coast State Park

Task Force Implementation Meeting No. 2

Tuesday October 29, 1996, 3:30-6:00 p.m.

Mahai'ula, at the Old Magoon House

Name	Organization	Address	Telephone	fax
Francis Kuailani S	NATIONAL PARK SERVICE	73-9786 Kaulaemali St KK	329-6881	329-2597
Frank Yamaloka	DOT	Kaahala Airport	329-7499	329-7414
MERCS OTA	PLNR	P.O. Box 256 KKAH	326-4925	
DAN SANN	STATE PARKS	PO BOX 621 HAN	587-0289	587-0211
CHARLES K. SUPE	STATE PARKS	75 AUGUM ST HAO	974-6200	
REGINA LEE	DOCAPE	P.O. Box 310 Capt. Cook	326-2017	
Mami Neilsen	Kona Kohala Chamber	Kaunaloa, HI 75-5737 Kaunaloa Hwy #107	329-1758	329-8504
AUI MS JORDAN	Kona Kohala Chamber	9009006 K.K.	329-2977	329-5506
Sara Peck	UH SEES	P.O. Box 489, Kaunaloa	329-2861	329-8998
Larry Mitchell	PO Box 591	TORCH	329-8603	
Betsy Morigan	Hawaii Island Paddlers Alliance	87-3167 Hona Hahaione	328-8711	
Mike Dennis	Hawaii Island Paddlers Alliance	P.O. Box 515 Kailua Kona	326-4699	Same
Alann Lue	Kaunaloa Chamber	76-6217 Kaha K.K. 9746	329-2978	Same
Joseph Raymond Lue			11	K

RECEIVED AS FOLLOWS

Kona Coast State Park

Task Force Implementation Meeting No. 2

Tuesday October 29, 1996, 3:30-6:00 p.m.

Mahai'ula, at the Old Magoon House

Name	Organization	Address	Telephone	fax
✓ Meole Dui	Kahelemaele 'Chana	76-6217 Lehua Rd. K.C. 96742	329-2378	
✓ Chris Green	BLNR	101 Aupuni #108 Hilo	935-4429	935-1844
✓ Athlete Club	DNR			
✓ Pate Hendricks	DLNR/DAR			
✓ Bob Okawa	Naiakale	POB 2276 Kaulakaha 96718	322-7011	324-0028
✓ AEL JENSEN	DLNR	75-347 HOENE ST	329-5792	
✓ JOHN LAHIAPO	DLNR/DAR	15-aupuni st. Hilo	974-6201	
✓ Drent Carman	DAR	game ↑	974-6202	935-8998
✓ Neal Hazama	DLNR/DAR	75 Aupuni St. Hilo	935-8998 974-6201	935-8998
✓ BRUCE KAYA	DNR/DAR	75 AUPUNI ST. HILo	974-6201	
✓ Barney Espinola Jr	DLNR/DAR		329-4797	
✓ Sherbie Samuels	DLNR/State Parks		587-0296	587-0311

**WELCOME TO THE
KEKAHA KAI (KONA COAST) STATE PARK
COMMUNITY WORKDAY**

November 20, 1996, 6:30 am to Noon

Community Workday Groups and Tasks

(Clean Up Day Manager - Alan Takeya, Park Maintenance Supervisor)

Please drive to the Magoon House area, and park behind the house.

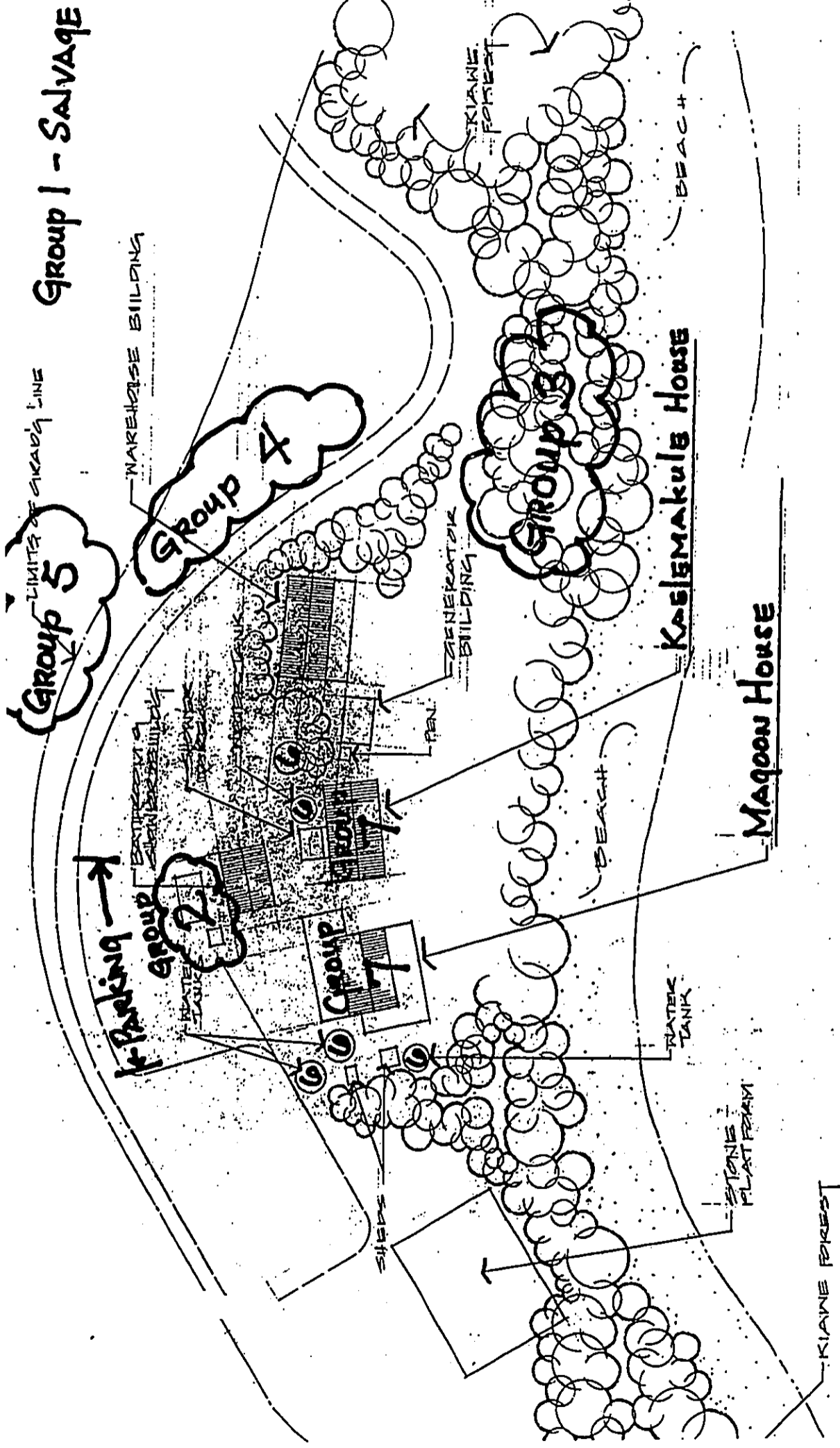
Go to the Magoon House lanai, sign the "Liability Waiver for Voluntary Services" form and give it to the Department staff.

Select a work group and sign in. If you have a truck that will be used to haul debris to the dump, please sign in on the truck list and provide your truck license number. The number will be given to the Dump staff, so all dump charges be paid by State Parks.

Please help yourself to the breakfast muffins and refreshments, then report to your work site.

If you need work gloves, take a pair from the lanai table, and return them when you have finished working.

NOTE: The First Aid Station is located on the Magoon House lanai. Cold water and canned soda will also be available on the lanai. The Pot Luck lunch will also be served on the lanai.



NOVEMBER 20, 1996
 COMMUNITY WORK DAY

MAHOLI, KONA, HAWAII

OCEAN

GROUPS AND TASKS

GROUP 1 - REMOVE ALL ITEMS MARKED FOR SALVAGE. All items to be salvaged will be marked with a piece of yellow flagging tape. Group 1 should look for these items and move all marked items to the Warehouse area and place the items inside the warehouse or along the mauka side of the warehouse. Most items can be moved by hand; if an item is large or heavy, we'll have the backhoe move it.

Equipment: Gloves

Manpower: 10

GROUP 2 - FILL THE OUTHOUSE HOLE. This is a safety task. The hole at the end of the concrete path located between the two houses must be filled with gravel. This can be done with the backhoe using cinder from the surrounding area or Group 2 can take a truck, and shovels and go up the main access road to one of the gravel piles. Group 2 will need to fill the truck with enough gravel to fill in the hole, bring the gravel to the site and dump it. The finished surface in any case should be cinder, so that it matches the surrounding ground area.

SEEPAGE PIT COVER. Group 2 can also to lift the concrete seepage pit cover and replace it in the opening to the pit to make it safe until State Parks can get a backhoe with a ram to demolish the concrete surface and drop it into the pit. When we are able to do this, we can then fill the area with gravel and top it off with cinder. For now, we just need to make it safe by replacing the concrete cover.

Equipment: Backhoe, Truck, Shovels, Gloves

Manpower: 5-8

GROUP 3 - DEBRIS LOCATED UNDER TREES IN FRONT OF WAREHOUSE. Assignment is to remove the debris located under the trees in front of the warehouse. Place the debris in a truck, and haul it to the dump.

Equipment: Truck, Gloves

Manpower: 5-8

GROUP 4 - DRY CUT WOODY VEGETATION: LOAD ON TRUCK AND DRIVE TO DUMP. Group 4 will need to place all the dry woody cut vegetation located along the road behind the warehouse into trucks and haul this debris to the dump.

Equipment: Large trucks, Gloves

Manpower: 10-20

GROUP 5 - REMOVE HEAVY RUBBISH FROM THE RUBBISH PIT LOCATED BEHIND THE PARKING AREA. Group 5 will need to form a "bucket brigade" and hand the rubbish and debris from one person to the next to get it out of the pit and into the truck. We will take out all large objects, but stop when we get down to the broken glass. We'll leave the glass for now.

Equipment: Large trucks, Gloves

Manpower: 20-30

GROUP 6 - WATER TANK DEMOLITION. Group 6 will need to work on taking the water tanks apart. We would like to save the water tank bands, since these could be used to reconstruct a typical water tank in the future for interpretive purposes and use. (The bands will be flagged with yellow flagging tape.) The water tank lumber should be loaded into one truck and hauled to the dump separately. At the dump, inform the staff that the wood is painted with lead-based paint. They will tell us where to put it.

Equipment: Large trucks, gloves, tow straps, ropes, claw hammers, nail pullers, box or coffee can (to put nails in),
Manpower: 5-10

GROUP 7 - GRAFFITI REMOVAL. Group 7 will be asked to clean the inside of the Magoon House and to remove graffiti from the walls both on the ground floor and on the second floor. Group 7 will also remove debris from the Kaelemakule house and clean up the inside of the house.

Equipment: Six 5 gallon plastic pails, rags, soap to remove graffiti, gloves, pliers to remove broken glass from window frames, brooms, heavy duty dust pans, case of grabage bags. Boxes (to put broken glass in).
Manpower: 10-20

Community Workday No. 1 November 20, 1997

7.39 Tons, and what do you get ?

Another day older (as the song goes), but also, great satisfaction in seeing Mahai'ula at the Kona Coast State Park cleaned of rubbish and debris. On Wednesday, November 20, 1996, 45 community members and DLNR staff removed a grand total of 14,780 pounds (7.39 tons) of rubbish and debris from Mahai'ula, at the Kona Coast State Park. The rubbish was hauled to the Kona landfill in 14 truck loads over a five hour period. The hauling was accomplished with five privately-owned small trucks, one medium State pick-up truck and one large State dump truck.

Kona Coast State Park, a major coastal State Park of 1,642.548 acres, begins just north of Keahole Airport and extends along 5.3 miles of coastline from Mahai'ula north to Kikaua Point. During the past two years, the community, at public meetings and through its Task Force, has developed a Conceptual Plan and a Phase I Development Plan for the park.

In July 1996, the Task Force finished its planning work and decided to move forward with implementing the Phase I Development Plan for Mahai'ula calling for the establishment of a marine and cultural education center where the previous owner's, the Magoon family, house is located. The Task Force also decided that it was time to change its name since its mission was also changing. The Task Force's new name is "The Friends of Mahai'ula". The Friends are undertaking a number of tasks ranging from fundraising, cultural and marine educational programs, renovation of the existing structures to house the programs, to addressing the management of particular recreational uses, such as kayaking.

To get renovation off to a flying start, the Friends choose to have a community work day as their first public effort. On November 20, a Wednesday, a day when the park is normally closed, community members were on site a 6:30 am, ready, willing and able to get to work cleaning up the Magoon house area.

The work groups first salvaged old screen and window frames and various items useful for interpretation, and then moved on to the clean up tasks both inside and outside of the two story Magoon house, a single story house, where the Kaelemakule family once lived and behind the warehouse.

Rubbish included everything from old appliances such as gas refrigerators, hot water tanks, pipe, boat trailers, landing mats and 8 old tires (recycled in Hilo). The area surrounding the houses was raked and debris bagged. Broken glass was picked up by hand throughout the site while others worked on breaking down old watertanks and clearing each tank area of debris.

The Friends were most fortunate to have 9 students and their advisor from the Explorations Academy, a branch of Konawaena High School. The students raked, swept, bagged, pulled glass shards from window frames, loaded trucks, and even worked on repairing low lava rock walls. These students proved that they can do it all !

In addition, the State Department of Transportation Airports Division at Keahole Airport provided a backhoe driver and backhoe and truck driver and very large dump truck and trailer for the day. The backhoe operator moved material to fill a deep, open old lua hole, removed old watertank foundations, and transported road gravel donated by the Four Seasons Hotel to the area behind the Magoon and Kaelemakule houses. The operator then graded and smoothed the cinder and gravel to improve the parking area - a fine job, that will make it much easier for volunteers to drive into the area and park their vehicles in the future.

As the last truck headed for the dump, the group sat down to eat their well-deserved pot luck lunch. After lunch, work continued on the parking area. By mid-afternoon, the area looked 100% better and it was clear that the community could now take pride in Mahai'ula.

Although much was accomplished in five hours, two areas were not cleaned up - the dry woody debris and the rubbish pit hidden in the lava on the mauka side of the parking area. Therefore, a second park clean-up day is planned for early 1997.

Community Workday No. 2 January 4, 1997

We did it again...and this time, “We’re seeing red !”

Red on the outside of the Magoon House, that is, and white on the inside ! Larry Mitchell of Custom Painting Hawaii donated time and materials and community members “Painted the Hale” on Saturday, January 4, 1997. All this effort is intended to make the Magoon House useable for marine and educational programs planned for 1997. But wait, there’s more...

Community members and the State Park staff continued cleaning up the grounds surrounding the Magoon House. At the first community clean-up day on November 20, 1996, 7.39 tons of rubbish and debris was loaded into state and private trucks and hauled away. On January 4, another 3.24 tons (6480 pounds) of rubbish from the pit behind the house and from under the nearby kiawe grove was removed ! Mahai’ula is now really looking good !

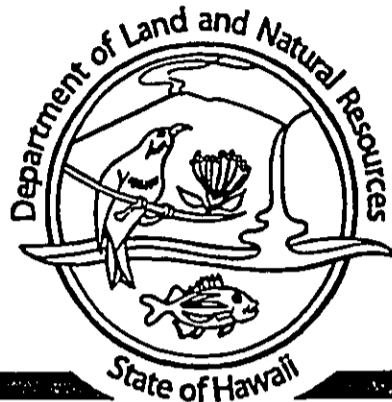
But wait, there’s even more good news to report. The Department of Land and Natural Resources has hired a State Park Ambassador, Casey Cho, to develop marine and cultural educational and interpretive programs for the Park and to provide the essential presence in the park, to guide the park user and ensure the preservation of park resources.

By noon on Saturday, the painting was done, and the last truck returned from the dump. Assistant Park Administrator Dan Quinn tuned up his bagpipes, serenaded the group with traditional Scottish Bagpipe songs, calling in the workers to lunch. Betsey Morrigan’s vegetarian chili, 4 different kinds of poki, salads, breads, sushi, rice....what a feast ! What a day: hard, but satisfying work, a brand new coat of paint for the old building, great bagpipe music, a tasty lunch and the company of good friends who make their park plans a reality.

Public Information Office
Kalanimoku Building, Room 130
1151 Punchbowl Street
Honolulu, Hawai'i 96813

MEDIA ADVISORY

Contact: Aulani Wilhelm, O'ahu, 587-0330 or 361-0650 (pager)
Clifford Inn, O'ahu, 587-0320
April 8, 1997
97-42



DLNR AND FRIENDS OF MAHA'I'ULA WELCOME NEW "PARK AMBASSADOR" AT KONA COAST STATE PARK

Tomorrow, April 9, 1997, the Friends of Mahai'ula at Kekaha Kai (Kona Coast) State Park in partnership with the DLNR will formally welcome and introduce Mr. Casey Cho as the new "Park Ambassador" for Kona Coast State Park. The formal introduction will be made at their community planning meeting at Mahai'ula Bay from 3:30 p.m. - 6:00 p.m. The hiring of a Park Ambassador for the area is part of DLNR's overall community planning effort to develop the four-mile long park.

DLNR's Park Ambassador Program was developed two years ago, placing full-time individuals at some of the most important and popular wilderness parks and natural areas to educate and work with the community to protect the area. The Ambassador Program is one of several community-based management initiatives DLNR has undertaken in its efforts to achieve sustainability of Hawai'i's natural resources.

In addition to Mr. Cho, there are two other full-time ambassadors, one at the Na Pali Coast Wilderness Park on Kaua'i, and the other at Ka'ena Point Natural Area Reserve on O'ahu. All three work with volunteers, teach visitors about the unique resources of the area, show people how to "tread lightly" on the native flora and fauna to ensure their continued survival, and work with community organizations to increase support for community-sponsored initiatives to take care of the area.

Before coming on board as Park Ambassador, Mr. Cho worked for six years at Hawai'i Volcanoes National Park (HAVO) as a Biological Technician and Wildlife Assistant. His responsibilities at HAVO included monitoring Hawksbill turtle hatchings, feral ungulate control, vegetation management, fire suppression, and assisting with the Nene captive breeding and monitoring program.

(NOTE: Although the park is closed on Wednesdays, DLNR staff will open the front gate beginning at 3:00 p.m. to allow entry for interested community members and media.)

#

The Friends of Mahai'ula is a community task force working with DLNR to protect and improve the natural and cultural resources at Kekaha Kai (Kona Coast) State Park for the people of Hawai'i Island. The Friends are seeking additional volunteers who are interested in helping develop the park in a responsible and culturally sensitive way.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

MAR 17 1997

CHAIRPERSON
MICHAEL D. WILSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

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RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Dear Friend of Mahai'ula:

**Kona Coast State Park
Implementation Meeting No. 3**

Our third Friends of Mahai'ula implementation meeting has been scheduled for Wednesday, April 9, 1997 from 3:30 to 6:00 pm at the Kona Coast State Park, at Mahai'ula at the Old Magoon House. Although the park is closed on Wednesdays, the front gate will be open at 3:00 pm to allow entry for the Friends.

The agenda for the meeting is printed on the reverse side of this letter and the group memory for our last meeting on October 29, 1996 is attached. Short summaries of our November 20 and January 4 Community Workdays are also enclosed. The community workdays were very successful and everyone should be congratulated on this effort.

You will be interested to know that the State Budget, now pending before the Senate, contains two funding requests for Kona Coast State Park projects, one to develop interpretive facilities and interpretive program materials, and the other for comfort station and picnic area improvements. We thank you for your support during this Legislative Session and urge you to support these proposals by calling your district legislators.

We hope that you will be able to join us for the April 6 implementation meeting. Mahalo for your participation and continuing support for the Kona Coast State Park.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael D. Wilson".

MICHAEL D. WILSON

Enclosures: Agenda
Group Memory and
Workday Summaries

**Kekaha Kai (Kona Coast) State Park
FRIENDS OF MAHAI'ULA
IMPLEMENTATION MEETING NO. 3**

**Wednesday, April 9, 1997.
3:30-6:00 pm
at the Old Magoon House at Mahai'ula**

AGENDA

- I. Welcome and Review of Agenda**
- II. Park Ambassador Introduction**
- III. Evaluation of the Community Work Days**
- IV. Committee Reports:**
 - Marine Committee Report**
 - Cultural Committee Report including
Official Changing of Park Name**
 - Renovation Committee Report**
 - Fundraising Committee Report**
- V. Next Steps:**
 - Friends of Mahai'ula - Long Term Plans**
 - New Schedule/Site for Meetings**
 - Interpretive Program Development**
- VI. Selection of a Date for the Next Meeting**
- VII. Closing**

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Kona Coast State Park
Task Force Implementation Meeting No. 3
Wednesday, April 9, 1997, 3:30-5:30 pm
Mahai'ula at the Old Magoon House

Name	Organization	Address	Telephone	fax
FRANK KAWAHA	NATIONAL PARK SERVICE	75-138 KAWAHA ST. KE.	(808) 329-6881	329-2597
ROY DAMICO	KONA SURFERS DIVE CLUB	73-433 PINE PL. K-K 96740	325-5422	
WYN KAWA	PO BOX 3070	7 KONA KEKUN	325-0203	
CELESTINE FAYES	7 KONA KEKUN	7 HUALAHI RESORT	325-8131	
DEAN FORINSSOETH	Family Support Service	75-5759 Koa'kini	326 777P	
WYON HALL	Wai'oli Club	75-5757 Koa'kini Hwy #107	329-8158	329-8564
MURIEL WALKER	Kona Courts	PO BOX 537 C.C. 96704	322-3697	
BOB WALKER	Kona Courts	PO BOX 1119 Kailua Kona	323-2426	325-8425
RONCEY O'NEILL	OLENR. IDIFAN MAHAHA	PO BOX 4849 Hib 96720	974-4221	974-4226
FRANCO TRIGGIE				
MIKE HAMPS	North Kona DSO COOP	235 KUIHANA PLACE 96716	737-1660	732-0942
ESTER HANSEN	KONA GOLFBOOB GOLF	1825 BOULDER RD. K.K.	324-1541	

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Kona Coast State Park

Task Force Implementation Meeting No. 3

Wednesday, April 9, 1997, 3:30-5:30 pm

Mahalo, at the Old Magoon House

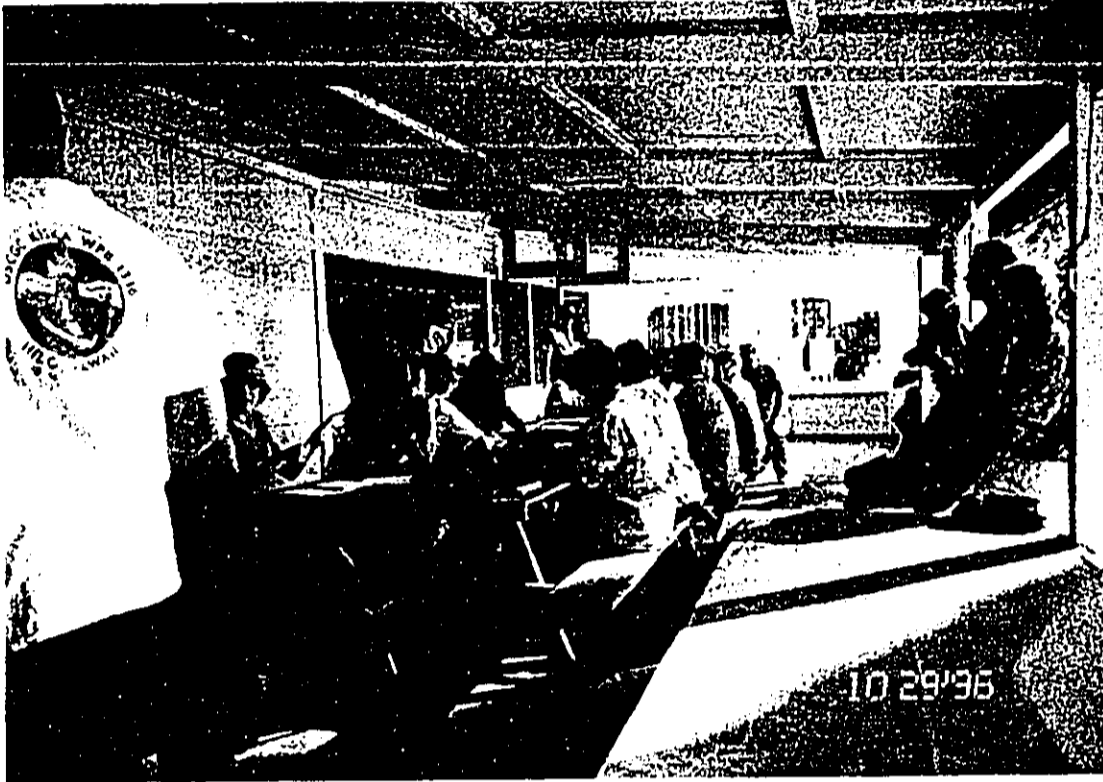
Name	Organization	Address	Telephone	fax
JERRY HANAVERSON	WIKIWO ISLANDS	KK 96740 78-7206 PULOA ROAD	324-1541	324-1541
Pete Woulkoff	DKR / DUNK	6055 36 HILLO 96720	974-6201	974-6222
JERRY	DUNK	855 351 KAUOELA 96743	885-0668	
		755 225 KAWAIAHAU Pt. K-K	329-7368	326-7722
William K. Lindon	Kauai Coast Association	722 3103 Malua Malua Hwy HI 96740	325-5126	325-7429

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Please sign in and provide
your mailing address so
that we can send you
notices of coming events.

Mahalo !





Department of Land and Natural Resources
Division of State Parks
Kekaha Kai State Park Task Force Meeting

Reconvening of Task Force to Address the Proposed "Wind on Water" Film Series

Saturday, April 25, 1998, 9 am - Noon
Old Magoon House at Mahai'ula

GROUP MEMORY

Welcome and Introduction

The meeting began with a welcome and introduction by ADR facilitator Alice Paet-Ah Sing and Department of Land and Natural Resources (DLNR) Director Michael D. Wilson. A pule for the success of the meeting was offered by Marni Herkes. Alice then reviewed the meeting agenda and ground rules. The meeting was recorded by the DLNR Community Services Coordinator Athline Clark. Prior to the meeting, Park Ambassador Casey Cho called the core Task Force members that have been involved in the preparation of the Conceptual Plan for the park and the Development Plan for the Mahai'ula Section of the park and invited them to attend the meeting.

Meeting Participants

Core Task Force Members

Carol Fuller, Friends of Mahai'ula
Roger Harris, Kona-Kohala Chamber of Commerce
Marni Herkes, Kona-Kohala Chamber of Commerce
Reggie Lee, DLNR-Division of Conservation and Resources Enforcement
Teri Leicher, The Ocean Recreation Council of Hawaii (TORCH)
Janice Palma-Glennie, Protect Kohana'iki 'Ohana (PKO), Friends of Mahai'ula
Larry Mitchell, TORCH
Rodney Oshiro, DLNR, Na Ala Hele
Monty Richards, Kahua Ranch
Marc Smith, DLNR Historic Preservation Division
Hannah Kihalani Springer, Kama'aina, Kekaha
Allan Takeya, DLNR, State Parks, Acting Hawaii District Superintendent
Curtis Tyler, Kama'aina, Kona, County of Hawaii Council Member

Chris Yuen, Member, Board of Land and Natural Resources
Michael D. Wilson, Director, Department of Land and Natural Resources

Non-Core Task Force Meeting Participants

Andrea Abay-Abay, TORCH, PATH, Jack's Diving Locker
Douglas Blake
Georgette Deemer, DBEDT - Hawaii Film Office
Nancy Erger
Virginia Isbell
Marilyn Killeri, County of Hawaii Film Office
Kawika Leicher, TORCH, Jack's Diving Locker
Marc Lepape
Brad Mossman, DBEDT, Deputy
Diane S. Quitiquit, County of Hawaii Film Office

Department of Land and Natural Resources Staff

Ralston H. Nagata, Administrator, DLNR, Division of State Parks
Athline Clark, DLNR Community Services Coordinator, meeting recorder
Sherrie Samuels, State Parks Planner
Casey Cho, Kekaha Kai State Park Ambassador

The Judiciary - Center for Alternative Dispute Resolution

Alice Paet-Ah Sing, meeting facilitator

Park Planning Background

Sherrie Samuels presented a brief overview and status report of the planning process, the Conceptual Plan and Development Plan for Mahai'ula, currently funded Kekaha Kai State Park Capital Improvement Projects (CIP) underway, and educational and interpretive programs now being developed for the park. Current CIP projects include design work for both the renovation of the Magoon house and picnic improvements for Kaelehuluhulu. Sherrie also summarized the Task Force's vision for the park overall and their vision for the Mahai'ula section of the park. Both visions were summarized on easel sheets and posted on the wall with the Conceptual Plan and Mahai'ula Development Plan drawings for reference during the meeting (see attached copies).

Overview of State and County Role in Filming

Diane Quitiquit from the County of Hawaii Film Office summarized the county role in the film industry, and noted that film productions bring in \$ 300,000 per month to the County of Hawaii. The Hawaii County Film Office goal is to have a series produced on the island. Ms. Quitiquit also noted, however, that other states and other countries actually pay film companies to produce films at their locations, and even provide free use of soundstages.

Georgette Deemer, from the Department of Business, Economic Development and Tourism, Hawaii Film Office, stated that their office conducts the statewide film permit process and has a Memorandum of Agreement with the Department of Land and Natural Resources and the Department of Transportation.

Ms. Deemer discussed the potential economic impact to the county and the state should the pilot production be picked up by NBC as a series. She stated that filming of the 1-hour Wind on Water pilot cost \$4 million to produce and that at least \$1.5 million of that amount actually stayed on the Big Island. Ms. Deemer estimated the economic impact of the series as follows: Each episode hereafter will cost about \$ 1.7 to \$ 1.9 million. Usually 40 to 60 % is spent within the State. If a conservative estimate of \$ 1.6 to 1.8 million per episode is used, with an average of 50% spent within the State, the following economic benefit would likely occur:

Low:	$\$ 1.6 \times 50\% \times 12 \text{ episodes} = \$ 9.6 \text{ million}$
High:	$\$ 1.8 \times 50\% \times 12 \text{ episodes} = \$ 10.8 \text{ million}$

If an additional 9 episodes were filmed - known as the "Back 9" in the industry, the total economic benefit to the state could amount to:

Low:	\$ 17.6 million
High:	\$ 19.8 million

Ms. Deemer also explained that film pilots and series are risky propositions in that "deficit financing" is used. This means that for every episode filmed, the film company loses \$ 700,000. They only begin to make a profit after 100 episodes, when the production is in its fifth season, and when it goes into syndication. She noted that it is rare to get past the pilot and a first season. Ms. Deemer also stated that other locations, such as Mexico, Australia, Thailand, and the city of Los Angeles, are competitors to host this series.

Ms. Deemer noted that the NBC decision is anticipated on or about May 15, 1998, and if NBC does pick up the pilot, and assuming a favorable decision from the State, preparation for the "Wind on Water" series would begin by late June 1998. The initial series would consist of 13 episodes - the pilot (already filmed) plus 12 episodes. Each episode would take 7-8 days to complete and on average, the production would spend 2-3 days each week at Mahai'ula depending on the script. Ms. Deemer noted that as such, the film company would need exclusive use of the Old Magoon house during the filming of the remaining 12 episodes. This means that the building would remain "decorated". Access to the beach would open to the public, and people would only be stopped from 3-5 minutes while actual filming takes place.

Ms. Deemer did indicate that the "Wind on Water" company understands the proposed State Park use of the Magoon building for an educational center and the film company is willing to put up a temporary educational shelter in another location at Mahai'ula to replace the Magoon house while the series is running.

Ms. Deemer noted that prior to the set up and filming of the pilot, Casey Cho and the State Parks Archaeologist conducted a walk-through of the site with the "Wind on Water" production staff to review the conditions and insure that the film company fully understood what actions would be allowed, as well as what would not be allowed.

Ms. Deemer commented that the film industry is a low impact industry with a positive benefit, and that the "Wind on Water" film company is a responsible company that wants to make a series that is the best - a reflection of the State. She stated that she would like to be able to take information from this meeting back to the film company to see what can be worked out with them.

Monitoring Filming during the Pilot

Casey Cho, Kekaha Kai State Park Ambassador, stated that he was on-site and monitored the entire filming of the "Wind on Water" pilot. Mr. Cho stated that the impact of filming the "Wind on Water" pilot was zero, and that the inconvenience was minimal. The public was able to reach Makalawena and was able to pass back and forth in the filming area. He did note that there was some congestion.

Concerns to Consider

Ralston Nagata, State Park Administrator, summarized concerns to consider in reviewing the proposed "Wind on Water" film series. The concerns were compiled from actual observations during monitoring of the pilot film production and from comments received from Task Force members and the public. The list of concerns was provided on an easel sheet and then posted on the wall for reference. A copy is attached.

Mr. Nagata noted that the road was, at one time, paved, and indeed one can see remnants of that paving still. This could mean that repaving or resurfacing the road may not require a new Special Management Area (SMA) permit, responding to that particular concern.

Questions and Answers

For clarification, a number of questions were asked throughout the meeting about the film industry and the filming of the pilot.

Economic Benefit to the County. The Hawaii County Film Office staff was asked how they arrived at the estimate of \$ 300,000 per month as the average economic benefit from the filming industry to the Big Island. They explained that the estimates are based on the film permit applications filed by the film companies. In filling out applications, the film companies are asked to estimate the total cost of the production and the amount anticipated to be spent on island - referred to as "island expenditure".

Filming of the Pilot.

1. How many people were on site during filming ? Two hundred people were hired for the "Wind on Water" pilot, - a crew base of about 100 and about 100 extras. Approximately 100 people were on-site at any given time, usually for 2 to 3 days.
2. Did the film company use generators ? How much equipment was on site, and how much of it was permanently on site ?

The Hawaii Film Office noted that vehicles that were present on site are listed on the film permit. Mahai'ula is one of several locations used for filming, and as such, not all of the equipment remained on site. It was also noted that normally vehicles go back to a base camp. Other structures, such as the proposed barn for the series, used as a "swing set", (meaning that the barn could have another set built inside), would remain on site.

When asked where the barn would be build, it was noted that the plans are not yet on paper, however it would be at Mahai'ula, in the immediate vicinity of the Magoon House. The barn would also function as a backdrop. It was also noted that Mahai'ula is really a good place to film, because the camera can be pointed in most any direction without limitations or adjustments and get incredibly visual shots.

3. To what extent was the beach directly in front of the Magoon house closed during the actual filming ? If a kayak wondered into the scene would it be stopped and told to move out of the way ?

The Film Office staff noted that the beach in front of the house would have been closed only during actual film shoot. They also stated that the kayak would be asked to stop or move out of the way, only if the kayak was in the shot. It was noted that 2 couples on the beach were asked to move during filming of the pilot.

A similar question about surfing was asked. The Hawaii County Film Office stated that this is not an issue, as the producers had previously mentioned that surfers would add to the scene. The film company may want a shot with no surfers, but generally no, they would not be asked to move.

4. Would public use of Kaelehuluhulu disrupt filming ? It was noted that one can hardly see people at Kaelehuluhulu from the Magoon House area.
5. Although it takes only 3 to 5 minutes to take the shot, how often do shots occur ?

The Film Office responded that they shoot all day long, but it takes a long time to set up - and shooting may only occur 3 to 4 minutes out of 2 hours.

-
6. Where were the film company vehicles parked ? Some were behind the house during the set dressing phase or along the road leading to the house, and many were parked in the graded parking area at Kaelehuluhulu. Ten vans, ten equipment trucks, ten trucks, and three motor homes were on site, - a total of 33 vehicles.
 7. Did the film company provide additional porta-lua ? The film company did bring in additional lua.
 8. Does the film company maintain a regular filming schedule ? Would the production regularly come down to Mahai'ula ? The Film Office indicated that they do not set a regular schedule, since they could be rained out at another location and the schedule would change. It was noted that the park is already closed on Wednesday, and that the park does get more usage on the weekends. Mr. Yuen suggested that if filming of the series is allowed, filming could be restricted on weekends and holidays. Ms. Palma-Glennie noted that that is when the area is already disturbed and that perhaps weekends and holidays would be best for filming - leaving the other quieter periods, unaffected by filming.
 9. Mr. Yuen asked if the film company needed to have the road improved, and if they do, how much better must it be ? Ms. Quitiquit responded that the film company indicated that its present condition was not acceptable. Ms. Deemer noted that some surfacing would be needed since the film company spends approximately \$ 50,000 each hour, and time is important to them. Getting up and down the Mahai'ula access road should be as efficient as possible. Task Force members voiced concern for too much improvement to the road and asked that the road be improved as minimally as possible.

Impact of Delay in Spending Alloted State Monies for Current CIP Projects

Ms. Springer asked if one of the film permit conditions is to restore the structure, could the proposed [legislative funded] improvements to the building be delayed until filming is completed. Mr. Nagata stated that if the series runs for 4 years, the current funding would lapse, so at that point, the State would want the film company to put in those improvements.

Investigation of Alternate Locations for Filming. When asked if alternate sites were investigated, the Hawaii County Film Office indicated that other locations were scouted, Kapalaoa, for example, but were either not available or needed more of a vista for the film production. The Film Office stated that they try to obtain use of State or County lands with no charge to the film productions, and that Mahai'ula was found to be very special, because the "Wind on Water" director is a very visual director, and likes to use and emphasize the landscape.

Monitoring the Pilot Filming. Ms. Springer asked how were the film permit conditions enforced? DOCARE Enforcement Officer Reggie Lee responded that the film company was cordial toward the public in asking them to move - they did not want any confrontations and in some instances shooting was re-directed or realigned to avoid the public. Mr. Lee noted that no one was restricted, and indicated that the film permit was enforced by DOCARE. Ms. Springer asked if having an DOCARE officer on site constantly to enforce the film permit conditions, took officers away from other enforcement duties. Mr. Lee indicated that the enforcement officers are actually off-duty officers and that their wages are paid by the film company.

Task Force Participation at this Meeting. It was noted that not all members of the core Task Force were present. How many Task Force members were contacted about attending this meeting? Would they be given an opportunity to comment? Mr. Cho stated he was unable to contact all of the 35 or so core Task Force members. Of those contacted but could not be present, he explained that they could provide their input in writing.

Comment and Discussion

Mr. Monty Richards commented that Kahua Ranch is being filmed for this series and that the film company has done everything that it said it would. He noted that there was "some pain", but that they would make money, and that it benefits the state and the county. He noted that some noise from airplanes is present at Mahai'ula, however it is a beautiful location. He stated that photography is not harmful and that this is not going to become "Universal Studio West". He thought that there is a potential for jobs on a short-term basis and in the long run, the next generation will benefit from the funds generated.

Ms. Palma-Glennie stated that she has a petition with over 400 names opposing the filming of "Wind on Water" at Mahai'ula. She objected to the length of the series, the use of the Mahai'ula area, the extent of the use and stated that she did not feel that this area is a proper place to do this filming. She noted that Mahai'ula is a spiritual sanctuary. She was on site while the film crew was setting up and felt uncomfortable. The fact is NBC is trying to make money at Mahai'ula is of concern to her. If she had been asked to move out of the way for even 3 to 5 minutes, she would have been angry. She stated that the ambiance of Mahai'ula essentially will be changed. Ms. Palma-Glennie also noted that the Task Force did concur that it would be a wilderness park. She noted that Kua Bay will eventually be surrounded by thousands of homes and that there will be no ambiance there also.

Mr. Blake commented further that commercial use of public parks is simply incompatible and that if a film permit for a series is approved, the film companies will "get a foot in the door". Mr. Blake noted that this is one of the last refuges, and that when this place is gone, it will be too late to do anything about it. He stated that the Task Force should look at what commercialism means on public park land, and commented that he does not believe that anyone at the meeting is looking at

preservation, but only at money.

It was suggested that that there may well be over 200 keiki on site at any one time once the education center is in operation and that this too will change the ambiance (quiet) as would 100 persons at each filming. Ms. Carol Fuller indicated that she has been teaching for 25 years and that education is not an intrusion. She objects to the film project noting that this area was set aside as an interpretive center, and that the State should stick to the idea, and not make it available for other uses. A film production is commercial, where as education is really teaching about nature at this site - essentially adopting nature.

Regarding a temporary alternate location for the education center at Kaelehuluhulu, Ms. Palma-Glennie opposed an alternate site, and stated that the Magoon house should be the education center. She stated that the film company should restore the building to it's original condition, and color, and essentially be required to help with the preparation of exhibits. Mr. Yuen also stated that an interpretive center at Kaelehuluhulu bothers him, and that is is better to do something that is already planned.

Teri Leicher noted that an education and Hawaiian cultural center is important, and that it is improtant to keep on the Task Force timeline. She suggested that with a temporary center provided by the film company, we would be able to use the State funds for something else. She asked when the renovation will occur. Mr. Nagata responded that renovation work is in design phase right now, and that the actual construction work could begin in late summer.

Ms. Fuller also noted that to conduct education, you don't need a structure, one can simply go outside. She suggested that you need to simply make the building safe, and hold class on the sand and observe the building as an historic structure. Teri Leicher stated that an outside amphitheatre could be set up for a learning center - perhaps in a grove of trees. Mr. Cho commented that eventually there could be two education centers, by making the temporary one, permanent.

Road Improvement.

It was noted that the Task Force had recognized that some road improvement would be needed and that the gravel had been donated by Four Seasons for that purpose. However, Ms. Palma-Glennie noted that drivers of 4-wheel drive vehicles now speed down the newly graded road. Mr. Yuen stated that he opposes paving the road, and prefers it as it is now graded, since it had deteriorated in the last few years. He noted that some low spots had also been filled in. Ms. Springer noted that fill displaces itself when used because people don't drive in a reasonable manner. She suggested that the costs of engineering and installation of paving be compared with the cost of maintaining the gravel road. She mentioned the use of "Chip Seal" at Hawaii Ocean Estates where a 2 lane, 2-wheel drive rural road was surfaced with this material.

Ms. Palma-Glennie stated that paving the road was not included in the plan. Other Task Force members noted that it was a degraded unimproved road and that maintenance is a long-term problem, however during filming, the film company could maintain the fill. Others suggested that speed limit signs be posted, and that perhaps speed bumps be installed. Another member noted that speed bumps would slow down the film company also. Generally, it was concluded that the road should stay the way that it is now - filled and graded, with the bare minimum of improvement.

Proposed Improvements for Parking

In discussing parking, it was asked if the film company needed to enlarge the area behind the Magoon House to place all of their trucks in one place. This would insure that the public would have full use of Kaelehuluhulu. State Parks would need to define what or how much additional grading would be allowed.

Task Force Expectations and Consideration of Task Force Recommendations

Ms. Springer indicated that she was concerned about the Task Force expectations, noted that the Task Force makes recommendations, not decisions, and that this has been a community-based management process. She asked to what extent will the recommendations will be considered in the decision on this film series. Mr. Nagata stated that Mr. Wilson, who had to leave the meeting early, will consider all concerns and recommendations and that he will make the final decision. Mr. Blake commented that Mr. Wilson had indicated at the last meeting at the airport, that he was unsure about whether or not it would go to the BLNR. Mr. Nagata responded that it will not be taken to the BLNR.

Mr. Harris noted that this is the only time the Task Force has had to deal with an unusual situation. Mr. Harris had concerns about bringing Hollywood to Kona, but also noted that the film company had spent considerable time trying to find another suitable site. He suggested that if the series must be filmed at Mahai'ula, it should be done as quickly as possible, and the building repainted to its red paint exterior.

State Park Position on Filming

Mr. Blake also asked Mr. Nagata about his position on filming, indicating that Mr. Nagata had said that that State Parks was coming out against filming. Mr. Nagata indicated that he did not say that he was for it, and that he thought it better to not have the series at Mahai'ula. However, he noted that there are other issues beyond this, and if the series goes forward, we would need to make sure that all conditions are complied with, and address all concerns to make sure the impact is mitigated. He noted that the film company does not set up every week throughout the year, and that during the off-season, the building would be as we see it now.

Impact to Cultural Resources

Regarding cultural resources, Hannah Springer suggested that on-site monitors be present, and that the filming lights be capped at nighttime since some cultural activities require total darkness, such as fishing, and some religious practices. Also during filming of the pilot, the night lights were disturbing to those who live just mauka of Mahai'ula.

Hannah also suggested that there be a mandatory briefing of the film crew on archaeological sites. It should also be understood that natural resources are cultural resources. Also, there should be no anchorage in the bay. Mr. Reggie Lee suggested that all monitoring and enforcement should be to the satisfaction of the Park Ambassador.

Roger Harris noted that the film company should be made to understand that they cannot turn Mahai'ula into Los Angeles. It was also suggested that they use post and pier construction for any structures placed on site, that no concrete be used, and only minimal grading be done.

Benefits Offered by the Film Company

It was noted that the film company is owned by General Electric/NBC, and that they do not go into a community without giving something in exchange. They want to become part of the community and want to help make what the community wants, happen. For example, they might help with infrastructure. The film office noted that the film company offer is verbal at the moment, but will be written down later; right now the film group wants to know what the community wants. Ms. Killeri also noted that NBC intends to train people in the film business.

Ms. Kelleri stated that the film company will likely say "we can do this for you now, and if we get another 12 episodes, we can do this later...." Larry Mitchell noted that given that situation, the Task Force should prioritize its requests. Mr. Yuen noted that if the series goes forward, the requests we make, should be driven by the planning that has already been done.

It was suggested that the film company talk to the 'Aina Ho'omalua program (the State Park Interpretive Program) and to the program consultants, Sara Peck and Ray Tabata from SeaGrant to understand the program requirements.

Ms. Deemer indicated that the film company will be looking at what they can afford, by area. A Task Force member suggested that composting toilets and parking should be considered. Hannah Springer requested that staff provide a copy of the Task Force Findings and Recommendations to the State and County of Hawaii film offices, and to NBC for their information.

Priority Park Needs/Projects

Ms. Paet-Ah Sing suggested that the group identify concerns and other actions that they believe should occur, should filming of the series be approved, such as providing an alternate location and facility for a temporary education center.

Ms. Paet-Ah Sing asked the group if they could list projects and prioritize at this point. Projects and needs considered included structural improvements to the Magoon House, monitoring of archaeological sites, a permanent water supply including renovation of the brackish water system, potable water tank (with a look to the future when potable water may be brought into the site), use of ethnobotanical indigenous native plants or polynesian introductions first.

The group then listed the priority projects/needs as shown in the following chart. Meeting participants were then asked to choose two of the 7 priority items listed as their highest priority projects - that is, the projects that they would most like to see completed if the film series is approved. Task Force members were polled first, and the combined group including non-Task Force members, second. The results were as follows:

Priority Park Projects/Needs	Task Force Members	Combined Group
Interpretive Program Development	0	7
Composting Toilets	7	6
Parking	0	1
Roadway	0	0
Picnic Building used as temporary education center	1	3
Structural integrity of Magoon House	3	4
Water	2	8

Summary and Closing

Alice Paet-Ah Sing thanked everyone for coming and providing their review, comment and guidance on the proposed use of Mahai'ula for the "Wind on Water" film series. Hannah Kihalani Springer gave the pule to close the meeting, and the meeting was adjourned.

APRIL 25, 1998
KEKAHA KAI STATE PARK TASK FORCE
MEETING TO DISCUSS "WIND ON WATER" FILM
PRODUCTION

EASEL NOTES

Page 1

INCONVENIENCE TO THE PUBLIC:

Parking

No. of people ? 100 - ea. 2-3 days

How much equipment/here permanently - or in and out ?
List of vehicles provided will move in and out of Mahai'ula.

Non-film vehicles left on site ? Not all here when not filming.
Sets would be left here. Vehicles leave.

Other construction here ? Yes, a barn, swing set.
Where here to build ? No plan on paper yet.

Page 2

[Overview of filming provided by Hawaii County Film Office]

13 Pilot + 12 episodes

Late June - October

7-8 days

Average 2-3 days

Low: $\$1.6 \times 50\% = \$ 9.6$ million

High $\$1.8 \times 50\% = \$ 10.8$ million

Page 3

Build barn structure in immediate area ? Yes

Backdrop here ? Views in any direction provide incredible views. Ranch house
from shore to mauka.

Closing of beach during filming ? What extent ? Just in front of house, except when
in the shots and specifics of the shot. Have use whole beach for pilot. People
moved out during the filming.

Page 4

How often to close areas?

Shoot all day, but not close areas very often.

Hours of set up for each shot - and only 5 minutes of actual shooting.

Occasionally activity in bay or at point may be a concern.

If people have to move from beach that's a concern.

10 vans, 10 equipment trucks, 3 motor homes, ten trucks - all here.

Trailers and trucks all the way along the road and taking up all parking.

Page 5

They brought in more toilets.

How are conditions enforced and by who, ? DLNR/DOCARE

Film crew took time to assist in moving people.

Lay public understands that enforcement is important but what about other areas/resources ?

DOCARE enforcement on days off come here, paid by film company.

Page 6

Movie stuff sounds great, but what about other locations than this state park ?

Other locations were scouted.

Other alternatives should be considered.

State and county lands at no charge is a big plus for industry.

Industry liked this location best due to vistas and the beauty of the site.

Page 7

Alternate locations ???

If this spot isn't used, what then ?

Film industry may go elsewhere - outside of Hawaii.

Specific areas and locations used at Mahai'ula need to be spelled out.

Peace and quiet interrupted during filming.

Peace and quiet already interrupted by the jet planes.

Page 8

Red house turned white.

Magoon house designed as education center but children will interrupt like (or more) than film company.

How many people from task force here ? Not many.

How many other meetings will there be ? No other meetings.

Don't feel educating the kids is an intrusion.

Page 9

This area was set aside as an education center and not used or interrupted use for film production.
Expectations of task force is to make recommendations - to what extent do the Task Force members concerns weigh into the decision ?
NBC did commit to a temporary site for interpt education.

Page 10

NBC does not go into community without giving - help group to make park plans happen.....
Need to see what you would like to see in Mahai'ula.
Approval not be taken to the Board ??? No.
Cumulative impacts need to be looked at.
Commercial use of public park is incompatible.

Page 11

Noise is already here with airplanes.
Filming is low impact.

Page 12

Education/cultural center important. When built ? Where build ?
When was center to be build ? Currently, structural plans are being developed and work on the Magoon House could be underway by the end of summer. Interpretive programs are already being developed.
(Timeline with state could have been longer)
Picnic pavilion could be built as a temporary education center.
Film industry training and education is planned.

Page 13

Build toilets as w/in the plan (composting)
Scheduling of filming - regularly set up ?
No, this is not feasible.
Restrict them from weekends and holidays.
Maybe consider use of the park on high impact days - like weekends.
Road needs to be better, but needs to be minimum improvements.

Page 14

Enforce speeds on road.
Keep bumps to keep slow.
Which costs more to maintain - loose gravel or paving ?
Who are we doing this for ?
Puka filling needs to occur.
Parking behind house enlarged, do we need more ?
Plans for NBC - contain use to back of house

Page 15

When do we get improvements in the public area ?
May need them with filming.
Structures kept to minimum.
Assist in restoring Magoon house, make it safe.
Outside amphitheater for education.
Improvements and restoration subsequent to filming may need to be considered - if
filming takes long, state monies may lapse and more will be needed.

Page 16

Surfing in background have to move ? (Hopefully not !)
Turn house back to RED.
Have NBC look at task force recommendations for interpretive programs.
Make sure the "improvements" are based on park plan.
Give plan recommendations to State Film office (DBEDT) and NBC.

Page 17

Appropriate action for known or unknown burial sites.
Bright lights [are] disturbing homes mauka - also for night fishing and religious
practices.
Mandatory briefing on cultural resources.
Mooring locations - don't drop anchors.

Page 18

Make sure structures for barn, etc. Are built on platforms, not grading lava.
Water - need a way for a permanent supply - renovate brackish system, bring in a tank.
Use native plants when they use/need plants.

Page 19

PRIORITIES MOST LIKE TO SEE DONE IF FILMING IS ALLOWED:
[Meeting participants were asked to choose two of the 7 priority items listed, as their highest priority projects - that is, the projects that they would most like to see done). Task Force members voted first and the combined group, including non-Task Force members, voted second, as follows.]

Priority	Task Force Members	Non-Task Force Meeting Participants
Interpretive Program Development	0	7
Composting Toilets	7	6
Parking	0	1
Roadway	0	0
Picnic Building used as temporary education center	1	3
Structural integrity of Magoon House	3	4
Water	2	8

RECEIVED AS FOLLOWS

SENT BY:

7-15-98 11:42AM HAWAII FILM OFFICE-

5870311: 1/5



State of Hawaii - Department of Business, Economic Development & Tourism
Hawaii Film Office - 250 South Hotel Street, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii, 98804-2359
Telephone: (808) 586-2570; Fax: (808) 586-2572

FROM: Hawaii Film Office TO: State Parks - DLNR, 5 pages
Attn: Ralston Nagata

FILM PERMIT APPLICATION: General Information Section

- 1. APPLICANT (Company Name): NBC
- 2. PROJECT NAME: "WIND ON WATER"
- 3. ADDRESS: 330 BOB HOPE DR., C-227
BURBANK, CALIFORNIA 91523
- 4. PHONE #: 818-840-7656 FAX #: 818-840-6606
- 5. ON-SITE CONTACT (Name & Phone #): RENEE CONFAIR
- 6. HAWAII ADDRESS (if different from above): KAWAIHAE HARBOR-BIG ISLAND

PHONE #: 808-882-4041 FAX #: 808-882-4407 Pbr. / Cel. #: 576-9786PG.

STATISTICAL INFORMATION

PROJECT TYPE: TV Commercial Feature Film Print Ad / Stock / Calendar / Mag.
 Music Video TV Episode / Special / MOW Documentary / Educational / News
 Travelog / Industrial / Video stock / Tour video Hawaii-based Network TV series
 Sports / Exercise Miscellaneous

FORMAT: Still 16mm; 35mm; 70mm movie film Video

Budget: \$1.8 x 12 Hawaii Expenditure: \$12,000,000 # HI Shoot Days: 84 # Local Employees: 100

7. FILM LOCATION REQUESTED, DATES AND TIMES (To make processing easier and faster, please attach a map of the exact location requested, or street address, Tax Map Key number, or describe in as much detail as possible. If necessary, attach a separate sheet with additional location information.):

- a) Kona Coast St. Park/Mahalula Big Isle restoration
(Name of Location) (Island) (Dates and Time)
Time=5-14 hrs. between 5a-10pm; Setup days=8-18 days between 7/20-8/20
- b) Kona Coast St. Park/Mahalula Big Isle shoot=5-10 days per month
(Name of Location) (Island) (Dates and Time)
As of 8/20/98-12/31/98; Time=5-14 hours between 4am-10pm*
- c) Kona Coast St. Park/Mahalula Big Isle prep-5-10 days per month
(Name of Location) (Island) (Dates and Time)
As of 8/20/98-12/31/98; Time=5-14 hours between 4am-10pm*
- d) _____ (Island) (Dates and Time)
(Name of Location)
- e) _____ (Island) (Dates and Time)
(Name of Location)

Continued on "FILM PERMIT APPLICATION: Specific Information Section"

Revised on 9/05/97

FIPAC # 99-028

RECEIVED AS FOLLOWS

VI 51

7-15-98 11:43AM HAWAII FILM OFFICE

2070311.2 2. 5



FILM PERMIT APPLICATION: Specific Information Section
(Complete this section for EACH location requested.)

Applicant: NBC Project Name: WIND ON WATER
Kona Coast State Park/Mahalula Big Isle Restoration=7/20-8/20
(Name of Location) (Island) (Dates and Time)

8. DESCRIBE ACTIVITY YOU WILL BE FILMING / TAPING AT THE LOCATION:

Depict red houses & adjacent property as home of the Connolly Ranch. Art Department needs to restore renovations made in March 1998. Includes deck, horse corral, windows, paint, railings, etc. Need to fix damages created during the last few months. Times=5 to 14 hrs. between 5a-10pm. Days=8 to 18 days during timeframe.

9. TOTAL NUMBER OF PEOPLE (CAST AND CREW) ON LOCATION? 10-20

10. DESCRIBE ALL EQUIPMENT AND VEHICLES ON LOCATION (Indicate Parking Plans).

a. Equipment: Construction type tools & set dressings

b. Vehicles: 6 pickup trucks, (2) art dept. trucks

c. Parking Plans: Need to park on chained road near house & behind house.

11. DESCRIBE ANY USE OF BOATS / THRILL CRAFTS / PLANES / HELICOPTERS / RECREATIONAL VEHICLES / PYROTECHNICS / SPECIAL EFFECTS / ANIMALS AND / OR ANY OTHER PROPS (Attach a separate sheet if necessary):

Should have little impact to beachgoers.

*Need access to gates.

by Renee Confair

7/14/98

Applicant / Authorized Signature

Date

Both production company and its Hawaii representative or agent are responsible for the locations and activities listed herein.

FOR USE BY HAWAII FILM OFFICE AND / OR GOVERNMENT AGENCIES

SUBMITTED BY: Georgette Deemer SENT TO: State Parks - DLNR 7/14/98
Film Specialist Signature Agency Date

APPROVED / DENIED BY: [Signature] DLNR 7/15/98
Signature Agency Date

Approved Subject to: Special / Standard Conditions General Conditions Additional Conditions
 Obtaining approval from County Gov't. / Federal Gov't. / Private Land Owner

INSURANCE: Required Not Required Attached On File with the Film Office

FAXED / SENT TO: Applicant DAGS DLNR DOBOR DOOARE DOFAW / LM / NARS Parks

DOT (Air / Mar. / Hwys.) DBEDT (HCDA) Judiciary UH (HA) Other:

COMMENTS / ADD'L CONDITIONS / NOTES: SEE ATTACHED CONDITIONS
(4 PAGES) PLUS MAP (1 PAGE)

Fees \$

Make payable to STATE OF HAWAII

FIPAC #99-028

DLNR Form 01-01-01

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SENT BY:

7-15-98 11:44AM HAWAII FILM OFFICE-

28.0311.2 3: 5



FILM PERMIT APPLICATION: Specific Information Section
(Complete this section for EACH location requested.)

Applicant: NBC Project Name: WIND ON WATER
Kona Coast State Park/Mahalula Big Isle Shoot=5 to 10 days per month
(Name of Location) (Island) (Dates and Time)

8. DESCRIBE ACTIVITY YOU WILL BE FILMING / TAPING AT THE LOCATION:

Film tv show. Depict red house & adjacent property as home of the Connolly Ranch.

Will have horses in corral & on beach. Talent swims in water; walks around property.

Days=5 to 10 days/month from 8/20-12/31. Time=5-14 hrs between 4a-10pm.

Majority of work is daylight hours;35% of time may go to 10pm; 5% to 2am.

9. TOTAL NUMBER OF PEOPLE (CAST AND CREW) ON LOCATION? 75-135

10. DESCRIBE ALL EQUIPMENT AND VEHICLES ON LOCATION (Indicate Parking Plans):

a. Equipment: Camera, grip, electric,dollies, cranes, generator(s)

b. Vehicles: 10 equipment trucks, 10 vans; 10 pickup trucks, 8 motorhomes,(2)
generators

c. Parking Plans: Kona Coast State Park; behind red houses;along access road to house

11. DESCRIBE ANY USE OF BOATS / THRILL CRAFTS / PLANES / HELICOPTERS / RECREATIONAL VEHICLES / PYROTECHNICS / SPECIAL EFFECTS / ANIMALS AND / OR ANY OTHER PROPS (Attach a separate sheet if necessary):

Specifics will be requested per episode.

*Need access to gates.

by Renee Confair

7/14/98

Applicant / Authorized Signature

Date

Both production company and its Hawaii representative or agent are responsible for the locations and activities listed herein.

FOR USE BY HAWAII FILM OFFICE AND / OR GOVERNMENT AGENCIES		
SUBMITTED BY: <u>Georgie Deemer</u> Film Specialist Signature	SENT TO: <u>State Parks-DLNR</u> Agency	<u>7/14/98</u> Date
APPROVED / DENIED BY: <u>[Signature]</u> Signature	<u>DLNR</u> Agency	<u>7/15/98</u> Date
Approved Subject to:	<input type="checkbox"/> Special / Standard Conditions <input type="checkbox"/> General Conditions <input checked="" type="checkbox"/> Additional Conditions <input type="checkbox"/> Obtaining approval from County Gov't. / Federal Gov't. / Private Land Owner	
INSURANCE:	<input type="checkbox"/> Required <input type="checkbox"/> Not Required <input type="checkbox"/> Attached <input checked="" type="checkbox"/> On File with the Film Office	
FAXED / SENT TO:	<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> DAGS <input checked="" type="checkbox"/> DLNR (DOBOP / DOCAR / DOFAW / LM / NARS (Parks)) <input checked="" type="checkbox"/> DOT (Air / Har. / Hwys.) <input type="checkbox"/> DBEDT (HODA) <input type="checkbox"/> Judiciary <input type="checkbox"/> UH (UA) <input type="checkbox"/> Other:	
COMMENTS / ADD'L CONDITIONS / NOTES: <u>SEE ATTACHED CONDITIONS (4 PAGES) PLUS MAP (1 PAGE)</u>		
Fee \$	Make payable to STATE OF HAWAII	FIPAC # <u>99-028</u>

RECEIVED AS FOLLOWS

1 01 . 7-12-88 11:44AM HAWAII FILM OFFICE 00/001337 4. 0



FILM PERMIT APPLICATION: Specific Information Section
(Complete this section for EACH location requested.)

Applicant: NBC Project Name: WIND ON WATER
Kona Coast State Park/Mahalula Big Isle Prep=5 to 10 days per month
(Name of Location) (Island) (Dates and Time)

8. DESCRIBE ACTIVITY YOU WILL BE FILMING / TAPING AT THE LOCATION:
Need to work near the red houses/Magoon property to dress the set as to specific requests per episode.
Should have very little impact on beachgoers.
Dates=8/20-12/31; Times=5-14hrs. between 4a-10pm

9. TOTAL NUMBER OF PEOPLE (CAST AND CREW) ON LOCATION? 10-20

10. DESCRIBE ALL EQUIPMENT AND VEHICLES ON LOCATION (Indicate Parking Plans):

a. Equipment: Construction type tools & set dressings

b. Vehicles: 6 pickup trucks, (2) art dept. trucks

c. Parking Plans: Need to park on chained road near house & behind house.

11. DESCRIBE ANY USE OF BOATS / THRILL CRAFTS / PLANES / HELICOPTERS / RECREATIONAL VEHICLES / PYROTECHNICS / SPECIAL EFFECTS / ANIMALS AND / OR ANY OTHER PROPS (Attach a separate sheet if necessary):
*Need access to gates.

by Renee Confair 7/14/88
Applicant / Authorized Signature Date

Both production company and its Hawaii representative or agent are responsible for the locations and activities listed herein.

FOR USE BY HAWAII FILM OFFICE AND / OR GOVERNMENT AGENCIES		
SUBMITTED BY: <u>George Deemer</u>	SENT TO: <u>State Parks - DLNR</u>	<u>7/14/88</u>
<small>Film Specialist Signature</small>	<small>Agency</small>	<small>Date</small>
APPROVED / DENIED BY: <u>[Signature]</u>	<u>DLNR</u>	<u>7/10/88</u>
<small>Signature</small>	<small>Agency</small>	<small>Date</small>
Approved Subject to: <input type="checkbox"/> Special / Standard Conditions <input type="checkbox"/> General Conditions <input type="checkbox"/> Additional Conditions		
<input type="checkbox"/> Obtaining approval from County Gov't. / Federal Gov't. / Private Land Owner		
INSURANCE: <input type="checkbox"/> Required <input type="checkbox"/> Not Required <input type="checkbox"/> Attached <input checked="" type="checkbox"/> On File with the Film Office		
FAXED / SENT TO: <input checked="" type="checkbox"/> Applicant <input type="checkbox"/> DAGS <input checked="" type="checkbox"/> DLNR (DOBOR / DOCARE) / DOFAW / LM / NARS (Parks)		
<input checked="" type="checkbox"/> DOT (Air / Har. / Hwys.) <input type="checkbox"/> DBEDT (HDA) <input type="checkbox"/> Judiciary <input type="checkbox"/> UH (HA) <input type="checkbox"/> Other: _____		
COMMENTS / ADD'L CONDITIONS / NOTES: <u>SEE ATTACHED CONDITIONS (4 PAGES) PLUS MAP (1 PAGE)</u>		
Fees \$ _____	Make payable to STATE OF HAWAII	FIPAC # <u>99-028</u>

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SENT BY:

7-15-88 11:45AM HAWAII FILM OFFICE

5870311: # 5/ 5

"WIND ON WATER"

OVERVIEW:

A typical episode will take 7 days to film. The crew works Monday through Friday, so in essence it will take 1.6 weeks to film one show. Each episode costs approximately 1.8 million dollars and employs 50-100 Hawaii residents.

Based on 7 shoot days, approximately 3 days will be at Kawaihae Harbor. Another 2-3 days will be at various Big Island locations. At this point 1-2 days per episode are scheduled for filming at Mahaiula.

Please note, NBC went to great lengths to find an alternative to Mahaiula as the primary location. Also, we are working with the concerns of the community and permit officials. Overall, we have received positive feedback and most look forward to "Wind on Water" filming at Mahaiula as well as various sites of the Big Island.

Thank you for your time and consideration.

FP # 99-028

RECEIVED AS FOLLOWS

SUBJECT: Film Permit FIPAC #99-028, "Wind on the Water" conditions for Approval for Use of Kekaha Kai State Park, Mahalula Section

Film Permit FIPAC #99-028 is subject to the following conditions:

1. Shoot to occur no more than 3 days per week. Shoot preparation may occur 5 days per week. No shoots or shoot prep on weekends or holidays.

Night shoots should be concluded before 10:00 P.M., with particular attention given to turning off floodlights or other extraneous lighting when not in use. Lighting for night shoots shall be shielded to the extent feasible such that people living upslope and the Astronomy Observatories will not be impacted by the light. Secure Department of Transportation, Airports Division, concurrence that night lighting does not hamper their operations.
2. Continuous monitoring of onsite shoot preparation and shoot will be provided by the applicant, using the Department of Land and Natural Resources, Division of Conservation and Resources Enforcement (DOCARE) off-duty officer(s). DOCARE will control access to the areas being used for filming, providing as much public use or access as possible, when areas are not in shoot or shoot prep use. This is a particular concern for the beach area fronting the buildings. During the shoot prep, public will be allowed to transit to and from areas beyond. In the water, swimmers and surfers are generally not expected to interfere with filming and will, therefore, only be asked to move beyond the camera's range in limited instances. Watercraft in the vicinity are more likely to impact filming and when necessary, will be asked to move beyond the camera's range. Sunbathers at Kaelehuluhulu are not expected to be a problem.
3. State Parks staff will monitor, as appropriate, all applicant work on site. State Parks monitoring staff will include the Park Technician and, as needed, a State Parks Archaeologist. The District Superintendent or Acting District Superintendent will have final authority in the absence of the State Parks Resources Management Branch Manager.
4. Applicant will repaint building exteriors to match the pre-pilot red and white paint upon conclusion of the approved series and subsequent to restoration of modifications described below, unless such repainting is deferred by the Chairperson. Repainting will be of a professional quality, subject to the Division of State Parks' final acceptance.
5. Exterior and interior modifications to the 2-story Magoon building will be allowed, provided such modifications are temporary. The building is to be restored to pre-pilot appearance, upon completion of the approved series, unless such restoration is deferred by the Chairperson. The Division of State Parks may request retention of certain modifications.
6. Should the film series be extended, and State monies appropriated to stabilize the Magoon building lapse, the film permit applicant will be required to fund the delayed Magoon building renovation/stabilization project. Lapse date for this funding is June 30, 2000; and the amount currently funded is \$330,000.

However, this requirement will not be imposed if all stabilization work can be undertaken during the break after this series but before any further series. Should this occur, the applicant will remove all film related furnishings and decor from in and around the Magoon House so as not to hinder the construction work. Such construction work will not be responsible to reinstall film decor, including crazed paint appearance. The applicant must realize that construction work includes some alterations to the premises (ADA or other requirements). Therefore, construction drawings will need to be reviewed by the applicant to ascertain if the applicant deems it essential not to have such alterations implemented until a later date, thereby committing the applicant to the lapsed fund requirement for such unimplemented work.

7. The applicant shall not further alter, in any way, other than painting, the historic single-story Kaelemakule Home. The front lanai of this structure may be used for filming, however, further architectural or "art" additions or modification will not be permitted.
8. If required for filming scenery, a gazebo or canoe house may be temporarily constructed in areas adjacent to the Magoon and Kaelemakule houses, but not on the beach and not in front of the Magoon/Kaelemakule Houses and related structures. These structure(s) shall be removed from the site upon completion of the applicable filming segment(s) and the ground restored to its former condition. Temporary structures shall be raised on post and pier laid on existing ground surface. No concrete slabs are allowed to be poured on the ground. Permittee is responsible to secure required building permit(s). No temporary barn structure will be constructed on the premises.
9. Holes and digging for fence posts in excess of 12 inches in depth will require monitoring by the State Parks Archaeologist. Should stone or lava rock be encountered no further excavation will be allowed. No excavation shall occur along or within the sand beach slope.

Modification or relocation of existing rock walls, cobble or other naturally occurring lava rock will not be permitted.

10. Should site preparation work uncover or reveal archaeological features and/or burials, the applicant shall stop work and immediately notify the Division of Conservation and Resources Enforcement officer and the Park Technician, Mr. Casey Cho, present on site, and call the Division of State Parks Archaeologist in Honolulu at (808) 587-0286.
11. Vehicular parking will be allowed 1) only in areas designated by the Division of State Parks, as shown on the attached map and described as follows: along the access road between the chained gate at the main access road and the coconut grove at the south end of the beach; 2) behind the Magoon-Kaelemakule House complex. Between the coconut grove and the Magoon-Kaelemakule House complex, vehicles are not allowed to veer off the road nor park off the road, unless cleared for such use by the State Parks Archaeologist, because these other areas

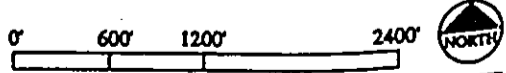
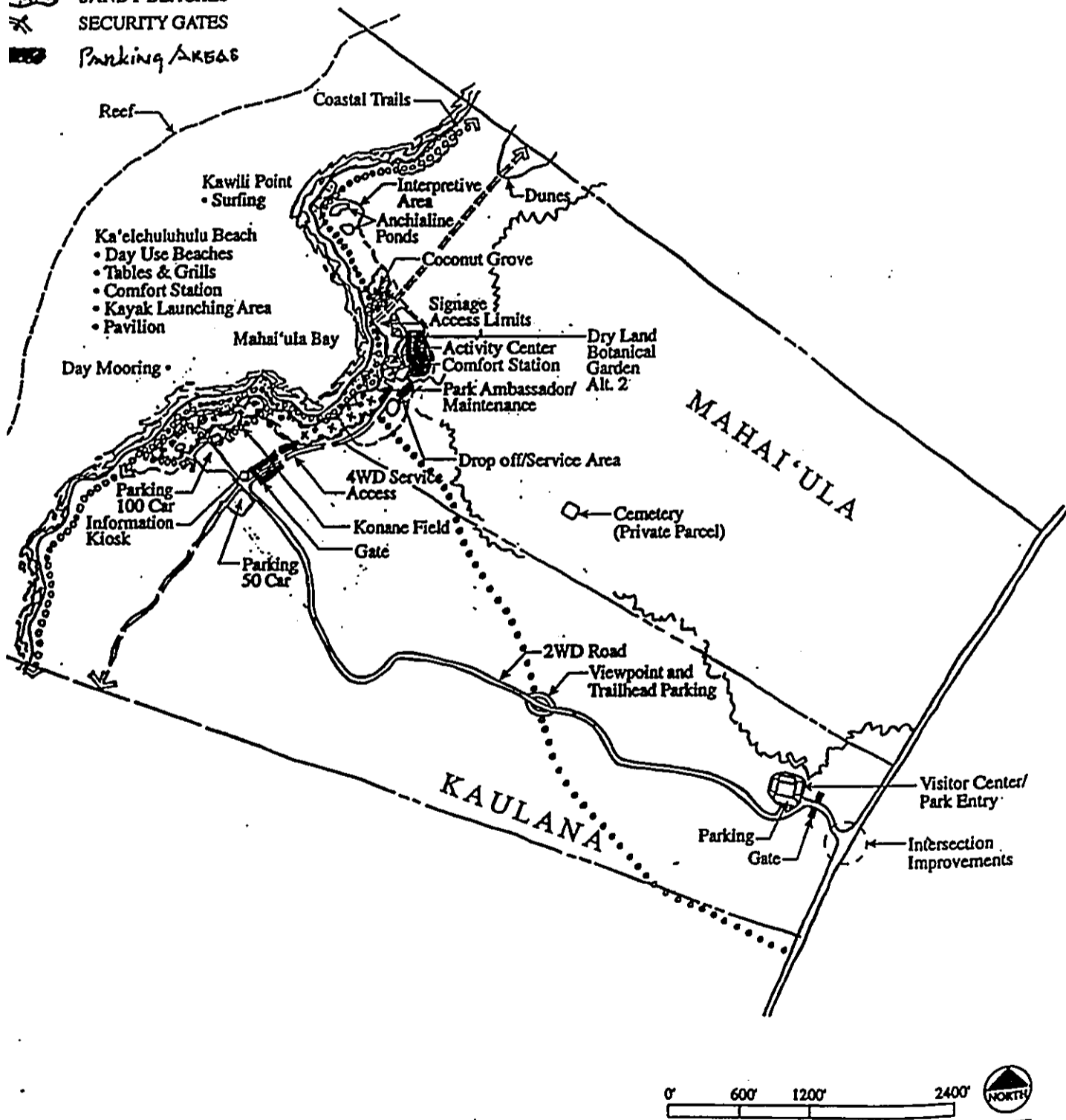
are known to contain sensitive archaeological sites which include petroglyph fields, walls, and possible burials sites. Limited expansion (grading) of this area may be allowed upon separate written request. Only on days the main gate is closed, should film vehicles park in the Kaelehuluhulu parking area. Only vehicles described below should be parked in the areas mentioned above; "extras", etc. should be shuttled into area. The designated parking areas are shown on the attached map.

12. The gravel access road may be periodically graded and/or potholes filled with material taken from the stockpiled lava rock mounds found along the main access road. State Parks staff will determine which stockpile will be used as a source. No grading shall occur beyond the existing road width. No paving of roadway and parking areas with asphalt, concrete or other similar monolithic materials is allowed. Whenever possible, road repair work should be done on Wednesday, when the main gate is closed. No such work shall occur on weekends or holidays.
13. The applicant and all members of the filming crew must be informed of the location of Pohaku-o-lama, a partly submerged rock, located off-shore, fronting the Kaelemakule House. This is a sacred site, and an important historical and cultural feature. The stone will not be used as a prop for filming. No diving or playing is to take place around the stone, and no watercraft or equipment of any kind shall be tethered to or placed upon the stone. The Park Technician will identify the stone for the applicant and crew.
14. The applicant shall obtain written approval, of the Division of Boating and Ocean Recreation and the Division of Aquatic Resources for the landing and tie up of a seaplane at Mahaula, should such a vehicle be required. In addition, the Department of Transportation, Airports Division, must be consulted regarding the operation of a seaplane within and under Keahole Airport flight patterns and approach zones.
15. No vegetation shall be damaged or removed from the site. Minor trimming of dead branches and lower limbs will be allowed, with the concurrence of the Park Technician provided there is no impact to the shade provided by the plants.
16. Horses will be allowed only under a controlled situation, within the Kekaha Kai State Park. All animal droppings shall be picked up promptly and properly disposed of in accordance with the State Department of Health regulations. Should there be any infestation of horse flies or other pests, the applicant is responsible for its eradication.
17. No open fires are permitted within the premises.
18. Any temporary toilets provided in open areas of the premises should be posted with "Public Welcome" signs.

19. No commercial sales of series-related goods and services shall be made from the park premises.
20. The applicant shall erect a temporary tent structure at a location on the park premises determined by the Division of State Parks, from which interim interpretive programs can be conducted. (Probable location in the vicinity of the southern coconut grove.)
21. The applicant shall hire a consultant to conduct cultural awareness training sessions for series personnel and to advise the applicant on cultural matters and impacts (e.g. cultural sensitivity to increased night lighting requirements including fishing and traditional Hawaiian practices).
22. The Division of State Parks shall be consulted and requested to review and discuss all other proposed modification not specifically addressed herein.
23. Other conditions as may be required by the Chairperson.

LEGEND

-  PEDESTRIAN TRAILS
-  HISTORIC TRAILS
-  4WD SERVICE ROADS
-  PAVED ROAD/PARKING
-  ACTIVITY AREAS
-  PICNIC FACILITIES
-  VEGETATION
-  INTERPRETIVE AREA
-  SANDY BEACHES
-  SECURITY GATES
-  Parking Areas



Kekaha Kai State Park Task Force

Meeting Minutes for Saturday, January 20, 2001, 1:00-3:30 pm
Mahai'ula, Magoon House

On January 20, 2001, the Kekaha Kai State Park Task Force was reconvened to review and comment on the current Manini'owali Equity Company (MEC) proposal. The invitation letter was sent to 81 Task Force members with the attached meeting agenda.

The original Task Force members consisted of umbrella organizations, adjacent landowners and members of several families native to the Kekaha region. Task Force membership included 13 official members, 4 ex-officio members (government agencies), 6 resource agencies and 5 interested individuals - a total of 28, not including the State Parks staff and the consultant (see attached list of original Task Force members). Prior to the January 20, 2001 meeting, the 13 official members were called and sent invitations to the meeting. Sixty-eight other interested parties were also sent an invitation, including the County of Hawaii Department of Parks and Recreation, as managers of the West Hawaii Veterans Cemetery, a facility adjacent to the park.

Sixteen members representing the Office of Hawaiian Affairs, the Kaelemakule Family, ocean recreation interests, the Conservation Council of Hawaii, Sierra Club, the Kona-Kohala Chamber of Commerce, State Parks on-site staff, and Mr. Christopher Yuen and Ms. Hannah Kihalani Springer attended the 2.5 hour meeting. Mr. Sidney Fuke consultant to MEC, Mr. George Atta, Group 70 International, Inc., consultant to State Parks, and the State Parks planning branch and interpretive program staff were also present.

Staff presented a status report on proposed park projects for the Mahai'ula Section.

- 1) Renovation of the Magoon House. State Parks had anticipated renovating the Magoon House for use as a Marine Education Center with offices and outdoor wet labs. Funds were released for design and construction, however State Parks would like to undertake this project with the community. With the design work completed, it is expected that renovation can be done a board at a time, resulting in considerable cost savings.
- 2) Use of the Magoon House. Initially, the Magoon House was envisioned to be focus of a Marine Education Program. A park technician was hired and did provide a presence at Mahai'ula and interpretive programs for the public. However, the individual resigned and the position has remained vacant for two years, while the plan and the interpretive program is more fully developed. The State Parks Interpretive Program is also considering developing marine education programs at several sites along the Kona Coast, perhaps at Kiholo Bay and at Wailea at Hapuna Beach State Recreation Area, and allowing its interpretive technician to offer program services at these sites as well as in the schools and for the general public.
- 3) Restoration of the Kaelemakule House. This structure built by the Kaelmakule Family, is in need of restoration, but once restored to its original condition, could provide a site from which to tell the history of Mahai'ula and the story of early life on the Kona coast. State Parks would like to undertake this restoration project with the community rather than pay a hefty sum for a contractor to do the job. The project is not a difficult one and a hands on effort may indeed be more satisfying to the community than hiring a contractor.

- 4) Replacement of portable toilets at Kaelehuluhulu. with a more permanent vault toilet structure will save pumping costs and provide a more acceptable facility. Concern was expressed about the use of a vault toilet, since the Task Force had requested composting "eco-friendly" toilets. Staff indicated that she would find out why it was necessary to use a vault toilet rather than a composting toilet.

Mr. Sidney Fuke, consultant to MEC, presented the MEC proposal, as summarized in the attached copy of the Board submittal.

The Task Force supported the MEC proposal to provide planning and improvements at the Manini'owali-Kuki'o Section of the park, including the expenditure of \$ 150,000 for a development plan and EIS. The group also supported the sharing the park access road with the MEC project however the Task Force recommended that the cost of the channelized intersection at the highway not be deducted from the MEC \$2.5 million commitment. The Task Force also asked that MEC share in the cost of the access road between the Queen Ka'ahumanu Highway and the entrance to their project, since this section of the road would be jointly used.

Staff indicated that the next step would be to submit the MEC proposal to the Board of Land and Natural Resources for approval. If the Land Board approves of the expenditure, MEC would proceed to scope the development plan with State Parks and with the Task Force, and hire its consultant. It is anticipated that the Task Force would again serve as an advisory group during the preparation of the development plan for the Manini'owali-Kuki'o Section of the park.

Other issues, not related to the MEC proposal, were also discussed and included the use of the park for commercial film making. Several members strongly opposed such use, considering it disruptive and inappropriate for a remote wilderness State Park.

No date was set for the next meeting, however it is anticipated that the Task Force would want to meet after the Land Board makes its decision and the scope of the development plan project is prepared for Task Force review.

Several members suggested that at future meetings, the Task Force may want to consider other park-related issues, such as the condition of the road to Mahai'ula, and suggested that the Task Force review its finding calling for leaving the road unpaved.

Comments received after the meeting:

Some Task Force members were unable to attend the meeting and called staff after the meeting to discuss the MEC proposal. Kamehameha Schools, the owner of Makalawena lands located between the park sections, asked about the make up of the Task Force membership, which was explained.

Kamehameha Schools also indicated that from 40 to 200 people walk from Mahai'ula to Makalawena every day. Kamehameha Schools indicated that it would like to continue the educational use of its Makalawena lands, and expressed concern about the increasing impact of public use on their property, given the numbers of State Park users visiting the fine white sand beaches at Makalawena, and the lack of facilities to serve them.

KEKAHA KAI STATE PARK Task Force Meeting

Saturday, July 14, 2001, at 9:00 am - Noon
at Mahai'ula at the Old Magoon House

Meeting Purpose: To Reconvene the Task Force to Advise the State and its Consultant on the Preparation of a Development Plan for the Manini'owali-Kukio Section of Kekaha Kai State Park

AGENDA

Pule

Introductions

Status and Schedule for Completion of Park Plan
and EIS

The Addition of a Development Plan for
the Manini'owali-Kukio Section of the Park

- Consideration of Alternatives
 - Road Alignment
 - Connections between Kikaua Point to Kua Bay
 - Facilities for Manini'owali-Kukio and Awake'e Sections of the Park
- WB Kukio Proposal to Adopt-a-Park
 - Maintenance of the Area
 - Opening and Closing the Gate
- Scheduling a Manini'owali-Kukio Community Work Day

Pule

Kekaha Kai State Park Task Force Meeting

July 14, 2001 9:00 am - 12 Noon
Mahai'ula Section at the Old Magoon House

Minutes

On July 14, 2001, the Kekaha Kai State Park Task Force met to begin the process of advising the State and its consultant on the preparation of a development plan for the Manini'owali-Kuki'o and Awake'e sections of Kekaha Kai State Park. An invitation to meeting was sent to 81 members. Thirty-nine members attended.

Ruby Keanaaina MacDonald	OHA
Nellie Medeiros	Kaelemakule ohana
Kareen Medeiros	Kaelemakule ohana
Clarence Medeiros, Jr.	Kaelemakule ohana
Hannah Kihalani Springer	Kama'aina to Kekaha
Kepa Maly	Cultural/historic ethnography
Onaona Maly	Cultural/historic ethnography
Robert Punihaole	Local Boy from Mahai'ula
Annie K. Coelho	Kahananui Family
George K. Kahananui, Sr.	Resident of this area for many years, a kama'aina
Bobby Camara	National Park Service at Volcano, park user
Jeff Melrose	Kamehameha Schools, Land Planner and Manager
Janice Palma-Glennie	Sierra Club
Scott Mandel	E Mau Na ala Hele and Sierra Club
Doug Blake	Conservation Council of Hawaii, long time user of area
Ron Aronson	Kona-Kohala Chamber of Commerce
Betsy Morigan	E Mau Na Ala Hele and Hawaii Pack and Paddle
Mike Denis	Ocean Tourism Coalition and Safaris, Inc.
Debra Chang	Kama'aina and consultant for the NPS Rivers, Trails and Conservation Assistance Program
Sue Aronson	Interested Member of the Public
Rodney Oshiro	Na ala Hele
James Kaulukukui	DOCARE
John Hino	DLNR Boating Divison
Manuel Emilano	DLNR Boating Division
Bill Bow	Civil Engineer and Planner
Sam Ainslie	W.B. Kukio
B.J. Koyabashi	W.B. Kukio
Milton Morinaga	W.B. Kukio
Christine Bean	W.B. Kukio
Kevin Kasai	W.B. Kukio
James Leonard	Big Island Manger for PBR Hawaii
Tom Witten	PBR Hawaii, Planners and Landscape Architects
George Atta	Group 70 International, Inc. Planning
Megan York	Group 70 International, Inc. Planning
Dan Quinn	State Park Administrator
Glenn Taguchi	Parks District Superintendent, Big Island
Stanley Mendes	State Park Caretaker
Sherrie Samuels	State Parks Planning Branch

Task Force members were honored by the presence of two kupuna, both kama'aina of Kekaha, George Kahananui, Sr. and Robert Punihaole and their family members.

State Senator Russell Kokubun, County of Hawaii Councilman Curtis Tyler, County Planning Director Christopher Yuen and State Department of Transportation Keahole Airport Manager Eugene Norimatsu called to indicate that they would not be able to attend. Staff assured them that meeting minutes will be sent to keep them informed.

Minutes of the January 20, 2001 meeting were distributed with a copies of the conceptual master plan drawings. Copies of these handouts are attached for reference.

Introduction, Status and Schedule

An orientation to the park and its sections was provided along with the history of the 1990 land exchange in which the Awake'e section of the park was exchanged for the Manini'owali-Kuki'o section resulting in the park's present configuration. In the land exchange the private sector agreed to fund park improvements up to \$ 2.5 million. Such improvements will include a channelized intersection at Queen Ka'ahumanu Highway, access roadway, parking area, rest rooms and whatever other park improvements can be made within the budget. In the final agreement, the developer also agreed to pay for the channelized highway intersection improvements outside of that \$ 2.5 million, a bonus to the State because such improvements could cost at least a 1/2 million dollars.

The major components of the conceptual plan for the Manini'owali-Kuki'o and Awake'e sections as approved by the Board of Land & Natural Resources (BLNR), were described for the Task Force, including the location of the roads, spurs roads, comfort stations, parking areas, and gates needed at various locations for management and access control. For clarification, it was noted that the location of the proposed access road to Kua Bay will be aligned opposite the entry to the Hawaii Verterns Cemetery located mauka of Queen Ka'ahumanu Highway.

The conceptual plan for the entire park was adopted by the BLNR in 1998. The focus of the consultant contract was the preparation of a conceptual plan for the park, and a detailed site plan report and EIS for the Mahai'ula section. With the addition of the WB Manini'owali funding, and with some urging from the Office of Environmental Quality Control as well, the project will now be expanded to do the detailed site planning and an EIS for all park sections.

The planning and development process for the Manini'owali-Kuki'o Section will be quicker than the State would be able to do it because the private sector will provide the funding and is motivated by the condition requiring them to develop park facilities before they can develop their property. Task Force meetings are intended to obtain community input and refine concepts contained in the conceptual plan while developing detailed site plans for the Manini'owali-Kuki'o and Awake'e sections. It is anticipated that the Task Force will have two or three meetings over a 2 or 3 months period to complete the detailed site planning process. The detailed site planning will then be described in the development plan report and the draft Environmental Impact Statement. Group 70 will be developing the draft EIS concurrently with the detailed planning, and anticipates that the EIS phase will take 4 to 5 months depending on the number of comments and revisions. After the EIS is completed, the State will apply for discretionary permits. Overall, the planning effort is expected to take 8 to 10 months to complete.

Planning for the Manini'owali-Kuki'o and Awake'e Sections

PBR Hawaii, representing WB Manini'owali, LLC, the neighboring developer who will make the \$ 2.5 million commitment, explained that the developer's portion of the ahupua'a of Manini'owali-Kuki'o 2 makai of the highway is to be developed as an extension of Kuki'o development to the north. The area was initially approved for 900 units, however the current owner is looking at about 150 units. There is also a 400 foot set back from the property line adjacent to the State land along the coastline that is basically a no build zone. In the original 900 unit concept, there was also an 18-hole golf course, however, there are currently no plans for the golf course. The development will be a low-density residential extension of Kuki'o with primary access planned from the Kuki'o entrance, although there is also provision in the agreement with the State for a secondary access from park access road. As presented to the BLNR in January, the highway intersection improvements that will serve the park, will also serve the Manini'owali development, and will not be deducted from the \$2.5 million.

PBR and WB Kuki'o reviewed the park conceptual plan and identified issues such as roads and circulation patterns, as well as the park visitor experience in getting down to Kua Bay, and developed preliminary alternatives for consideration by the Task Force. Three scenarios for the access road alignment were presented. Scheme A is the proposed road as shown in the park master plan on the north side of Pu'u Kuili and described as a 2-lane paved road. Scheme B looked at a road alignment south of Pu'u Ku'ili. Scheme C is another iteration of the "go south" scheme where they would minimize the blazing of a new road, and pick up on the existing jeep road that comes along the south side of the pu'u and across to the fishing camp area. PBR noted that additional information will be needed to make a decision, however they wanted to present alternatives to the group to get the members preliminary reaction. WB Manini'owali has had aerial photos and topographic maps prepared and that this will allow Group 70 to plot the locations of archaeological sites and resources and present this information at the next meeting.

Discussion of alternatives for the access road alignment, connections between Kikaua Point and Kua Bay, and park facilities as noted in the agenda addressed many different issues.

Level of Use in Each Park Section

The conceptual plan describes the Awake'e section between the Pu'u Kuili and Makalawaena as the most wilderness portion of the park and the Mahai'ula section as most intensely used section - using the term "most intense" in a very relative sense. George Atta explained that the numbers that we talk about are not intense by other park standards. Use at Manini'owali-Kuki'o was intended to be a mid-level intensity. Janice Palma Glennie commented that she thought that the northern end of the park was going to be the most developed because it was already going to be developed with all the homes around it. It was explained that the Manini'owali-Kuki'o section was always the intermediate level of use, because of the presence of a number of sensitive sites there and the fact that the strip along the coast is narrow. As such, during the conceptual plan planning process, the Task Force determined that Manini'owali-Kuki'o could not accommodate as much use as Mahai'ula. With this in mind, members also suggested that information on the number of park users and trends in park use be compiled and presented at a future meeting.

Access Road Alignment Alternatives, Facilities, including ADA Accessible Facilities

Kepa Maly reported that as he looks at the proposed road coming down near the boundary line between Manini'owali and 'Awake'e on the north side of Pu'u Kuili, he recalls that in the boundary commission testimonies, there is documentation of an extensive burial cave at the mauka end of Kahaiali'i's grant. Kepa commented that the proposed road on the north side of the pu'u would draw people to it and perhaps into it. When asked about the location of the burial cave, Kepa indicated that it is on the Kohala side of the pu'u, and as such, the presence of the cave will must be considered in discussing the road alignment.

Members noted that the alignment of the road north or south of Pu'u Kuili will also affect Awake'e. Gates may need to be moved, and the presence of a burial cave may also require relocating a proposed parking area. Members concluded that they were being asked to look at road alternatives without knowing where the resources are located and asked that archaeological sites be plotted on velumn as overlays on the topographic maps to allow them to actually see what is present on the ground.

Hannah Kihalani Springer noted that we all have recollections of the area and our various ways of accessing it, whether by donkey, or foot, jeep or truck. To have the opportunity to cross an unencumbered or less encumbered landscape, that is in the public domain, has a greater appeal than going through a resort. Some members felt that they would rather enter the park via a wilderness experience by driving into the park along the existing Awake'e roads, rather than along the edge of an urbanized subdivision. Other members desired to retain the wilderness of Awake'e by leaving the access road on the north side of Pu'u Kuili as shown in the conceptual plan.

Other concerns regarding the location of the access road included the impact of a road on campsites within the park. Others felt that the existing road should be used rather than creating a new road which would destory more of the landscape. It was suggested that the State simply use what is there, fine tune the design of it and plant more kiawe trees. Kiawe requires no maintainance and could be used to screen the road from other park areas.

Members were also interested in a cost comparison between the schemes. PBR estimated costs for the alternatives and determined that the road alignment on the north side of the pu'u, as shown in the conceptual plan, depending on the terrain and the details, and with no utilities, would run about \$ 900,000 to \$ 1.2 million. The south alignment would cost a little less because there would be less grading to be done.

Members were also curious about the developers plans for the existing road from the highway to Kua Bay once their site is developed. PBR indicated that the existing road will no longer be there. The developer is in the process of locating historic trails and will do more detailed planning around the trails in their project development plan. PBR noted that there are trail linkages proposed to get down to Kua Bay and tie in with the park facilities. It was suggested that portion of the road on State land could be re-naturalized.

Members suggested that facilities at Awake'e include a toilet with disabled person access or a chair ramp similar to the one at Honokahau, as well as a table and trash can at each camp site. Other members disagreed indicating that in the primitive area at Awake'e, there should be no picnic tables, however rubbish disposal would be needed.

Trail Connections between Kikaua Point and Kua Bay

Members discussed impacts to cultural sites and the respect and care that must be provided for these sites. Hannah Kihalani Springer indicated that her concern is always the extensive cemetery present in the areas mauka of the Manini'owali-Kuki'o section shoreline. The cemetery appears on the USGS maps, and Hannah noted that some of us have ancestors who are at rest there. There are also a number of trails associated with that burial area as well as house and religious sites.

Utilizing existing trails is a good idea, however it was noted that the trails, as well as the burials, are in danger of being degraded by the unrestricted access that is occurring on the coastline now. People, without intending to be malicious are presently following the existing trails into the cemetery. Also, the malahini do not necessarily recognize an ahu as containing bones, and so they modify the ahu. Hannah hopes that the group, working with the archaeologist during the development of the EIS, can talk about the proper ways to treat these sites. Other members were concerned about what has been happening cultural and historic sites at Manini'owali for decades, and indicated that this loss has been accelerated by the road that was created in 1985. Some wondered what is left at this point in time, especially in areas where people drive vehicles over sites.

Kepa Maly stated that he had spoken with the eldest kupuna that are living with us today, and some have gone since he had interviewed them as a part of this process. He noted that some of modification of ahu is unintentional, or for other reasons, for example local fishermen may want to be able to see a marker better on the shore while they are out on the sea. He noted that malicious excavation, and pot hunting has occurred. Kepa also discussed the heiau at Kakapa Bay that has been described as a Maui-type heiau, and indicated that this heiau is one of the most significant heiau structures on this shoreline. Documentation from native informants describe this heiau and tell us specifically that it was a heiau that was built by Kamehameha when he was in residence here in preparation for his invasion of Maui. So that heiau is very notable, and it is still intact. In archaeological terms, it may be described as a Maui-type, however it is a Hawaii heiau at least in the traditions that were handed down by the people here. Kepa also noted that the dunes have burials in them in this entire section of beach, and particularly at Uncle Robert Punihaole's childhood home at Makalawena. Local people are driving down there on a daily basis across the dunes. Kepa stated that this is an immediate management concern that needs to be addressed.

Anchialine Ponds

Members noted that the anchialine ponds and a small section of the trail on the north side of Kua Bay were bulldozed by the previous owners, and asked if the ponds and trail could be rehabilitated. Staff indicated that State Parks would like to rehabilitate the ponds, which were described as being equal in size to the area of the Magoon house lanai. Kepa noted that what remains of the pond have become a repository for diapers and plastic, and Bobby Camara observed that it now stinks.

Hannah also noted that when she was last swimming at Manini'owali, there was a green algae bloom, it was not as intense as that seen at Kaunaoa, but it was still present in class quadruple A waters. She wondered if it was the result of leaching from the wai opae that is used as a latrine, or a bloom that might have occurred anyway.

Intensity of Use vs Protection of Resources

Members expressed concern over the fact that the beach is being intensively used in inappropriate ways for the lack of facilities. Members suggested the road near the shoreline be closed. Other members did not want to close the area to camping, because camping is a big family activity. It was suggested that the area not be closed off, but rather people be required to walk to Kua Bay from a point near the end of the main access road. Closure of the lower lateral road would not be keeping people with families and children from camping, but it would keep them from going over the main concentration of archaeological sites. At the point where the road makes that turn, there is a burial, and people who drive around that gate, go over that burial. So if there is an intention to put a barricade or the gate, or move the gate, we would want to be mindful of any potential impact on sites nearby.

Others expressed concern that no matter what you build, they will bring their torches and they will cut gates. It was suggested that to take care of the vandalism problem, you need to weld the gate at the shoreline and also put a gate on the highway that you can open in the morning and close at night. You then solve the problem because nobody is supposed to be down there at night. Night time is when they go down there and they vandalize.

Members suggested that the gate at Mahai'ula is not cut because the public know that it is a park, so in addition to a barricade, some sort of park signage is needed indicating that it is a park and what the park hours are. Glenn Taguchi noted that even though the gate at Mahai'ula has not been cut, people have moved rocks to gain entry. Staff noted that a public announcement regarding the locking of the gate and park hours would be needed.

Trail on Pu'u Kuili

In discussing the trail up going up Pu'u Kuili, Kepa Maly stated that kupuna tell us there are burials out here. We know who is buried there in the 1870's. His name was recorded. Kepa asked if it is appropriate to have that kind of access up there, or least, uninformed access. Kama'aina did travel there, but when they traveled there, they traveled in a manner of greater respect. Kepa asked Uncle Robert who bulldozed the road up to the top of Pu'u Kuili, to which the group responded, Bill Kawahara in the 1970s.

Kepa also noted that in 1882, J.S. Emerson, a preeminent surveyor, and Kekaha historian because of the people he had the opportunity to interview and get site references from, said that his station marker, the Kuili Station Marker, was actually set atop La'anui's grave at Pu'u Kuili. So this has been going on for some time, it is just a different kind of sensitivity.

Kepa noted that these things have been covered in historical/archival work, and he was concerned that there is no reference to the historical/archival work and the personal oral history interviews with the native families in the plan in the conceptual plan. Kepa concluded that these are key areas must to be addressed.

Need for Information on Archaeological Sites

Task Force members expressed concern that they were trying to do site planning without information on the cultural resources and asked if the archaeological work could be made available to the Task Force to use in doing the site planning. George Atta indicated that the work could be presented at the next Task Force meeting.

Staff indicated that the State Parks archaeologists, Alan Carpenter and Maurice Majors, have done the work for Mahai'ula section, and it is likely they will contribute to or actually do the work for other park sections. Kepa commented that he sees value in people like Alan, Martha Yent and Maurice Majors doing the work because there is a long-term involvement and continuity that is valuable in long-term preservation and interpretation.

Signs

Members also suggested that signs be provided telling people how to behave in sensitive areas. For example, signs for anchialine ponds, could tell how the ponds should be cared for. Similar signage should be provided for other park resources as well. Task Force members commented on the existing signs at Mahai'ula and noted that most are negative, "Dont do this" type of signs. Such signs are not welcoming, nor friendly, nor educational. Members suggested that the signs be more positive, informative and tell the visitor how to behave in the park. Signs should be also interpretive, but lend themselves to park management. The group felt that signs should be prepared and installed now.

Improvement and Management of Kua Bay

WB Manini'owali has agreed to provide utilities and a comfort station. Members asked if this was to be a composting toilet or tied into the adjacent developer's waste water treatment system. Staff confirmed the intent was tie the facility to the developers waste water treatment system. Members suggested that the resources should come first and that a composting toilet be used, eliminating infrastructure expense. Ocean water at Manini'owali is the clearest on the island, and members were concerned about the risk of a sewer pipe break and a sewage spill. Members supported the use of composting toilets noting that these toilets produce fertilizer that is similar to peat moss in texture, has no odor, is not dangerous and requires no water or electricity. To this could be added solar power, although staff reminded the group that solar panels are often stolen. Members noted that vandalism is always a problem. Betsey Morrigan suggested that the State needs to put a lua in there right now.

Funding for Improvements and Staffing

Members desired to know more about park funding, and staff commented that while there is funding for specific positions, utilities and other expenses are often billed statewide or islandwide, and not park specific. When a plan is developed and we are ready to make improvements, State Parks will request operating funds from the legislature. State Parks had some CIP money for improvements, but with current costs, could only afford to construct vault toilets at Mahai'ula.

Members suggested that perhaps some of the \$ 2.5 million could go into maintaining the areas that are now in use by the public. Staff noted that there has been discussion with the WB Manini'owali about the State Parks "Adopt-a-Park" program to help care for the area. Another member suggested that a portion of the \$ 2.5 million be deposited in a fund to grow interest to serve as potential operating funds.

Members thought that management of this entire park area is critical. Staff is needed to clean and maintain the area, and to provide a presence. Some suggested that the park

system needs park rangers similar to the national park rangers, and suggested that the state come up with a plan to provide rangers to care for resources. Members wanted to manage the resources properly to insure that the resources we enjoy today, and we enjoyed 30 years ago, and that our grandparents enjoyed 100 years ago, stay here.

Some members suggested that enforcement should be in place before a park area is opened to the public to insure that resources are protected. While enforcement can protect the resources, the Department's Division of Conservation and Resources Enforcement must cover fishing, parks, hunting, unencumbered lands, boating issues and related activities, and they have just a few officers stretched over the whole coastline.

Members suggested that State Parks inform the group of State Park needs before December 2001, so that the group can approach the Legislature and support State Park requests. Others suggested that perhaps some agreement for maintenance could be reached with WB Manini'owali LLC, something similar to the arrangement at Kiholo where the private landowner has committed to maintain the area for 5 years. In a broader view, members suggested that the issue may be the opening up and use of coastal or other natural resource area without supervision or management.

One member noted that we should not be caught up in the "availability of capital funds in a desert of operating funds". A commitment to a management oriented concept is needed. Another member suggested that partnerships be formed between different groups, such as OHA, Kamehameha Schools, even individuals, - "people who love the land" and who's foremost ideal is a stewardship of the resources of this coast.

Staffing: Hiring Kama'aina

Staff noted that State Parks does have a vacant interpretive program position, and that State Parks is considering hiring to fill the position again. Members recommended that a kama'aina be hired, a kama'aina to the land within the park boundaries, such as native families with generational attachments, to serve as staff on site. Kama'aina families bring sensitivity, knowledge and tradition with them. Staff explained that recruitment is generally first within DLNR, then within State Government and should no one apply, notice of recruitment will be published in the newspapers, and anyone may apply. One member suggested that the job descriptions be taken to the kupuna and that a whole new job description be created - "stewards of the land" for the area or region. Kupuna could also come up with the job descriptions to train the people to be the caretakers.

Members also asked if a residence is provided in the park to provide a presence. Staff explained that a residence at Mahai'ula is still in the conceptual plan, however when design work for renovation of the Magoon house resulted in exorbitant costs to meet the building code, the project was halted. Kepa reminded the group that the history of the Magoon house and that modification of it should be carefully thought out. Staff indicated that the intent is to restore, not modify. Dan Quinn also explained department policy regarding existing and new residences within parks. Although older park residences may be presently occupied by park caretakers, new residences must first be offered to the Division of Conservation and Enforcement. Members suggested that an endowment fund be created for operating expenses, and to help create resident housing, and perhaps a classroom that is ADA compliant. They suggested that if the community hired the person with the endowment fund, the school would be then community-owned.

Trails and Roads: Ownership, Use, and Preservation

Kepa Maly also pointed out that on the makai side of Pu'u Kuili, passing Kohiawa, shown on register map 1278, which is Emerson's survey in 1882, based on the boundary commission document, we are dealing with a public state access. The ala loa connects all the way through these lands and is mapped on register map 1278, and is therefore a good reference point for the Emerson field books. He noted that the old trails actually cut through Kikaua, across the beach at Uleweoweo, and back into the lava at Kaupulehu, through Kalaimanu to the Kiholo beaches, so it is the historic ala loa. He also cautioned the group to insure that the park access road is not placed on the ala loa and that development does not destroy it.

It was noted that there are segments of trails that are clearly marked and easy to see, while other segments are hard to see, and often it is difficult to determine which is the ala loa and which are part of the ala kahakai, yet we are in the process of connecting a continuous trail. The question was asked if a *developed road* would be included as part of the connection. The group clearly stated that the trails should not be made into roads, and Kepa emphasized that we should be certain that we are not overlaying campgrounds or park access roads on archaeological sites or complexes as well. He noted that at Kiholo, there has been a complete disregard for sites.

With respect to the road use, another member wondered how local people would actually use the access road, noting that many park users will not go to the parking lot, but will instead choose to put their car close to their picnic area. They will *huki* their cooler a couple of feet and find a place to sit down near the ocean with their back to the road. This is a local way of going. We will likely see what we see at NELH where guys pull off to the side of the road, pull their car up as close as they can and enjoy themselves.

However another member suggested that NELH has more sand, while here we are looking at a rockier terrain, and the closer we get to the shoreline, particularly in the vicinity of Kahioawa, there is going to be a greater density of archaeological features. Members wondered how the density of archaeological sites will affect project cost?

Hannah also stated that utilizing existing trails is a desirable thing. When we advocate the preservation of trails, we should not preserve for preservation's sake, but continue the trail functionality. In the old days, when we used to walk on the trail, everybody walked on the trail, but with more users nowadays, some folks walk on top of walls, because the trail has eroded. Hannah recommended that a state archaeologist determine where the trail is in the section just to the south of Kikaua.

Hannah also recommended installing constructive signage to inform trail users of the burials at Kakapa. There has been a variety of discussion, from fencing to no signage. Hannah indicated that her notion is that people who are going to behave badly, will behave badly, no matter what we may do. However, if we can encourage people towards better behavior, then the person who is walking and who's attention is fetched by an ahu or a trail towards the interior of the island is going to have the opportunity to make a choice to behave respectfully or not. She also noted that on some trails, such as the trail at Papiha, the older coastal alignment has eroded with the wear of the surf, in other areas the trails may have been defined by new users such as at "The Great White Way" (use of coral to define a trail).

Signs should also be placed at the bottom of trails leading to the cemetery. It was noted that

this trail is constantly under pressure from both people and goats. Goat activity is also adjusting in response to development. Kepa noted that people see the trail from makai looking up and in some places the trail has been eroded and now people have adjusted, and now walk on house sites. Hannah noted that it has been interesting to watch as there has been increased pedestrian use on that section of trail, the old clinker trail is becoming less and less stable, another trail off of the aa flow more to the north, which in her youth was a secondary trail, is what is stable now. The highest priority should be to guide people away from burial sites there, noting that this *pa'ilina* is a large one.

Members discussed the ownership of mauka-makai trails and coastal trails, and which ones are designated as "government roads". Kepa noted that kupuna can bring you to the actual site and provide the placename, and indeed kama'aina still use these trails. The discussion concluded with the fact that much more can be said on this subject.

Information for the Next Task Force Meeting

Task Force members requested that at the next meeting the information be presented on velumn overlays, so that they can see what is going on. Members stated that they don't want to overlook anything, and that this is their chance to make sure that the plan is properly done. One member commented that if all sites are overlaid, the white areas will show where the road could perhaps go. Members suggested that given the costs involved, if we have a chance to do it right, then we should create something that in the long run is really good. Members again emphasized the need to have specific archaeological information prior to doing site planning.

Need for a Public Information Meeting

Hannah Kihalani Springer noted that some time has passed since Board approval of the conceptual plan, and that there has been a change in the members opinion, with respect to the road alignment. As such, Hannah asked if a public hearing would be held to obtain community input on a recommendation for vehicular access to the north or the south of Kuili. Staff stated that State Parks could do a public hearing or information meeting. Hannah recalled that during the initial planning period, the Task Force went through a period when members participated in small group meetings and then the group recommendations were taken out the broader public at a public information meeting.

Ruby MacDonald asked if the Board meeting would be like a public hearing. Dan Quinn responded that the Board meeting is a public meeting, but it does not offer the same opportunity for people to testify. A public hearing or informational meeting would provide a better opportunity for expression of opinions on this issue. Glenn Taguchi reminded the group that at Board meetings, the recommendation has already been prepared, so staff is not gathering information in order to come up with a decision. People testifying at a Board meeting are either in favor of the recommendation or not in favor of it. It was noted that the conceptual plan is already approved by the Board, and changes such as a realignment of the road, could be considered as an amendment. Members asked if Board approval is required for the development plan. Staff noted that once the Board has approved conceptual plan, we supply the details in the development plan and go on to the EIS phase. Sherrie noted that a major amendment may require that we go back to the Board.

Members asked if there was public input prior to the Board approving the conceptual plan,

Sherrie responded that when we first started the planning process, two public meetings held, and then the Task Force was established and met at 5 to 6 meetings over a two year period. The Task Force then presented its recommendations at a third community meeting.

Members noted that the archival and historical report is now available and the additional information may be enough reason to reassess the road alignment.

Proposal for a Non-Profit to Run the Park

Task Force members discussed the non-profit stewardship concept. Staff explained that there are non-profit groups that run programs or areas of parks, such as at Kokee State Park on Kauai, or the Hawaii Nature Center at Makiki on Oahu. Liability can be a problem for private sector groups in managing a big park. Members recognized that the State needs to continue to be involved if a true partnership is to exist, and the State should take on the liability because the State has that ability.

Staff explained that with non-profit groups, the Board of Land and Natural Resources allows a pilot period of a year, with time extensions, and thereafter, a long-term agreement, rather than a lease. Members also asked about the difference between a curator program and an Adopt-a-Park program. Curator programs are used primarily at historic sites, such as a heiau that is cared for by a curator group. The "Adopt-a-Park" program is more general, involving regular clean-ups or similar projects. Both programs can be modified or adjusted to the situation in a specific park or with a specific group.

Adoption of the Park

Staff noted that WB Kukio was considering assisting with maintenance of the area, including the opening and closing of the gates and that they are thinking about adopting the park.

Mr. Ainslie of WB Manini'owali stated that hearing everything that has been said at this meeting has provided insight. WB Kukio would like to fulfill its obligation for expenditure of the \$2.5 million and get this park completed because the existing condition is irresponsible from both a private citizen's and from a developer-steward's viewpoint. He indicated that Kukio is required to keep the existing gate and road open, so consequently they want to build an appropriate alternative as soon as possible. He stated that it is in their business interest to clean up the Kua Bay area, and they would like to organize a clean-up day. He noted that a clean-up day without follow-up management is not effective, so they would like to commit their resources to an Adopt-a-Park program. However, he felt that they should not be the sole group in that Adopt-a-park program for the park, and suggested that a group could be formed with the various interests to create productive working sessions.

Mr. Ainslie indicated that his firm is able commit resources independent of the \$ 2.5 million to install a lua and a dumpster, and send their staff over a couple times a week to clean it up. Members thought that this was a good idea, and discussed design, access to and permits for a composting toilets and portable lua. When asked about his firm providing leadership, Mr. Ainslie also stated that they have discussed this internally and intensely, and Christine Bean has been designated as the person who will coordinate this effort. He noted that they will commit the resources and their organization to this effort.

Deborah Chang called for a plan of action, to determine if there is interest in forming an

Adopt-a-Park group, and passed a sign up sheet around to the members. It was also suggested that the new Adopt a Park group could team up with the older group, Friends of Mahai'ula at Kekaha Kai group, and that they should contact Marni Herkes for information.

Christine Bean stated we can plan the community clean days, but it has to go hand in hand, with a follow-up plan. The Adopt-a-Park group can work with the community will facilitate the community clean up day and the on-going maintenance program, or whatever interim measures that we come up with. Mr. Ainslie stated that the ideal scenario is that they will form a 501-3C organization that they can provide resources and it is the organization that creates the action that works with State Parks on an interim plan. Christine stated that they will come up with an action plan for provision of the interim lua, interim facilities, and trash receptables. Then, they will present the plan to the State.

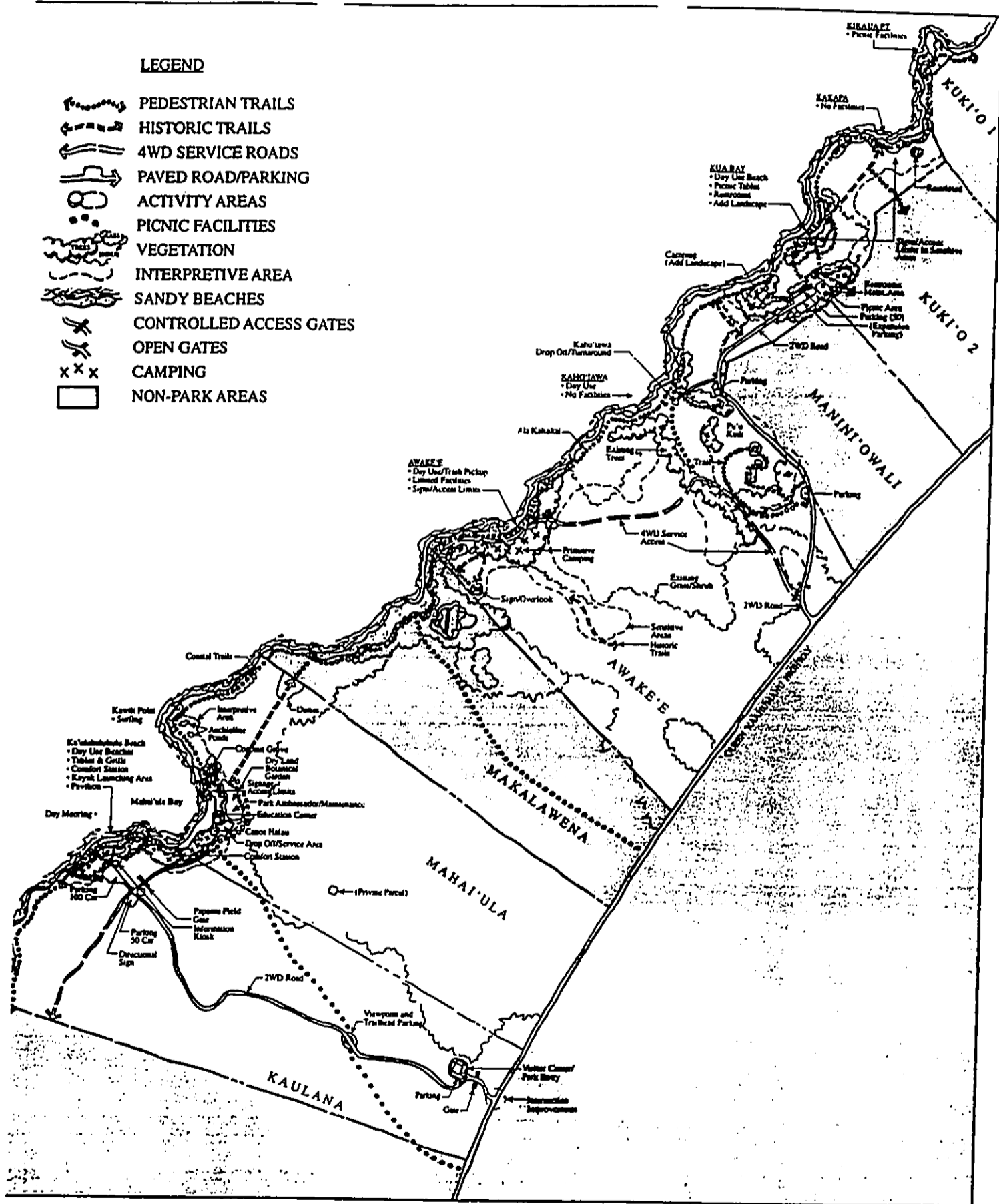
It was suggested that once that group list is compiled, the group could meet independently but would complement State Parks' effort. Hannah recalled that back in the days when Mike Wilson was Chairperson of DLNR, the hope was that something would spring out of the community, perhaps that was not the time, but perhaps this will be. She thought that it was Mike's intention that there would be a group that would be self-reliant.

Kupuna Guidance

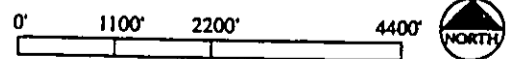
Kupuna Robert Punihaole told the members that he had been sitting and listening, and he heard a lot of good suggestions. He thought the main point for all of us is to teach and educate the people. He has seen how reckless people are now days -they paint lua all over, and then gates, it's the same thing ! He suggested that we open a walkway down to the shoreline, and have the park user follow that walkway instead of taking the jeep. If someone cuts the gate, then get the law to come in and arrest the person. He stated that we are trying to keep the place as peaceful as we can, so we need to educate these people, give them rules to follow at our beach. He said that we need to give them something to think about, and control their recklessness. He reported that often people picnicing will bring their home rubbish and leave it in the park trans containers. He noted that he has no authority to stop this, so it is up to us to educate them, or put a big sign on the trash can -" Beach Rubbish Only". He said, "We need to educate the hoodlums. Pardon my language, it hurts me. These my suggestions. Thank you." Together, all of the Task Force members thanked him for his guidance.

Mr. Punihaole also stated that he appreciated coming to a meeting like this, but the most important thing is to put everything in gear and move forward. He thought that as far as getting people to coordinate, there's no problem, he recommended that we organize ourselves properly and to adjust ourselves to the needs of others, and at same time, teach others respect. He told the group "I go along with that !" The meeting was adjourned at about 1:00 pm and all enjoyed the pot luck lunch provide by WB Manini'owali and by members.


Sherrie Samuels

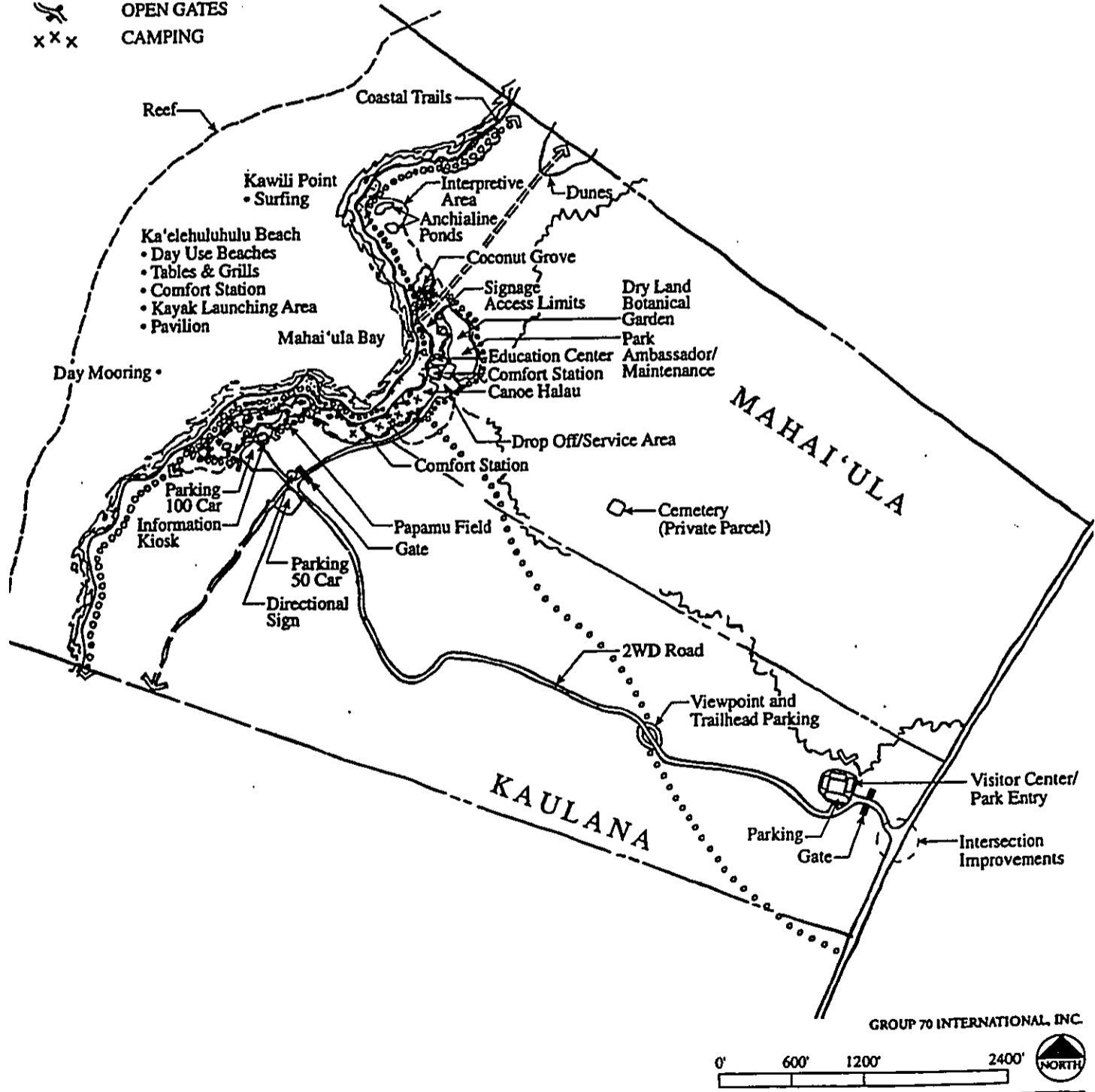


GROUP 70 INTERNATIONAL, INC.








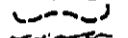






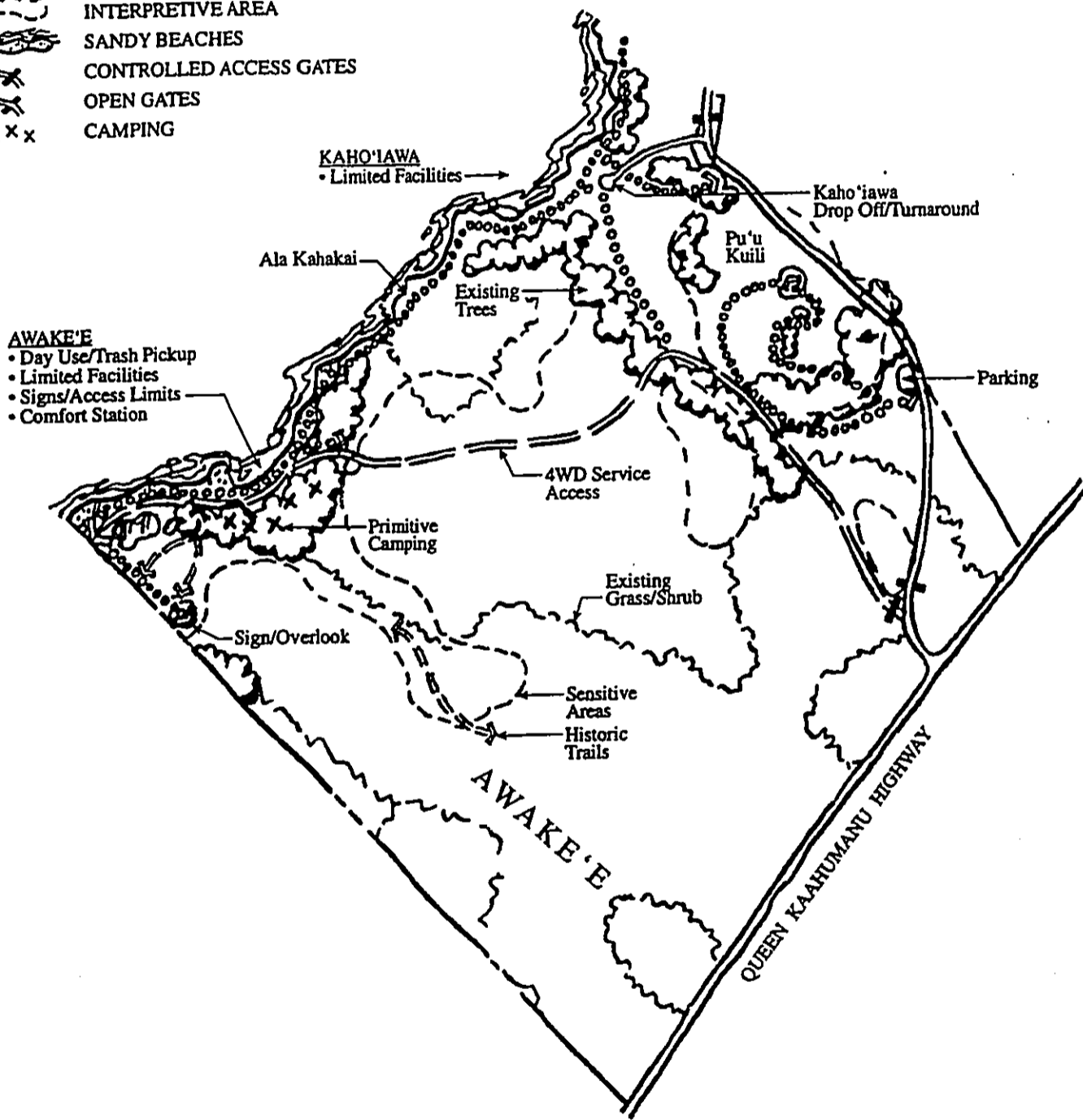
LEGEND

-  PEDESTRIAN TRAILS
-  HISTORIC TRAILS
-  4WD SERVICE ROADS
-  PAVED ROAD/PARKING
-  ACTIVITY AREAS
-  PICNIC FACILITIES
-  VEGETATION
-  INTERPRETIVE AREA
-  SANDY BEACHES
-  CONTROLLED ACCESS GATES
-  OPEN GATES
-  CAMPING



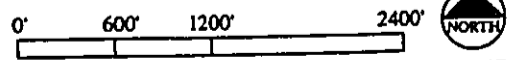
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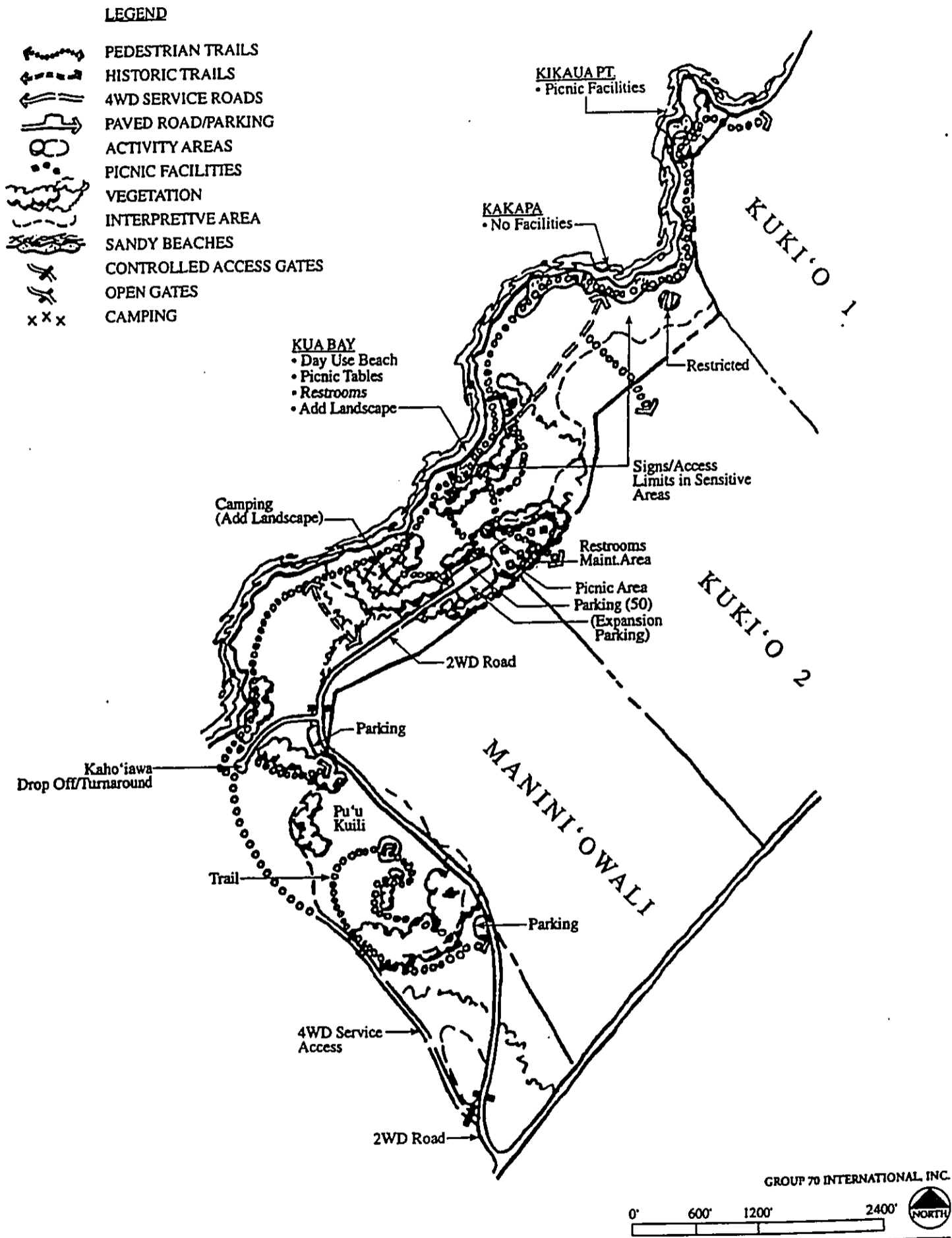
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-  INTERPRETIVE AREA
-  SANDY BEACHES
-  CONTROLLED ACCESS GATES
-  OPEN GATES
-  CAMPING



- AWAKE'E**
- Day Use/Trash Pickup
- Limited Facilities
- Signs/Access Limits
- Comfort Station

GROUP 70 INTERNATIONAL, INC.





KEKAHA KAI STATE PARK Task Force Meeting

Saturday, September 29, 2001
9:00 am - Noon
at Mahai'ula at the Old Magoon House

AGENDA

Pule

Approval of Task Force Meeting Minutes of
July 14, 2001

Resources of the Manini'owali-Kuki'o and Awake'e
Sections:

- Natural Resources
- Cultural Resources
 - Archaeological Sites

Proposal for Re-alignment of the Kua Bay Access Road

Proposal for an Adopt-a-Park Organization

Pule

Adjournment

Kekaha Kai State Park Task Force Meeting

September 29, 2001 9:00 am - 12 Noon
Mahai'ula Section at the Old Magoon House

Minutes

Attendance

<u>Name</u>	<u>Organization</u>
George Atta	Group 70 International, Inc.
Ron Aronson	Kona-Kohala Chamber of Commerce
Sue Aronson	Interested Member of the Public
Christine Bean	W.B. Kukio
Douglas Blake	Conservation Council of Hawaii, park user
Bobby Camara	National Park Service at Volcano, park user
Debra Chang	Kama'aina and NPS Rivers, Trails and Conservation Assistance (RTCA) Program
Kaliko Chun	Office of Senator Lorraine Inouye
Annie K. Coelho	Kahananui Family
Mike Denis	Ocean Tourism Coalition and Safaris, Inc.
Barbara Eldridge	Park User
Nethalda Jensen	Kekaha Kai State Park Caretaker
George K. Kahananui, Sr.	Kama'aina/Resident of this area for many years
Terri Leicher	Ocean Recreation
James Leonard	Big Island Manger for PBR Hawaii
Kepa Maly	Cultural/historic ethnography
Larry Mitchell	The Ocean Recreation Council of Hawaii
Robert Okawa	Na ala Hele
Cindi Hanohano Punihaole	Punihaole Family- future curators
Edna Punihaole	Punihaole Family
Robert Punihaole	Local Boy from Mahai'ula
Milton Morinaga	W.B. Kukio
B.J. Koyabashi	W.B. Kukio
Scott Mandel	E Mau Na ala Hele and Sierra Club
Kevin Kasai	W.B. Kukio
Dan Quinn	State Park Administrator
Sherrie Samuels	State Parks Planning Branch
Glenn Taguchi	Parks District Superintendent, Big Island
Megan York	Group 70 International, Inc.
Christopher Yuen	County of Hawaii Planning Director/Park Advocate/User

The purpose of the meeting was to continue discussion of the development plan for the Manini'owali-Kukio and Awake'e sections of Kekaha Kai State Park and to arrive at a conclusion on an alignment of the road and the potential location of park facilities along the shoreline at Manini'owali-Kukio Section of the park. A decision was needed to allow the State and its consultant Group 70 International, Inc. to move forward with archaeological surveys along the road alignment corridor and to prepare the detailed development plan facility alternative layouts at the Awake'e and Maninio'wali-Kukio sections of the park.

The meeting began with a puʻle followed by Task Force member introductions. Task Force members reviewed the minutes of the July 14, 2001 meeting and noted corrections to the spelling of Hawaiian names. The members also noted that Kua Bay is a name that applies to the ocean, and that the land area should be referred to as the Ahupuaʻa of Maniniʻowali and Kukiʻo. The corrections were noted and the minutes amended.

Dan Quinn stated that a potential State government hiring freeze will impact State Park operations and will make community participation essential. Dan also noted that the current working arrangement involving the Division of State Parks, Group 70 International, Inc. (the State's consultant) and W.B. Kukiʻo, the private landowner, is unique. The Group 70 International, Inc. scope of work has been expanded to cover the additional park areas and the project funding will now come from two sources, the State and the private landowner, W.B. Kukiʻo.

The State will be the accepting authority for the plan and EIS, will sign off on all documents and review all expenditures made by the private landowner in funding the work under its \$ 2.5 million commitment obligated during the earlier Awakeʻe-Maniniʻowali-Kukiʻo land exchange. In addition to planning, design and construction of improvements within the ahupuaʻa of Maniniʻowali and Kukiʻo will be included.

Task Force members suggested the preparation of an chart showing the work to be done and the source of the funding for each task. Members asked which firm will do the design work. Dan indicated that Group 70 International will do the detailed site planning and the Environmental Impact Statement, however a design consultant has not been hired.

Task Force members also asked when the work would be completed; staff indicated that the intention was to complete all work within one year. State Parks will also request funding for park operations during the next biennium budget period.

Access Road Alignment

George Atta reviewed the conceptual plan and noted that the concepts for the Maniniʻowali-Kukiʻo and Awakeʻe sections of the park including the road alignment shown on the plan, were approved by the Board of Land and Natural Resources. Under the current effort, the Task Force is revisiting the road alignment issue. The question is whether we keep the alignment as shown on the conceptual plan or change the alignment to the south side of Puʻu Kuili.

Three road alignment options were discussed. Option A is the existing alignment on the north side of the puʻu. Option B is the alignment on the south side of the puʻu, located higher up on the face of Puʻu Kuili. Option C is also a south side alignment, but located more in the coastal area.

Task Force members asked if the road would be two lanes and what the width of the shoulders would need to be. Dan Quinn responded that the road would need to be wide enough to allow vehicles to safely pass and wide enough for emergency vehicles - essentially double the width of the existing dirt road. The road would also be paved all the way to the parking area.

Archaeological surveys were discussed including the level of work done to date, as shown on State Archaeologist Alan Carpenter's map of the park. A topo map with archaeological sites noted was presented with a caveat. The sites shown were located before the advent of GPS, so the location may actually shift 2 to 30 feet when GPS is used to plot the sites. The map represents what is known at present. It was noted that a topographic map was prepared by the W.B. Kukio for the Manini'owali-Kukio section, however a similar map had not yet been prepared for the Awake'e section. Deborah Chang expressed concern about not having the topography for the Awake'e section.

Bobby Camara indicated that he is familiar with the archaeology of the park, and noted that there has been a lot of looting over the years. He suggested that the archaeologists do look at promising sites that are outside the access road alignment or facility development area boundaries. He also noted that the "everyday" archaeological sites, such as agricultural, fishing and hunting sites, are important and should be included. Kepa Maly noted that archaeological back piles should be restored at the site as a practice, so that the piles are not "flags" to those who would loot. Further discussion noted that the State policy is to avoid and preserve the sites in developing the park. Site planning for the park will follow this policy.

The Task Force discussed the topographic conditions, the clusters of archaeological sites and the aerial photo, and noted that the location of the access road might affect the integrity of the cluster. It was also noted that some sites are caves and that heavy construction equipment could damage these sites. Chris Yuen stated that caves often extend beneath the surface and the extent of the cave is not always known. Task Force members suggested working around the sites and features in laying out facilities.

Members recalled that in the conceptual plan, Mahai'ula and Manini'owali-Kukio were the accessible sections, while Awake'e would be a more remote and less accessible area. In discussing the road alignment options, members noted that the archaeological surveys may reveal more sites on the south side alignment near Kahoiawa. It was also noted that a road alignment higher up on the pu'u would require cutting into the pu'u.

Dan Quinn noted that the group had discussed the constraints on the south side, but on the north side there is an agricultural terrace, leaving a narrow gap for the road. Construction would need to insure no disturbance occurs.

Kepa Maly discussed his archival research and his earlier statement at the July 14, 2001 Task Force meeting where he noted the possible presence of a burial cave at Pu'u Kuili. Kepa indicated that he reviewed the early research again and found that the cave may have actually been on the Makalawena boundary, rather than close to Pu'u Kuili.

Bobby Camara indicated that he did not have a problem with the north side alignment for the road provided it is based on knowledge of the facts, but with new information, He noted that a case can be made for either alignment or even an option to not build a road at all. Chris Yuen suggested that we could talk about it again; let the archaeologists do a careful transect. Camara asked if the road would be built on state land. Staff responded that the alignment as shown on the conceptual plan included a 60 foot easement on private lands.

The State Parks's archaeologist will consult with the State Historic Preservation Division to determine level of survey required. George Atta noted that we may need to have the State Archaeologist Alan Carpenter work with a private archaeologist, however the State Archaeologist would supervise. The private archaeologist would be paid for by W.B. Kukio.

Park Facility Location

The discussion continued on the location of the day use area and facilities. George suggested that the day use area be located closer to the shoreline, rather than far back from the shoreline. Bobby Camara suggested that the parking could be located back from the shoreline, and the public would walk from the mauka area. He noted that a really good design could encourage the walk. Other members felt that everyone should walk to the shoreline. The location of the Ala Kahakai was noted along the shoreline.

The Americans with Disabilities Act (ADA) requirements were also discussed. Accessibility must be provided, even into the ocean. Accessible parking, paths, picnic tables and camp sites along with the comfort station will be needed. Universal access - essentially the same life experience for all is required under the law and a federal consent decree that the State must comply with. In fact, Kekaha Kai State Park was cited because the State did not have parking near the beach. It was also noted that a distance of 800 feet is actually too long a distance for the disabled to travel to get to a facility or the beach. Members noted that a drop off area would be of assistance to the disabled, however the State would need enforcement to prevent people parking in the drop off area.

The topography of the areas considered for park facilities was discussed noting that some sites are flatter (not in slope) and that these areas would be better suited for parking, camping, and picnic facilities. It was also suggested that day use facilities be moved toward Kua Bay, while the camping could be moved to the south side of the area. It was noted that the developer has committed to provide water in the day use area, and if the camping and the day use areas are separated, a second comfort station would be needed.

The type of toilet facilities was also discussed. Dan Quinn pointed out that composting toilets are a maintenance problem. Other options include the use of a leach field or a holding tank. It was noted that the developer has made the commitment to hook up the comfort station to their sewage treatment facility.

Recommendations

Regarding the alignment of the Manini'owali-Kukio access road, the Task Force indicated its preference was to leave the access road alignment on the north side of Pu'u Kuili, as shown in the park conceptual plan, approved by the Board of Land and Natural Resources.

In reviewing the topography, and the archaeological sites, it was noted that a day use area with a 50 car parking area and a comfort station could be placed between archaeological sites. The actual placement would need to be refined when the archaeological survey is completed.

Camping should be separated from the day use area. The day use area should be moved closer to the ocean - a shorter walk of 300 feet rather than a walk of 800 feet to the shore was preferred.

Group 70 International will prepare alternative concepts for each area showing the park facilities, and will considering the Task Force discussion and incorporate Task Force comments made at this meeting.

Access to Makalawena

During the discussion, Task Force members also noted that they had not had the opportunity to discuss Makalawena, and wondered about Kamehameha Schools' plans for this area. Some members noted that campers and hikers walking into Awake'e would question why others are allowed to drive into Makalawena to camp. Allowing some to drive in would change the style of camping at Awake'e. Members wondered if Kamehameha Schools would want to develop an access road within their property. Members also expressed concern about parking at Awake'e and damage to anchialine ponds there. Camping near the ponds and the presence of dogs impacts the area. Sherrie Samuels indicated that she had spoken with Kamehameha School representative Jeff Melrose and that the group could invite Kamehameha School representatives to discuss their plans at a future meeting.

Adopt-a-Park Group

The meeting concluded with a report on efforts to establish an adopt-a-park group. Deborah Chang from the National Park Service's Rivers Trails and Conservation Assistance (RTCA) program discussed RTCA assistance program. RTCA facilitates the establishment of the group and group leadership comes from the community. State Parks requested assistance in August, and RTCA approved the request. Two RTCA staff members, Deborah and Helen Felding, will provide this assistance. The first group meeting is scheduled for October 13, 2001, from 9:00 am to 1:00 pm. An invitation to join the group will be published in the newspaper.

Sherrie Samuels

KEKAHA KAI STATE PARK Task Force Meeting

Friday, March 1, 2002
6:00 pm - 8:00 pm
at Natural Energy Laboratory of Hawaii Authority
Conference Room

AGENDA

Pule

Approval of Task Force Meeting Minutes of
September 29, 2001

Status of Hui Laulima O Kekaha Kai
(aka Kekaha Kai Adopt-a-Park)

Board of Land and Natural Resources Delegation of Authority to Approve
Cost Adjustments to the Chairperson of the Department of Land and
Natural Resources (Approved January 11, 2002)

Status and Costs for Archaeological Inventory Survey

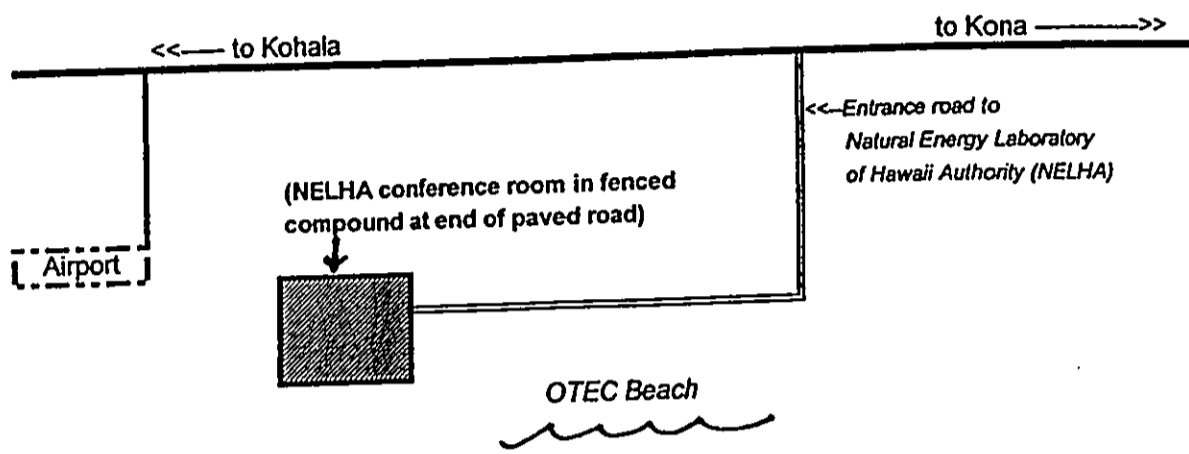
Review of Preliminary Draft Alternatives for the Manini'owali-Kukio and
Awake'e Sections

Topics for Future Task Force Meeting Agenda

- Review of Task Force Position on Paving the Road to Mahai'ula
- Review of Task Force Position on Commercial Uses within the Park
focusing on Film Permits
- Other Topics

Pule

Adjournment



Meeting Notes

Kekaha Kai State Park Task Force

March 1, 2002

Note: The following notes cover some of the issues and concerns expressed by Task Force members, but lack detail because the tape recorder used for this meeting produced considerable background hum making it impossible to hear Task Force member statements. We have done our best to summarize the key issues discussed.

TASK FORCE MEMBERS PRESENT:

Aric Arakaki, Ala Kahakai National Historic Trail
George Atta, Group 70 International, Inc.
Christine Bean, W.B. Kukio
Douglas Blake, Conservation Council of Hawaii
Bobby Camara
Carl A. Carlson
Deborah L. Chang
Annie K. Coelho
Virginia Isbell
James Leonard, PBR Hawaii
George K Kahananui, Sr.
Marilyn Killeri, Hawaii Island Film Office
Teri Leicher
Ruby McDonald, Office of Hawaiian Affairs
Jeff Melrose, The Kamehameha Schools
Milton Morinaga, W.B. Kukio
Janice Palma-Glennie, Sierra Club
Cindi Punihaole
Robert Punihaole
Noelie Rodriguez
Sherrie Samuels, State Parks Planning Branch
Hannah Kihalani Springer
Tom Witten, PBR Hawaii
Chris Yuen, County of Hawaii Planning Director

MEETING PURPOSE. The purpose of the meeting was to review alternative development plans for the Awake'e, Kahoi'awa and Manini'owali-Kuki'o sections of the park. Copies of the alternatives had been sent to Task Force members prior to the meeting. The meeting began with pule, followed by introductions by each member attending.

INTRODUCTIONS. Sherrie Samuels introduced Mr. Aric Arakaki, recently hired by the National Park Service National Trails Program to work on the Ala Kahakai. Aric indicated that he is new on the job and is getting to meet community groups.

MINUTES OF THE SEPTEMBER 29, 2001 MEETING. Members noted that the Task Force is now a larger group than it was in 1994-1997 and some members may not have been present at the meeting for which the minutes have been prepared. No corrections were noted and the minutes were adopted.

HUI LAULIMA O KEKAHA KAI. Deborah Chang reported that Hui Laulima members have decided to form a 501-3c organization, and have selected the name, "Hui Laulima o Kekaha Kai". The vision and mission statement was read. The Hui's intent is to malama the area's special natural and cultural resources for future generations.

The Hui is planning to prepare and adopt by-laws, elect officers and directors and hold its first official meeting on April 20, 2002. Deborah told the group that everyone is welcome to join the Hui. A sign up sheet was provided. The Hui's first service project is planned for March 16, at 7:30 am at Manini'owali and is being undertaken in conjunction with the Outdoor Circle's island-wide Malama 'Aina Day.

BOARD OF LAND AND NATURAL RESOURCES ACTION. Sherrie Samuels reported that during the past four months, it was determined that the archaeological inventory survey was going to cost more than anticipated as well as require more manpower in order to quickly complete the work. The initial approval by the Board allowed \$150,000 for planning. Group 70 had set aside \$ 30,000 of that amount for archaeology, However, the total cost for the archaeology is going to be \$ 118,000, less the \$30,000 that was already budgeted under the original contract.

On January 11, 2002, State Parks went back to the Board and asked them to delegate their authority to the Chairperson to make this and future adjustments in amounts that are being spent from the \$2.5 million that the Manini'owali development is obligated to use to improve the Manini'owali-Kuki'o Section of the park.

As of March 2, 2002, a contract addendum between WB Kukio, Group 70 International, Inc. and the Department of Land and Natural Resources has been signed to hire Tom Dye and Associates to undertake the archaeological inventory survey. Tom Dye will also hire archaeologist Maurice "Mo" Majors to work with State Parks' archaeologist Alan Carpenter. Task Force members were invited to visit the archaeologists while they are on site to learn about their work. George Atta noted that although the all areas will be covered during the survey, the focus of the detailed survey will be the areas that will be developed for park use, and the areas along planned pedestrian and roadway corridors.

REVIEW OF DRAFT ALTERNATIVES FOR THE AWAKE'E, KAHO'IAWA, AND MANINI'OWALI-KUKI'O SECTIONS.

George Atta stated that the purpose of reviewing the alternatives is to develop a specific site plan for each section. The alternatives will be described in the EIS along with the proposed park development plan. An EIS Preparation Notice is being prepared and will be published for review and comment.

George noted that the alternatives are not fixed in that elements can be selected from different alternatives to create the preferred site development plan. George indicated that there are two alternative plans for Awakee, two for Kaho'iawa, and three alternatives for Manini'owali-Kuki'o. George described the general assumptions and guidelines for the park planning and the alternative concepts for each park area. Task Force members reviewed and discussed the alternatives, raised various issues and concerns, and requested adjustments in the location of different facilities shown on the plans.

Awake'e Issues and Conclusions.

Access Road. The need for access, access for permitted campers, and ADA access was discussed along with the need for, and desirability of, a turn-around at the end of the road. One member thought it unnecessary to have a road into Awake'e. The Kamehameha Schools long-term plans for Makalawaena include the development of an access road and support facilities within their property was also addressed.

Kapoikai. The need for an overlook as shown on the plan was questioned along with the benefits of having an overlook. It was noted that Task Force decisions must be mindful of other projects such as those working with The Kamehameha Schools. The need to control dogs brought into the camping area was also noted.

Archaeological Sites. State Parks' policy for archaeological sites is that they will try to preserve 100% of the sites. Earlier archaeological surveys did not have GPS, so the locations are approximate. However, the current work will use GPS and will, therefore, be precise.

It was noted that even now we know where the sites are and we know that there is sufficient space between the sites to adjust the planned facility locations. Also, all the roads shown in these sections of the park are existing roads, except for one segment, so we know that the roads will not have any additional impact on archaeological sites. The exact location of other facilities will change with the identification and mapping of the archaeological sites.

Coconut Trees. It was noted that coconut trees are desired for cultural and aesthetic reasons, however, liability is a concern and the trees must be trimmed periodically.

Access by Permit. The plan proposes that park users with camping permits be allowed to drive down to designated parking areas near the Awake'e camp sites.

Anchialine Ponds. A Task Force member noted that dogs are a problem, and they should be kept away from the ponds. Others suggested signage to minimize the problem. They noted that the ponds are important and buffers should be placed around the ponds. On the other hand, members noted that the ponds are natural features that can be visited by the park user. Management of the ponds should be based on the pond resources.

Enforcement. Enforcement is a basic problem. More staff and a presence is needed.

Alternative Plan Conclusions for Awake'e.

- Access to Makalawena will be maintained until Kamehameha Schools develops their own access.
- The access road should not go through the camp area.
- Anchialine ponds should be avoided.
- Cultural sites should be avoided.
- The overlook to Kapoikai should be re-assessed.
- Camping/day use should be in the area near the sandy beach section, away from the cluster of archaeology sites.

Kaho'iawa Issues and Conclusions.

Kaho'iawa, although not a separate section of the park, is being addressed separately because of the existing road and fishing that occurs in this area.

Pu'u Kuili. Currently, there is a jeep road that goes up to the summit. The road will be closed to vehicles but will continue as a pedestrian route. A loop trail is planned, so the park visitor can go up one way, but come down in another. The loop trail concept and alignment is subject to adjustment if the archaeological inventory survey identifies sensitive areas. Members suggested that we leave the option in the DEIS for further consideration.

Fishing. Fishermen generally seem to use the Awake'e side rather than the Manini'owali side to access fishing sites at Kaho'iawa. While the entire coast is used for fishing, there seems to be a focus on the Kaho'iawa area. Members suggested providing parking (8 stalls) and a reasonable access route, but expressed concern about whether or not hikers would use the fishermen's parking. Twenty-four hour access for fishermen was discussed. In general, the group felt that fishermen use of the area should be better understood. Park management and maintenance should address this use.

Gates. The opening and closing of gates, roads, signage, and park operations need to be addressed in the development plan and EIS.

Alternative Plan Conclusions for Kaho'iawa. The alternative showing the fishing area on the Awake'e side of Pu'u Kuili was recommended. Alignment of the road along the tree line of Pu'u Kuili was recommended. Archaeology and topography will determine the precise road location, drop-off area and pedestrian trail alignment.

Manini'owali-Kuki'o Issues and Conclusions.

Camping Amenities. Camping at Manini'owali will have more amenities than the wilderness camp sites at Awake'e. At Manini'owali, a substrate appropriate for a camp site should be provided because most areas are lava. While gravel is unacceptable, camping on the sand is acceptable. Members suggested that we consider two camp sites, but definitely include the sandy area by the beach. Members also indicated that they do not want major site alterations to accommodate camp sites.

Comfort Station. Members suggested that the comfort station be located on the bulldozed area that is currently used for parking and located between the day use area and the camping area.

Drop Off Parking. The parking area should be sited away from the beach (approximately 400 feet from the beach) and not be visible from the beach. A drop-off area with handicapped parking at the comfort station (closer to the beach) should be included. The expansion area can go mauka or south depending on the location of archaeological sites. There was no strong opinion about joining or separating parking for campers and day users. A drop off near camp sites for campers can be provided.

ADA Access. There are two options for ADA access. One option is to go down the existing roadway into the sandy area near the anchialine pond. The second option is to provide a ramp/path makai of the proposed comfort station down a series of ledges to the sand.

Ala Kahakai. The Ala Kahakai should be designated generally along the existing coastal trail sections through Kakapa and Manini'owali. Trail alignment should generally follow the shoreline and minimize impact to archaeological sites, and tie into the fishing area trails at Kaho'iawa.

Anchialine Ponds. The plan should indicate that the pond complex will be restored.

Access from the Manini'owali Development. There are four pedestrian access paths to Manini'owali-Kuki'o section of the park from the adjacent Manini'owali development. The connecting trails should be incorporated into the parks overall trail plan. Vehicular access will come from the Queen Ka'ahumanu Highway at the intersection with the Veteran's Cemetery access road. The access road should be aligned to avoid archaeological sites and be planned to fit into the natural terrain of the site.

Alternative Plan Conclusions for Manini'owali-Kuki'o.

- Show camping in the existing sandy area (approximately 3 camps/6 tent sites) near the beach (aerial photograph referenced).
- Designate the parking area at the mid-way point, a site \pm 400 feet from the shoreline.

- Clarify coastal trail through Kakapa along existing trails.
- Indicate restoration of anchialine ponds.
- Identify ADA access to beach.
- Provide drop-off areas at comfort station and camping areas.

Future Task Force Meetings.

Although a specific date for the next meeting could not be set, it was decided that the archaeological findings and the revised recommended site plans should be presented to the Task Force prior to the submission and distribution of the Draft EIS for review and comment.

Other Related Questions:

Balance of the \$2.5 million. One Task Force member asked if there would be any money left over that could be spent elsewhere in the park. The member noted that given the tight economic times, it might be desirable to be able to use the balance. However, it was generally thought that, based on the preliminary conceptual plan and related development cost estimates, it would be very unlikely that there would be any monies available for other areas.

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KEKAHA KAI STATE PARK Task Force Meeting

Saturday, June 22, 2002
9:00 am - Noon
at Mahai'ula, at the Old Magoon House

AGENDA

Pule

Hui Lailima O Kekaha Kai Report

Archaeological Inventory Survey

Review of Draft Development Plans for the Manini'owali-Kuki'o and
Awake'e Sections

Review of Task Force Position on Paving the Road to Mahai'ula

Pule

Adjournment

**KEKAHA KAI STATE PARK
ADVISORY TASK FORCE
FINAL RECOMMENDATIONS**

This summary report presents the findings and recommendations of the community-based Task Force formed to advise the Department of Land and Natural Resources on the preparation of the Kekaha Kai State Park (formerly Kona Coast State Park) Conceptual Plan and the Phase I Development Plan for the Mahai'ula section of the park.

TASK FORCE APPROACH AND PROCESS

The park planning process began in September 1994 with a community meeting to introduce the park concept, followed by a second meeting in April 1995 to present preliminary alternative plans based on different levels of use within the three ahupua'a-like park sections. Community sentiment was that planning should only accommodate the current level of use and that the plans should be developed using this level as a base. Management of existing park uses, protection of cultural and natural resources, and minimum improvements for health and safety were thought to be essential. The community recommended convening an advisory task force to fine tune the conceptual plan and to prepare the phase I development plan for the Mahai'ula section.

A list of community organizations was prepared and organizations were selected to provide a broad representation of park users and interests. In addition, owners of land abutting the park were invited to join the Task Force. Official Task Force member organizations numbered 16 plus 4 ex-officio members representing government agencies with an interest in the park and 4 DLNR divisions serving as resource agencies, capable of providing resource information and guidance on management practices. Each organization was requested to provide two representatives. Official members included 4 adjacent landowners, 3 Hawaiian/cultural groups, 2 environmental groups, 3 recreation groups, 2 commercial/recreation groups and 2 families with significant knowledge of and ties to the Kekaha Region - the Kaelemakule Family and the family of Hannah Kihalani Springer. Appendix A lists Task Force member organizations and representatives.

The Task Force held five meetings over a period of eight months and during that period, worked with the project consultant and State Parks staff to refine the overall conceptual plan for the park and prepare a development plan for the Mahai'ula section. Within the Task Force, separate committees were also convened to address cultural resources, marine resources and the proposed visitor orientation center at the park entrance. A separate committee was convened to address the immediate management of kayak use at the park.

The Task Force presented its findings and recommendations at a third community meeting in May 1996, where community members commended the Task Force for its work and commented on natural and cultural resource interpretation and management at the park, the park name, compliance with the Americans with Disabilities Act (ADA), commercial activity, camping, and kayaks. The conceptual plan and the Mahai'ula Section (phase 1) development plan were then further refined by the Task Force to address the concerns expressed.

Task Force meetings were facilitated by The Judiciary's Center for Alternative Dispute Resolution, and a group memory was prepared for each meeting and distributed to the Task Force member organizations and representatives.

COMMUNITY INPUT CONSIDERED BY THE TASK FORCE

Community members expressed the following concerns, observations, and comments at the initial public information meetings.

The Park, in general:

- Resource sustainability is important. The existing park should be maintained and care for, before increasing access or planning new facilities. The State needs to consider the cost to pay for and maintain existing facilities.
- Park development should begin at the lowest intensity of use, then phase into higher intensity uses, if necessary. Park use is already too high and is a management issue regardless of proposed use intensity.
- Increased access leads to increased useage and greater impacts. Access, therefore, needs to be controlled and the park policed to minimize vandalism. Caretakers are needed on a 24 hour basis. Public health and safety is also important; but minimum improvement for health and safety is all that should be provided.
- Cultural and natural resource baseline studies should be undertaken, while recognizing that the resources have already been degraded. Resource management plans need to be developed and need to be sustainable. A konohiki concept with certain kapu times to protect resources is one way to manage the resources. A Marine Resources Management Plan should be prepared.
- Cultural Resources include current practices, the use of marine resources, and the preservation of view planes to the ocean. A Comprehensive Cultural Resources Management Plan should be prepared and a konohiki concept used to manage cultural resources.

- The park should serve local residents and island visitors. Local was defined as people who understand the habits and attitudes that the community shares. The park should be accessible to locals.

Mahai'ula: Existing parking needs to be managed. Composting lua are the only improvements needed. Camping for fishermen should be provided, but no cabins. The Magoon House should be considered historic and should be public, used for interpretive programs, but not as a private residence for a caretaker. A konohiki should be provided.

Makalawena: If required, land should be purchased. An existing mauka-makai trail is already available to the public due to historic use. (Note: The Department of the Attorney General has determined that the State of Hawaii owns the mauka-makai trail known as the Makalawena-Akahipu'u Trail as well as the lateral coastal trail known as the Ala Kahakai.)

Awake'e: Awake'e, today, is used primarily for subsistence fishing. Access should be resource driven, not people driven. Management of the area is an issue. Primitive camping for fishermen is desirable. A konohiki with kapu system for resource management should be considered.

Manini'owali/Kuki'o: Camping for fishermen is desired as well as a konohiki for resource management.

TASK FORCE VISION AND RECOMMENDATIONS

The Task Force responded to community concerns by developing a vision for the park and specific recommendations for park resources, uses and support facilities within the Mahai'ula section of the park. The vision and summary of recommendations is taken from the Task Force's group memory recorded for each meeting and from committee recommendations on aquatic resources, cultural resources and a visitor orientation center, presented at the May 1996 public information meeting.

VISION FOR THE PARK

Kekaha Kai State Park is a wilderness park, designed and managed to promote the long term sustainable use of its natural and cultural resources, and provide recreational opportunities for community residents and island visitors. Open natural spaces and viewplanes are preserved and enhanced. Cultural resources are protected and interpreted. Modern amenities, facilities and conveniences are limited, and access is generally unimproved. The level of park use is managed to sustain resources, yet fishermen, swimmers and surfers, kayakers, hikers, sunbathers, picnickers are well served.

A spirit of graciousness characteristic of early Kona community life is found at Kekaha Kai representing the generosity of a place of limited resources. Kekaha Kai State Park is also a place for renewal of the spirit and soul, a place to re-establish a connection to the natural world.

Each of the three park sections provides different experiences. The Mahai'ula Section, the first to be developed, provides a visitor center at its entrance, a marine and cultural educational center near the shoreline, sandy beaches, picnicking, limited camping, hiking, fishing, surfing, and ocean access, as well as natural and cultural resource interpretation. Park visitors easily access the Ala Kahakai.

The Awake'e Section north of the ahupua'a of Makalawena, is a wilderness campsite reached on foot by walking the Ala Kahakai. Facilities are minimal, consisting of a composting toilet and refuse containers. Campsites are primitive serving hikers and fishermen. Natural and cultural resource interpretation is provided through signage, trails and an overlook provided to view Kapoikai, a large wetland located within Makalawena.

The Manini'owali-Kuki'o Section, north of Pu'u Kuili, reached by a 2 wheel drive road to Kua Bay provides day use beach areas with picnic facilities, restrooms, landscaping and parking. Limited camping sites are provided. Hikers climbing Pu'u Kuili are rewarded with panoramic views of the Kona Coast, and are provided easy access to the Ala Kahakai.

VISION FOR THE MAHA'ULA SECTION

At the Mahai'ula Section park entrance, a Visitor Orientation Center introduces the park visitor to Kona's history, and its natural and cultural resources through interpretative displays at a museum where artifacts are exhibited. An indoor theatre offers interpretation and educational programs, while an outdoor amphitheater provides open air day and evening programs. A gift shop sells natural and cultural history-related interpretive and educational publications, maps, and posters. A comfort station, refreshment stand and recreational equipment rentals are available. Outside the Center, sweeping views of Kona's makai and mauka regions welcome the visitor to the Kekaha lands.

Visitors drive to the shoreline on a 2 wheel-drive two lane road highlighted by viewpoints and interpretive signs explaining the natural and cultural history of the region. Hikers using the mauka-makai trail are also provided a small parking area located mid-way along this road at the mauka-makai trail crossing.

At the shoreline, visitors step back in time to a period and state of being reminiscent of the period between 1900 and 1940, a more gracious time of family outings and experiences that bring families back together, back to the land they came from, to

commune with ocean, wind and shoreline elements. Visitors may even recall the familiar song "Mahai'ula" composed by Helen Desha Beamer, its verses reflecting that graciousness of spirit associated with Mahai'ula. Signs identifying ahupua'a and place names are provided.

A parking area is provided at the junction of the main park access road and the Educational Center road where a central information kiosk informs visitors about sites within the park, its natural and cultural history, park regulations and safety. Park brochures are available and visitors can choose to visit the beach areas at Kaelehuluhulu and along the Bay, the Educational Center or even hike the Ala Kahakai north to Makalawena, Awake'e, Manini'owali and Kuki'o to visit Kua Bay.

At Kaelehuluhulu, a day use area, park visitors are provided parking, picnic area improvements, and composting toilet facilities. Here, anchialine pools have been cleaned and restored and interpretative signs describe all aspects of pool life. Nearby, to the south, interpretive signs explain the process of drying and salting fish on concrete platforms - an activity that supported early Mahai'ula residents.

At Kaelehuluhulu, kayakers are also provided a designated launch area, separating their activities from beach and near-shore recreational activities. No motorized marine vessels are allowed in the Bay, in keeping with the community desire to better manage the Bay's resources and allow park visitors to experience an earlier, simpler way of life.

A short walk along the beach, or along the Educational Center road to the north, brings the visitor to the 1939 Magoon Home, now restored, and used by the community as an Educational Center. Here, low impact marine and ocean resource educational programs and exhibits teach and demonstrate the interrelationships between the plants and animals of Mahai'ula Bay, the adjacent anchialine pools and man. Educational and interpretive exhibits explain life in this remote, hot and dry, yet self-sustaining, region.

Next door to the Activity Center, the restored 19th Century Kaelemakule Family Home tells the story of an earlier period. Family members and community docents teach and demonstrate family life and history at this site. Exhibits are provided and docents also present *mo'olelo* (stories, traditions, and legends) to provide an understanding of this place and *mo'okuauhau* (genealogical succession) to provide an understanding of its people. The ponds, windmill and water pumps, water tanks, generator house, warehouse, bath and toilet structures have been restored and are interpreted. *Maiapilo, kou, milo, niu, hinahina, and loulou* plantings, and a dryland botanical garden nearby, complete the cultural picture.

A limited number of camping sites for families, fishermen, Ala Kahakai hikers, coastal kayakers and other recreationists are located near the central Mahai'ula beach. Convenient, composting toilets are provided. A resident Park Ambassador

(park technician) manages the park, interprets its natural, cultural and recreational resources, and conducts educational programs.

TASK FORCE FINDINGS AND RECOMMENDATIONS

Task Force committees were convened to develop recommendations for the management of the cultural and the marine resources, the development of the Visitor Information Center, and management of kayak use within the park. The first three committee findings and recommendations were presented at a public information meeting on May 6, 1996. The Kayak Committee findings were presented to the public in November 1996. Although summarized, each committee's topics and the text of their recommendations have been used to insure that the intent is not lost.

Cultural Resources Committee

Archival Resources: The committee found that there were no archaeological surveys, bibliographies or oral histories for the ahupua'a of Mahai'ula and Kaulana. They noted that Kepa Maly has done extensive interpretation of the traditions of Kekaha, drawing on the writings of Ka'elemakule as they appeared in the "Hoku o Hawaii". The committee recommended that the *mo'olelo* (stories, traditions and legends) and the *mo'okuauhau* (genealogical succession) be recorded and an archaeological survey with complimentary archival review and oral history be completed as part of the park development.

Cultural Landscapes: The committee found that the clusters of sites, including the Ka'elemakule-Magoon homes by the sea, are not the only components of the cultural landscape. The mauka-makai trails, the biogeographic mosaic of the uplands, including Hualalai itself, the ahupua'a of Kekaha, the lavascape - all have cultural value. They also noted that the older stone structures, the Kaelemakule and Magoon homes and the existing park features represent three distinct cultural periods.

The committee recommended that interpretation be inclusive of the entire ahupua'a which comprise the park. The links between clouds, watersheds, lava scape, basal springs, the ocean, the relationships between the *wao akua* and the *wao kanaka* should be recongnized and presented, and the *wahi pana* identified. Presentation may include brochures, signage and educational materials and should be ahupua'a based.

The committee felt that with regard to the contemporary cultural landscape, due to its proximity to the Ka'upulehu, more intensive activity should take place at the Manini'owali section of the park. The Awake'e section would have a "wilder" character. The Mahai'ula/Kaulana section would carry a moderate activity load.

Landscaping: The committee noted that *maiapilo* is the most prevalent native plant species on the 1801 lava plain and the *kou*, *milo*, and *niu*, Polynesian introductions, represent early landscaping tradition well suited to the Kekaha environment. Fountain grass and *kiawe* have become naturalized, while *hinahina* and *naupaka* are present along the shoreline. Ornamentals and weeds grow around the Kaelemakule/Magoon homes and near Mahai'ula parking areas, although there is no irrigation at these sites at this time.

The committee recommended that in landscaping, *maiapilo* be favored, and the Polynesian introductions be encouraged and enhanced (e.g., replacement of the senescent *niu*). They suggested that plant resources be utilized in a culturally compatible manner, for example, in the event of clearing and maintenance, wood and fiber might be offered to practitioners, in accordance with protocol. They recommended that fountain grass be controlled by mechanical methods, and if this is not possible, fusillade or a similarly benign herbicide should be used. They recommended that *kiawe* should be selectively thinned and manicured to offer shelter from the sun. Throughout, irrigation should be minimal.

Water: The committee found that the land of Kekaha was described as "*wai 'ole*", "without water", a description that informs us of the character of the place, and that the *kama* (child or person) of this place loved, and do love Kekaha, speaks to the character of the people. The *wai 'opae* and the *loko wai* were governors of the carrying capacity of Kekaha's coastal hamlets. The committee also noted, however, that water systems are costly both in terms of money and the approvals required to develop them, and as discussed under landscaping, irrigation should be minimal. The committee, therefore, recommended that water systems be developed prudently, and suggested that "less may be better".

Marine Resources: The committee found that marine resources are also cultural resources, and that traditional resource management was affected through *kapu* with the goal of a sustained harvest of resources. The committee recommended that the marine resources should be studied and interpreted with reference to both their biological and their cultural values. They recommended that the management goal should be of a fisheries rather than a conservation nature and that management should be active and directed towards keeping resource populations self-sustaining.

Museum: The committee noted that materials excavated from archaeological sites are generally removed from the sites, studied, and warehoused off-site. There are materials from such sites at Kekaha and beyond that are so treated, yet there are no repositories in Kona for materials collected from Kona. The committee recommended that a repository, perhaps a museum, be included in the park plan and suggested that funding for a facility could be shared between public and private sectors.

Placenames and Language: The committee found that the Hawaiian language is specific and descriptive, and that its use enriches us and informs us of older insights which retain cultural validity. They also noted that there is a tremendous loss and misuse of both the Hawaiian place names and the Hawaiian language. The committee recommended that because the park is located in the Kekaha region and the *mo'olelo* and *mo'okuauhau* of the ahupua'a are the accounts and genealogies of the Kekaha lands, the park name, as perhaps the greatest interpretive tool, should include the term, "Kekaha". They also recommended that the specific place names and the *mo'olelo* associated with them should be recorded and used.

Commercial Recreational Vendors: The committee found the current commercial-free environment desirable and noted the inherent contradictions between cultural and commercial practices. The committee anticipated a strong lobby from kayak and recreational vendors and potential jurisdictional and enforcement difficulties if vendors are permitted on-site.

The committee had two recommendations. Their first preference was to have commercial activity focused at Ka'upulehu, outside the park, to provide a variety of commercial opportunities offered by other developments. Their second preference was to allow limited vending at the Visitor Orientation Center located at the park entrance at the Queen Ka'ahumanu Highway.

Public Land: The committee noted that community groups, including Ka Lahui Hawaii and the Kona Hawaiian Civic Club have testified in favor of a moratorium on the trade, sale, lease or development of public land until the question of *Hawai'i maoli* jurisdiction is answered. The committee noted that park development represents a lavish expenditure of funds during a time of financial crisis. The committee recommended that these concerns be addressed.

Aquatic Resources Committee

Management of Mahai'ula Bay Marine Resources: The committee found that currently there are no management plans in force and recommended that a Fisheries Management Area be established and access to this area be limited to non-motorized vessels. The committee suggested that within the Fisheries Management Area, that fishing be allowed only by line and pole, or by throw net or other traditional fishing techniques, such as the Hawaiian Sling. No laynet fishing should be allowed, other than the traditional practice of hukilau for group educational purposes only.

Marine Resources and Educational Programs: The committee found that Mahai'ula Bay is representative of the Kona Coast marine flora and fauna, characterized by three types of marine community regions, the inshore high surge shallow water community at depths under 5 feet, the moderate surge community found at depths of -10 to -30 feet, and the deep water low surge community at depths of -70 to -90 feet.

In the high surge areas, the substrate consists of algae-covered basalt pavement and rubble, coralline rubble and sand patches. Low growing coral, mostly *Pocillopora meandrina*, are sparsely settled, with *P. damicornis* occurring inshore where fresh water seeps into the bay. In moderate surge areas, the substrate consists of basalt pavement and rubble covered to a large degree by sand and algae. Of primary importance are the massive colonies of *Porites lobata*, some over 12 feet wide, which occur regularly at depths of -10 feet. *P. lobata* and *P. compressa* cover approximately 10-25 percent of the hard substrate. The deeper water low surge community is characterized by abundant growth of hermatypic corals including *Prorites lobata*, *P. compressa*, and *Pocillopora meandrina*.

Hawaii's near shore fish species are well represented throughout the bay. Fishes most commonly encountered are herbivorous, including surgeonfishes, parrotfishes, and certain damselfishes. Other fishes include triggerfishes, snappers, goatfishes, pufferfishes, butterflyfishes, and baitfishes. Invertebrate species (exclusive of corals) are also well represented, and include *Echinothrix calamaris*, *Tripneustes gratilla*, *Echinometra mathaei*, and *Chondrocidaris gigantea*, plus sea cucumbers, *Holothuria atra*.

Anchialine ponds, unique ecosystems found in very limited numbers in the world, exist between Mahai'ula and Makole'a Point. These systems often support unusual biota, with many species not found elsewhere. Between 6 and 8 ponds have been described in this area, with several species considered to be endemic. The hypogeal shrimp, *Callismata pholidota*, *Procaris hawaiiiana*, and *Antecaridina lauensis*, the epigeal shrimp *Palaemnella brnsi*, the mollusc *Nertilia hawaiiensis* and the moray eel *Gymnothorax hilonis* are biota considered rare and known only from the anchialine habitat. *Halocaridina ruba* ('opae ula), another hypogeal shrimp is associated with Hawaiian traditions.

The committee recommended that coral monitoring stations be set up within Mahai'ula Bay. Within the education or activity center, static displays depicting conspicuous marine biota should be set up to explain the importance of the coral reef ecosystem. The committee recommended that a mullet release program be established and the the State work with the community on the catch and release program and encourage reporting of tagged fish caught to provide information on fish population dynamics. The committee also recommended that an anchialine pool monitoring and recovery program be established with guidelines.

The committee recommended that guidelines be prepared for managing the use of the Mahai'ula area for marine education, including the number of groups permitted each day, the size of the group, the facility use and need, the number and type of programs to be offered. The committee suggested that limitations be set, but that growth in programs and facilities for marine education be allowed.

Day Use Moorings: The committee found that *aku koa* and *'opelu koa* (fishing

grounds) are known to exist within and offshore of Mahai'ula Bay. The *aku koa* is known locally as the "North Grounds". There are about 4 such *aku koa* within the vicinity of Mahai'ula. *Aku*, and *'opelu*, congregate at these sites. The precise location of the proposed mooring pin sites has not been determined or plotted on a map to show the mooring pin in relationship to the location of *koa*. Placement of day use mooring pins may disturb these sites.

The committee recommended that the precise locations of the proposed day use moorings fronting the Kona Coast State Park, and the location of the *aku koa* and *'opelu koa*, be determined, and if any impact to *koa* can be anticipated, day use mooring locations should be adjusted to avoid *aku koa* and *'opelu koa*. The committee suggested that the use of Mahai'ula Bay and the Park coastline be surveyed and studied to determine the present use by nearshore and coastal fishermen. The committee suggested that the installation of the Mahai'ula day use mooring be delayed until there is a need for it, and that day use moorings at Makalawena and at Kua Bay be installed to protect the reef at each of these sites since boaters frequently anchor at these locations.

Use of Mahai'ula Bay. The committee found that Mahai'ula Bay is used for family picnicking, swimming, fishing, sun bathing, and some surfing, however, formal use counts are not known to exist. Historically, Mahai'ula Bay was used by residents of the adjacent village clusters for food gathering. Residents fished for near shore fish during the summer when fish were plentiful. The committee recommended that existing uses of Mahai'ula be surveyed, and that the highest priority use should be a historical, cultural and educational use.

Commercial Recreational Vendors: The committee anticipated that kayak and recreational equipment rentals will be popular with park visitors, and that on-site food and beverage concessions will require additional maintenance and rubbish management, and may generate greater visitor traffic. The committee recommended that commercial recreational vendors or a concessionaire should only be allowed at the Visitor Orientation Center located at the park entrance at Queen Ka'ahumanu Highway.

Marine Educational Programs: The committee found that marine and ocean resource education opportunities can benefit island residents and visitors as well as the nearshore ecosystems. Appreciation for and understanding of the interrelationships between plants and animals of Mahai'ula Bay and adjacent anchialine pools will be carried into other coastal settings by the learners. The committee also noted, however, that coral reef and shoreline communities can be quickly impacted by human activity.

The committee, therefore, recommended that management guidelines be prepared addressing the number of educational groups, time allowed on site, number of persons per visit, number of persons per day, dispersion of visitors within the site,

and other logistical matters. For example, one busload of 60 students could be divided into three groups of 20 students, each group participating in activities at separate locations within the site. The committee recognized that low impact marine education program facilities will be needed. Facilities could include one or two wet tables for temporary holding, and storage for educational materials.

Camping: The committee noted that island families enjoy camping along the coastline and that kayak users are known to paddle from area to area and to put in at different beaches along the Kona coast. They also noted, however, that heavily used areas, such as Kua Bay, are becoming degraded and a potential health problem since there are no restroom facilities. They recommended that camping facilities be provided in the future as needed, in accordance with available funding and staff.

Carrying Capacity: The committee found that establishing a "carrying capacity" is not an exact science, and recommended researching carrying capacity recommendations used at other managed sites. They suggested that a carrying capacity tool be developed to be applied proactively and flexibly (meaning that it can be lower or increased) as required by use and environmental signals. They recommended establishing an opening, limited, carrying capacity for the Park, in general, that will not impact the park environment or the long-term sustainability of the park resources.

Kikaua Point and Kuki'o Bay (Uluweuweu Bay): The committee noted that the park extends to Kuki'o Bay and includes Kikaua Point, and that Kuki'o Bay is an important cultural and biological resource because it is known to provide nursery habitat for marine species. Kikaua Point is also sometimes fished by setting nets. Kuki'o Bay is also located outside the park boundaries and remains unprotected. The committee noted that with the opening of the Four Seasons resort and in the future, the Huehue Ranch Associates project, public access to these areas will increase, and marine resources and habitat at Kikaua Point and Kuki'o Bay will be increasingly impacted.

The committee therefore suggested that the Main Hawaiian Islands Marine Resources Investigation (MHI-MRI) be reviewed to determine current use of Kikaua Point and Kuki'o Bay or survey current use by fishermen. The committee recommended that a Fisheries Management Area (FMA) be considered for the Kikaua Point and Kuki'o Bay, and that the community should be made aware of the need to enforce FMA requirements, once the FMA is established.

Staff Note: Kikaua Point, a once-disputed parcel, is State-owned and was included in the park for planning purposes, however it should be noted that in resolving the disputed ownership, the adjacent landowner, Huehue Ranch Associates, agreed to quit claim the property to the State in exchange for a recreational easement over this property. At present Kikaua Point is not included in the State Park Executive Order.

Visitor Orientation Center Committee

Need for a Visitor Orientation Center: The committee found that public use of Mahai'ula is already high and as such, there is a need to control the flow of visitor's to Mahai'ula in order to better manage the park and its resources. They also noted that there is no facility in Kona where residents and island visitors can learn about the history of West Hawaii. They recalled that while there is a walking tour of Kailua town with three historic sites, nowhere is there a place to get an overall intelligent, interpretive history of the Kona area.

They suggested that a Visitor Orientation Center could be constructed at the entrance to the park at the Queen Ka'ahumanu Highway, and could serve as a park gate regulating the number of visitors entering the park. The Center could provide regional interpretation of historical, cultural and natural resources of Kona, as well as a community education facilities, with a museum and exhibit areas. Publications, posters, locally-made products and refreshments could be offered for sale, and water and toilet facilities provided. The committee noted that restroom facilities could be open from 8 am to 8 pm and refreshments served from 10 am to 8 pm. The Center could welcome park visitors and hikers, as well as bicyclists and motorists traveling the Queen Ka'ahumanu Highway.

Interpretive and Educational Programs: The committee found that interpretive programs should include educational, and commercial aspects, and should address the entire ahupua'a including its history, and its natural and cultural resources.

They saw the Visitor Orientation Center as an excellent site to interpret not only the cultural history of the ahupua'a within the park, but also the entire Kona region. The Center could include an indoor theatre for viewing presentations and appropriate videos and movies, as well as an outdoor amphitheater for outdoor presentations and programs, and outdoor seating for viewing the region. The Center could provide a facility for not only the visitor, but also the community and its schools where natural and cultural history could be taught and experienced.

Interpretive Facilities: The committee noted that cultural artifacts recovered from various projects within the Kona region are often stored elsewhere and not often exhibited. No educational/interpretive indoor theatre, nor an outdoor amphitheatre presently exist in the Kona area. Provision of an indoor theatre and an outdoor amphitheatre would enhance the educational and interpretive opportunities provided by the Visitor Orientation Center.

The committee recommended that cultural artifacts recovered from Kona projects be returned to Kona, and suggested that the Visitor Orientation Center could provide space for storage as well as the presentation of exhibits utilizing these artifacts. Exhibits could be changed periodically to provide the community and the visitor with a continuing educational experience.

Commercial Services at the Center: The committee found that commercial services can contribute to the resource both financially and educationally and can be provided at the Visitor Orientation Center. The committee cautioned that commercial aspects must be handled with sensitivity, in a manner similar to National Parks.

Facilities and Landscape Design at the Center: The committee noted that the Visitor Orientation Center will be located within the open expanse of the lava fields and in close proximity to the Queen Ka'ahumanu Highway, and at the same time, it will be located some distance from existing power and water supply lines.

The committee recommended that the design of the Center be handled with sensitivity because of its location, and possibly designed as a kipuka, as one of the wayside parks being planned along the Queen Ka'ahumanu Highway. The committee suggested that the architecture be similar to Keahole International Airport structures, or be a low-profile structure of lava rock designed to blend into the landscape. The committee recognized that alternative energy sources will need to be considered for the Center, and recommended photovoltaic equipment for power and a brackish water well for irrigation and toilets. Self-composting toilets are another option to be considered. The committee also suggested that as an option, the Center could be located on a frontage road from Keahole International Airport, or could be provided its own access road.

Trail Access: The committee anticipated that the Ala Kahakai, and the mauka/makai trails will be more accessible when the park has been developed. They also noted that there are other trail access points or nodes along the Kona Coast, and that the Ala Kahakai is presently being considered for designation as a National Trail by the National Park Service. The committee concluded that with increased access to the park, via the Ala Kahakai, there will also be a need for education and mitigation of the impact that will result. Management and maintenance of the Ala Kahakai and connecting trail system will be needed.

The committee recommended that the Visitor Orientation Center serve as a trail head for the trail system providing information, maps of the trails along with explanations and advisory information on provisions (water) and trail condition. The Center could also function as a meeting place for an expanded "adopt-a-trail" program.

View Corridors: The committee noted that views from the area along the Queen Ka'ahumanu Highway are unobstructed, open views that are not only beautiful and peaceful, but also educational providing opportunities to interpret the natural and cultural landscape. All ahupua'a contained in the park can be viewed from the proposed location of the Visitor Orientation Center. The committee recommended that the view corridors be maintained and utilized in the planning and design of the park and its facilities.

Kayak Use Management Committee

The Kayak Use Management Committee came into being in response to a State Park ban on the launching of kayaks at Kaelehuluhulu. Restrictions were put in place with the intent of managing the growing number of kayak users, and their use of the Kaelehuluhulu Beach and the nearshore waters in Mahai'ula Bay.

The 22 member committee met twice to review existing regulations and seek a resolution that would allow continued kayak access to the ocean at Kaelehuluhulu. It should be noted that the issue of kayak management extended beyond the Kekaha Kai State Park to include Old Kona Airport State Recreation Area.

Findings: The committee reviewed all applicable State Park, Boating and Ocean Recreation, Aquatic Resource division rules concerning vessel ingress and egress at State Parks in West Hawaii and the Conservation District Use Permit rules. The group also reviewed kayak-related management issues at Old Kona Airport State Park and at Kekaha Kai State Park.

The options considered included (1) to allow recreational use only and ban commercial use, 2) to allow recreation use and develop concession agreements with "x" number of commercial users to allow "x" number of guided tours; 3) to allow recreational use and rental kayaks, with no guided tours and 4) to continue the ban on kayaks.

Safety as well as the potential impact of kayakers and other recreational users, such as hikers, was of concern. Some committee members was noted that some areas, such as Kaawaloa at Kealakekua Bay, are desecrated and trashed by users. Other members indicated that tour guides are able to control people and prevent those undesirable actions.

While some members felt that kayaks should be permitted and that problems can be addressed as they arise, other members feared the impact of uncontrolled use, including impact to natural and cultural resources and sites, and recommended that a management plan be completed before lifting the kayak ban.

Recommendations: At Old Kona Airport, the group recommended lifting the ban on kayak launching because there is not much of a swimming beach at this park, and there is already a site at the northern end of the park that is the usual place for kayak launches.

At Mahai'ula, the majority of the group desired to re-establish kayak launching, however the group also recognized the need to protect cultural-historical resources as well as develop a management plan. The recommendation was to open the area to kayaking on an interim basis with specific established guidelines for kayakers, and to designate a specific area from which to launch kayaks.

In November 1996, two public information meetings were held by the Division of State Parks to present committee recommendations. Thereafter, the recommendations were accepted by the District Superintendent, and kayak launch sites at Old Kona Airport SRA and at Kekaha Kai State Park at Kaelehuluhulu were designated, and signs indicating the launch site location, posted. The committee also developed and distributed the following guidelines for recreational kayak use.

1. Follow all Federal, State and County laws pertaining to kayak use. Learn and practice safe boating. Understand and follow the Marine Mammal Protection Act and Endangered Species Act; don't harass the dolphins, turtles, whales, etc.
2. Land and launch your kayak only in areas designated for this activity by DLNR, where ever possible. When landing on rocky areas, pick up your boat to minimize plastic residue.
3. Understand that kayaks are not to be left at the park site overnight. At launch areas, kayaks are to be stored at sites designated as storage areas or on an individual's vehicle, not on the beach.
4. Access and operate at State Parks during the park's operating hours:
 - Kona Coast State Park (Kaelehuluhulu Point) 9:00am - 8:00pm.
Closed Wednesday.
 - Old Kona Airport (Pawai Bay) 7:00am - 8:00pm
5. Paddle safely. Always carry a lifejacket, emergency/first aid supplies, and water. Paddle within you skill level and know how to swim, or wear your life jacket. Cancel a trip in questionable surf or weather. Never enter into a situation which could jeopardize your safety or the safety of others. Render aid to any swimmer, surfer, boogie boarder, snorkeler, or small craft upon request. Give swimmers the right of way.
6. Respect and protect the environment. Do not touch, or step on, or take coral, or feed the fish. Haul out litter when you see it.
7. Always behave in a manner which is respectful of the environment and its inhabitants. Know where you are and what you are doing. Make an effort to learn about the area where you're paddling. Treat all Hawaiian cultural sites with respect, do not desecrate them. Take nothing and leave nothing behind.
8. Before going on a trip in unfamiliar waters, consult with a local expert who is familiar with the area. On long distance or extended trips, file a float plan

with a friend and consult the National Weather Service for weather and marine forecasts.

Kayak users were also instructed to contact the DLNR State Parks and Boating and Ocean Recreation divisions and the Hawaii County Parks and Recreation Department for information regarding regulations.

The committee had intended to also address the issue of commercial kayak use within parks, however they choose to defer to an internal DLNR committee, the Commercial Use Policy Task Force, who was in the process of developing a statewide Departmental policy on commercial activities on State-owned and managed lands and waters. The Commercial Use Policy Task Force presented its recommendations to the Board of Land and Natural Resources on October 10, 1997, however the Board choose to defer action on the recommendation.

CONTINUING TASK FORCE EFFORT

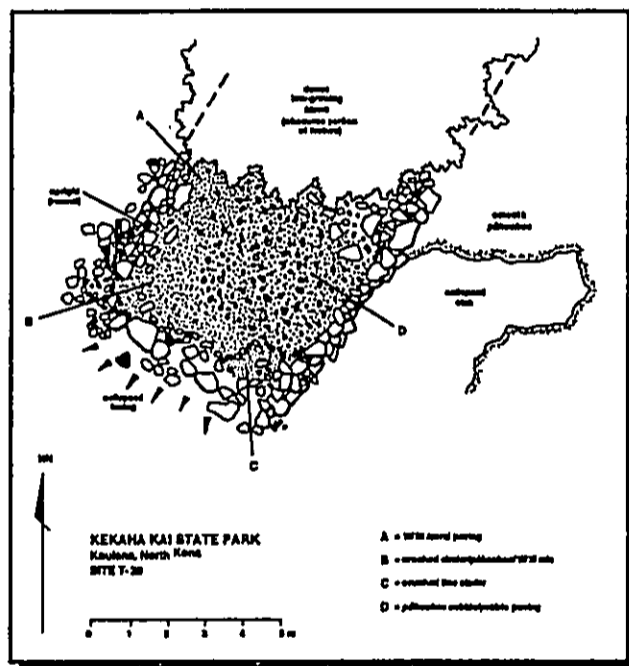
In July 1996, the Task Force completed its planning work, and then took on a new name and mission as the Friends of Mahai'ula at Kekaha Kai State Park. The Friends have continued to work with the Department to guide the immediate improvement of the park and its management.

The Friends have also sponsored two community clean-up days at Mahai'ula resulting in the removal of 10.63 tons of debris, painted of the two-story Magoon House, commissioned a new park entrance sign, and raised over \$ 8,000.00 for park programs and care.

Appendix K

Archaeological Reconnaissance Survey – Mahai'ula

ARCHAEOLOGICAL RECONNAISSANCE SURVEY:
KEKAHA KAI STATE PARK,
MAHA'ULA SECTION
KAULANA AND MAHA'ULA AHUPUA'A
NORTH KONA, ISLAND OF HAWAI'I



PREPARED BY:



State of Hawaii
Department of Land and Natural Resources
DIVISION OF STATE PARKS

**ARCHAEOLOGICAL RECONNAISSANCE SURVEY
KEKAHA KAI STATE PARK,
MAHAI'ULA SECTION
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NORTH KONA, ISLAND OF HAWAI'I**

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ARCHAEOLOGY SECTION



**State of Hawaii
Department of Land and Natural Resources
DIVISION OF STATE PARKS**

April 1998

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INTRODUCTION

In conjunction with the preparation of a park conceptual plan and a Phase I park development plan, an archaeological reconnaissance survey was conducted of the Mahai'ula section of Kekaha Kai State Park (formerly Kona Coast State Park), North Kona, Hawai'i Island. Kekaha Kai State Park consists of two discontinuous shoreline parcels between Kaulana and Kukio 1st, separated by the privately owned *ahupua'a* of Makalawena (Figure 1). The park spans roughly three and a half miles of the Kona coastline. The Mahai'ula section of the park, which this report addresses, includes all of the *ahupua'a* of Mahai'ula and a large portion of the *ahupua'a* of Kaulana *makai* of the Queen Ka'ahumanu Highway. The other parcel of Kekaha Kai State Park, which extends from the Makalawena-Awake'e boundary to the Kukio 1st-Kukio 2nd boundary and includes portions of Awake'e, Maniniowali, and Kukio 1st *ahupua'a*, has had initial archaeological work conducted (Soehren 1982, Walker 1985, Cordy 1986, Donham 1987, Athens 1989, Jensen 1990, Sinoto and Pantaleo 1990). The Mahai'ula section of the park has had almost no archaeological work conducted within it, and has never been systematically surveyed. This portion of Kekaha Kai State Park has been open to the public and subject to impacts from park visitors since 1995. The purpose of the present study is to provide preliminary baseline archaeological information to allow for better resource management, planning, and interpretation of the cultural resources within this area of the park. Prior to the implementation of any park improvements, an archaeological inventory survey should be completed for the proposed areas of development within the park.

Project Area Description

The survey project area encompasses all of Mahai'ula *ahupua'a* and a large portion of Kaulana *ahupua'a* situated *makai* of the Queen Ka'ahumanu Highway (Figure 1). The southern park boundary, situated entirely within Kaulana, is irregular, roughly paralleling the Kaulana-'Ohiki boundary in the *mauka* end, but then angles back toward Mahai'ula, encompassing only a very small portion of the *makai* extent of Kaulana (Figure 2). The lands to the south are under the jurisdiction of the

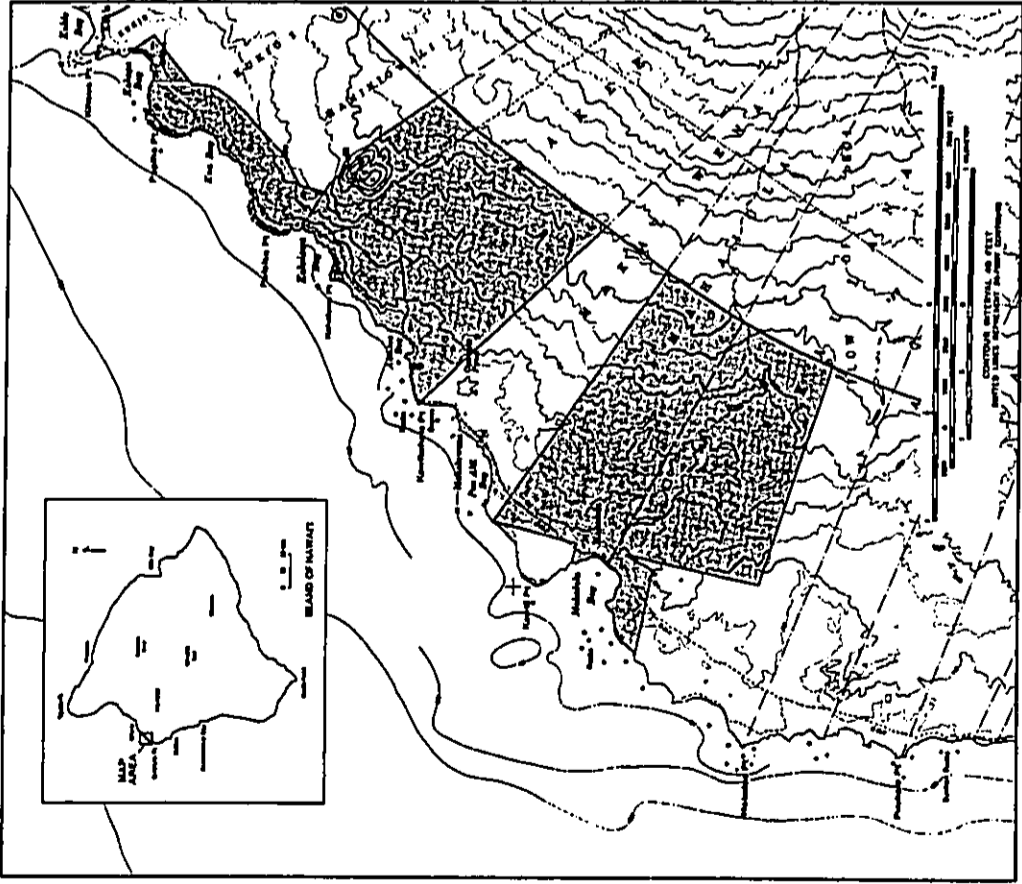


FIGURE 1: Location of Kona Coast State Park. The park consists of two parcels separated by the privately owned *ahupua'a* of Makalawena. The project area encompasses the southern parcel (USGS 7.5 minute series, Makalawena quad, reduced).

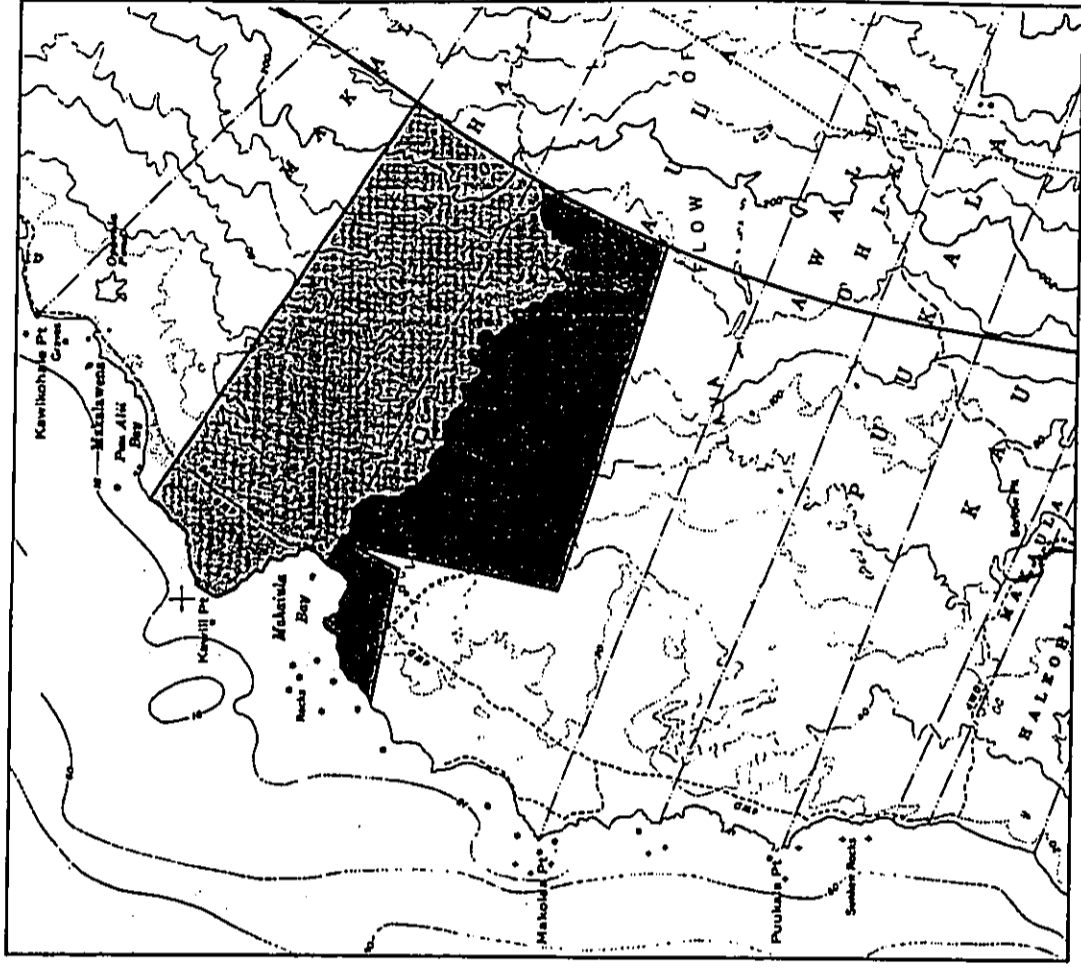


FIGURE 2: Surrey Project Area Location. The 1801 lava flow is indicated by the darker shading (USGS, 7.5 minute series, Makalawena quad. Scale 1:24,000).

Department of Transportation, Airports Division. The exact boundaries of the project area are defined by the Queen Ka'ahumanu Highway on the east, the Mahai'ula-Makalawena district boundary on the north, the shoreline on the west, and the borders of TMK parcels 7-2-05:2 and 7-2-05:3 on the south (Figure 3). This area encompasses roughly 900 acres (364 hectares). A 38 acre parcel (TMK 7-2-05:7) which encompasses Kawili Point is not presently included in the State Park, but is rather under the jurisdiction of the Department of Transportation (DOT), Airports Division. It is included in the survey area because it is an area that is and will continue to be subjected to impacts from park visitors, and it is an area known to contain a high concentration of archaeological features. The Division of State Parks is actively working with DOT to come to an agreement regarding management of this parcel. Additionally, a one acre lot (TMK 7-2-05:4) situated inland in Kaulana *ahupua'a* is privately owned and excluded from the state park. This area, marked by a stone-walled enclosure, is a burial plot of the Ka'elemakule family belonging to the Catholic church.

A cluster of buildings is situated at the north end of Mahai'ula Bay just behind the beach. These structures, consisting of a large main house, a smaller house, a generator shed, a storage shed, and separate bath houses and water tanks compose what is known as the Magoon Estate. The Magoon family owned forty acres of shoreline property from 1939 until the land was condemned by the state of Hawaii for park purposes in 1993. Prior to the Magoons, the land was owned by the Ka'elemakule family of Kona since 1903, and some of the buildings date to this earlier period. All of the remaining buildings in the complex are slated for renovation for park uses, including a marine education center.

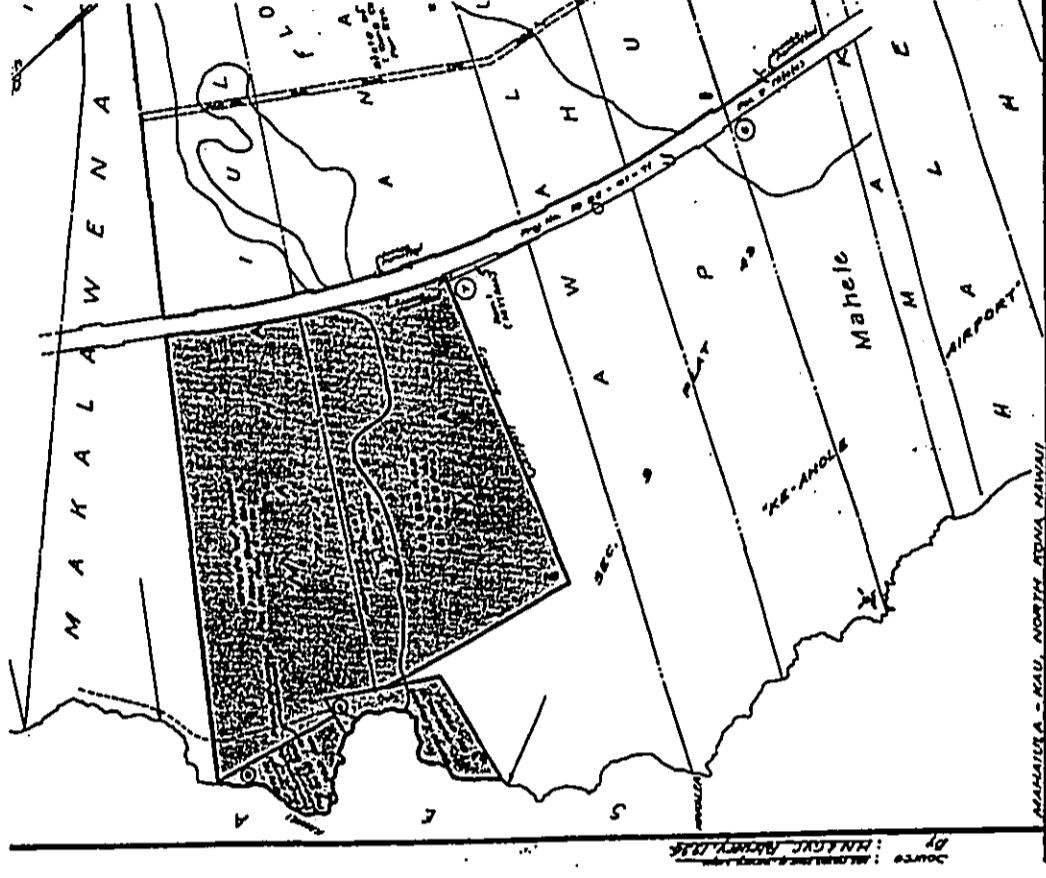


FIGURE 3: Survey Project Area Location by Tax Map Key (TMK 7-2-05, por.) Parcel 7-2-05:7 (Kawili Point) is under the jurisdiction of DOT, Airports Division.

ENVIRONMENTAL SETTING

The project area is located on the Kona coast of Hawai'i Island. In addition to the dry conditions associated with leeward areas, the landscape is dominated by geologically recent and historic lava flows, lending a very barren and bleak air to the whole of the region. The most recent flow, the 1801 Hu'ehu'e Flow from Mt. Hualālai was locally devastating, destroying fishponds and coastal settlements, as well as trails and undoubtedly upland features. The project area is flat to gently sloping, and the aforementioned lava flows are of both the 'a'a and pāhoehoe types. Soil development in this region is almost non-existent. However, sand, gravel, and boulder beaches have formed in pockets along the coastline. There are two nicely developed coralline sand beaches in the project area, at the crescent which forms Mahai'ula Bay and at Ka'eiehuluhulu, just south of Mahai'ula. The two beaches are separated by a small expanse of pāhoehoe lava, part of the 1801 flow. Coral reef and a shallow bench of submerged lava flows fronts the whole of the project area just offshore.

Due to the recent nature of the lava flows, the vegetation in the area is very limited. The flows contain very sparse pioneer vegetation communities, dominated by exotic fountaingrass. A narrow band of strand vegetation exists along the shoreline at the back of the coralline sand beach which composes Mahai'ula Bay, and in the area just back of Ka'eiehuluhulu Beach, just south of Mahai'ula. These strips, separated by a point of pāhoehoe lava, contain *kiawe* (*Prosopis pallida*), tree heliotrope (*Tournefortia argentea*), *milo* (*Thespesia populnea*), *kou* (*Cordia subcordata*), *naupaka* (*Scaevola sericea* Vahl) and *pohuehue* (*Ipomoea pes-caprae*), with *kiawe* being the dominant species (Ohashi 1997). In addition, coconut groves are situated at both ends of Mahai'ula Bay, associated with the historic occupation of the area. A native sedge famous for use in woven mats, *makaloa* (*Cyperus lacvigatus*), grows within and around the margin of the ponds at Ka'eiehuluhulu. A single mature endemic *lo'ulu* palm (*Pritchardia affinis*), a listed endangered species, is planted fronting the former Magoon house in an area containing introduced ornamental

plants. Additionally, two threatened native plants, *maiapilo* (*Capparis sandwichtiana*) and a native sedge (*Fimbristylis sandwicensis*) are present within the project area.

Rainfall in this region averages less than 30 inches per year, although some fresh water makes its way from the uplands by flowing underground through lava tubes.

An important natural feature of the coastal area in this region is the Low Salinity Anchialine Pool Community. These slightly brackish pools are fed by underground streams and provide a valuable source of fresh water to this region. These pools contain important biological and cultural resources. They support native species such as 'ōpae'ula (*Halocaridina rubra*) and provide habitat for the endangered black-necked stilt (*ae'o*, *Himantopus mexicanus knudseni*), an endemic waterbird, as well as other indigenous migratory waterbirds. The anchialine pools would have been an important source of drinking and irrigation water in this otherwise arid region, and the freshwater influx was important to maintaining the ideal salinity for fishponds.

HISTORICAL BACKGROUND¹

Kekaha wai'ole o na Kona.
Waterless Kekaha of the Kona district.
Kekaha in Kona, Hawaii, is known for its scarcity of water but is clearly loved by its inhabitants [Pukui 1983, #1716].

The earliest historical account of this area was made by Captain Vancouver in 1794:

... the adjacent shores were uninteresting, being chiefly composed of volcanic matter, and producing only a few detached groves of cocoa nut trees, with the appearance of little cultivation, and very few inhabitants [Vancouver 1798, vol. 3: 62].

The coconut trees seen by Vancouver were likely clustered around the anchialine pools found along this shoreline, where the habitation was probably centered. And while Vancouver noted little cultivation, the aridity of the area would have precluded the growing of intensively cultivated crops such as taro. Sweet potatoes and other dryland crops raised in lava flows were often cultivated in mulched pits, which would not have been easily visible from a passing ship. Further evidence for this fact comes from Hardy, who relates:

Wherever a little soil could be heaped together along the dry lava coast of North Kona, a few sweet potatoes were planted by fisherman at such places as Honokohau, Mahai'ula, Makalawena, Kaupu'iehu, Kiholo, Keawaiki and Kapalaoa [Hardy 1940: 163].

John Papa I'i relates a voyage he took as a young boy (circa 1812) in a ship bound for Kailua along this shoreline:

... The next day the ship arrived outside of Kaielehuluhulu, where the fleet for *aku*

¹ A much more in-depth historical overview, including oral histories, is presently being prepared by historical consultant Kepa Maly as a separate report. Maly's report will also be included in the EIS for the park development.

fishing had been since the early morning hours. The sustenance of those lands was fish.

... Soon the fishing canoes from Kawaihae, the Kaha Lands², and Ooma, drew close to the ship to trade for the *pa'i'i* (hard poi) carried on board, and shortly a great quantity of *aku* lay silvery-hued on the deck. The fishes were cut into pieces and mashed; and all those on board fell to and ate, the women by themselves [I'i 1959:109-110]

The missionary Reverend William Ellis traveled along this coastline in 1823, and described coastal settlements at Kapalaoa, Wainānāl'i, and Kiholo. His description is the most detailed early account of this region, but he does not convey any information about the area between Kiholo and Kailua-Kona, where our present project area lies.

The great fishpond Pa'aiea was formerly located between Ka'elehuluhulu and 'O'oma, south of Keāhole Point. This pond, reputed to be three miles long by one and a half miles wide, was reported as being completely filled in by the 1801 lava flow (Maguire 1926).

The Hawaiian historian Samuei Kamakau recounts events associated with this lava flow:

Another important event which occurred in the fourth year of Kamehameha's rule was the lava flow which started at Hu'ehu'e in North Kona and flowed to Mahai'ula, Ka'upu'iehua [sic], and Kiholo. The people believed that this earth-consuming flame came because of Pele's desire for *awa* fish from the fish ponds of Kiholo and Ka'upu'iehu and *aku* fish from Ka'elehuluhulu; or because of her jealousy of

² The "Kaha lands" refers to the region of Kekaha, as mentioned in the following poetical saying:

"Ola aku la ka 'aina kaha, ua pua ka lehua i kai"
Life has come to the Kaha lands for the lehua blooms are seen at sea

"Kaha lands" refers to Kekaha, Kona, Hawaii. When the season for deep-sea fishing arrived, the canoes of the expert fishermen were seen going and coming (Pukui 1983:#2478).

Kamehameha's assuming wealth and honor for himself and giving her only those things which were worthless; or because of his refusing her the tabu breadfruit of Kameha'ikana which grew in the uplands of Hu'ehu'e where the flow started [Kamakau 1961:185].

Kamakau goes on to state that Kamehameha was required by his religious advisors to make certain sacrifices to Pele, lest the flow continue. Kamehameha did so, and the flow stopped:

The flow had been destroying houses, toppling over coconut trees, filling fish ponds, and causing devastation everywhere. Upon the arrival of Kamehameha and the seer and their offering of sacrifices and gifts, the flow ceased; the goddess had accepted the offering [ibid.:186].

The small pond presently existing at the back of the sand beach at Ka'elehuluhulu is, in fact, a remnant of the great Pa'aiea Fishpond, according to John Ka'elemakule, a resident of Mahai'ula in the late nineteenth/early twentieth century:

... In the church where Mr. Thurston held the prayer service [at Makalawena], long *koa* benches were placed along the walls, and in the center of the church, the *makaloa* sedge had been spread on the floor. The *makaloa* was obtained from what remained of the famous pond that was covered by the eruption. It was the pond Paalea, a portion of which remains at Kaeleluluhulu to this day. This is what remains of the great pond that was several miles long, but is now covered by the stone plain that spreads across Kekaha [Ka'elemakule 1928:4].

The shoreline at Kaulana and Mahai'ula contains evidence of tsunami damage. This phenomenon was recorded in the early nineteenth century for this area by the missionary Cochran Forbes:

On the 7th. [November, 1837] about 7 o'clock at night the sea at this place receded a number of feet, leaving the shore dry far below low water mark. The phenomenon produced [sic] excitement among the natives & fish. The cause was unknown as

we had no earthquake nor any sensible cause. The evening was perfectly calm & pleasant. The moon was in her first quarter. At Kekaha where the shore is low the return of the sea, tho' very gentle swelled far above high water mark and swept away some houses, tho' no lives were lost. At Hilo the return of the sea was very violent and rose high above high water mark and did great damage as many of the people there lived on the shore. Eleven or twelve souls were suddenly swept into eternity and multitudes of others carried, by the retreating waves far, from land but effected a return & some were picked up by the boat of a whaleship lying at anchor. The phenomenon occurred at Hilo about 7 O'clock, being earlier than at this place, tho' not much earlier [Forbes 1884:59].

Additional evidence for tsunami impacting this area comes from Kelly (1973), who relates that all the houses in the village of Makalawena, just north of Mahai'ula, were wiped out in the devastating tsunami of 1946. There is no first hand account of the effect of that tsunami on Mahai'ula, but apparently the houses at the northern end of the bay survived with little or no damage, as they still stand today.

John Wesley Coulter described land use in Kona in 1853 as follows:

Hawaii, the largest island in the Hawaiian group, had the largest population, namely 24,450 . . . The most densely peopled continuous area was along the coasts of North Kona and South Kona . . . The Kona districts have a type of climate which differs somewhat from that of the rest of the islands. The larger amount of rainfall . . . Comes during the warmer months of the year. On the broad southwestern slopes of Mauna Kea and Mauna Loa, convection air currents arise which are strongest in summer. This causes an inflow of air from the ocean which, rising up to the western slopes, precipitates its moisture. The combination of heavy rainfall and high temperature on this part of the island has caused a dense growth of forest.

In spite of the heavy rainfall there are no perennial streams on this coast, because the soil is porous.

Dry land taro was an important crop in the Kona districts. Breadfruit, bananas, and coconuts grew there, all of which were used for food . . .

Wilkes (46, pp.91, 94-96) states of Kona in 1840: "The natives during the rainy season . . . Plant, in excavations among the lava rocks, sweet potatoes, melons, and

J. Ka'elemakule, Jr. purchased the land around Mahai'ula Bay as well as a separate inland burial lot from the Territory of Hawaii on May 27, 1903 for \$123.00. The transaction was recorded as Land Grant No. 4723. The forty-acre shoreline parcel as well as the one-acre burial lot were surveyed by the government at that time and the survey indicates that the corners of both properties were marked by four *ahu* on each parcel (Land Grant files, Land Management Division, State of Hawaii). Two buildings are plotted on the survey map at the north end of the bay, along with the name "Keawehala" which may be a place name associated with that area. At the south end of the bay, the name "Lae o Umi" appears to denote a coastal location (examination in the field reveals that a finger of lava extends into the ocean at the southern end of Mahai'ula Beach - this is quite likely the point referred to in the survey). The large 40-acre parcel straddles the boundary of Mahai'ula and Kaulana, with the bulk of the land situated in Kaulana. The burial lot is also located in Kaulana. It appears that the Ka'elemakule family were tenants of the land at Mahai'ula from at least the mid nineteenth century: John Ka'elemakule, Jr.'s father was born in 1854 and raised at Mahai'ula by his *hawai* parents Kaaikaula and Poke (Maly 1998).

Several accounts published in the Hawaiian language newspaper *Ka Hōkū o Hawai'i* convey rich information about the Kekaha region in general and about specific locations within the project area. J.W.K.I. Kihe wrote about the place Ka'eiehuluhulu in 1914:

Ka'eie-huluhulu (Splintered or frayed outer hull of a canoe)

It is just a small place which is called Ka'eiehuluhulu, but the fame of this landing is great... There is a place to enter the ocean here with a channel, and in the middle of this channel which the canoes use to enter, is a mound of *pūhoehoe* called Ka'eiehuluhulu. There is water to the inland and seaward of this stone, and if one goes *aku* fishing even at dawn, this is the exit one must depart from. If the sea water was shallow, that is at low tide; all in the canoe would leap out to bear the canoe above this *pūhoehoe* mound and place it in the ocean, then they get back

into the canoe and travel away. If when they return to this place, the tide is low, they bear the canoe upland of the stone and place it in the water, and then paddle to the canoe landing. It is because of this continual hauling of the canoes [over the *pūhoehoe*], that the hulls become rough or frayed in texture, and so "The rough - frayed hull" came to be named [Kihe and Wise 1914].

John Ka'elemakule wrote about his life at Mahai'ula in the late nineteenth and early twentieth century in a series of articles written for *Ka Hōkū o Hawai'i*. He richly conveys many aspects of life at that time at Mahai'ula, emphasizing heavily the importance of fishing. Ka'elemakule indicates that there were temporary housesites on stone platforms along the shoreline, an area which was formerly shaded by very large *kou* trees. He also relates the following regarding a petroglyph field and a sacred stone in Mahai'ula Bay:

There is a fine broad place on the *pūhoehoe*, about two miles from the village, along the trail that ascends to the uplands (*ālanui pū uka*), that one can see many of the names of the old people written upon the *pūhoehoe*. The names and letters are etched in the *pūhoehoe*. In several of the names that I saw written there, was the letter "Z", which is the first letter of the name like "Zawihela" and "Zaumoana". This is a letter which was not entered in the mother language of our land. We begin at the "A" and go to the "W", so how did the old people get this letter "Z"? [August 20, 19293, translated by Kēpā Maly]

There in the middle of the bay and canoe landing of Mahai'ula, is a stone in the water. It stands just a few fathoms out from the shore. When the tide is out, you can walk out to and get on the stone. The ancient name by which this stone was known is "Pohakuolama". This stone looks like a block on which women weave hats. It is round from top to bottom, two people can encircle it, and it is 5 feet high.

It is said in the legend, that the stone is the body of a woman, and it is a stone which causes the increase or abundance of fish for the fishermen of this land, Mabalula. For three months, this female stone dwells in a period of *kapu* (restriction), a period of menstruation. This is in the months of May, June, and July. During the time of defilement, the fishermen of old, were also forbidden from taking offerings to the stone

with which to ask for the increase of fish. When this female stone, in the bay and canoe landing of Mahai'ula, dwelled in her period of menstruation, the water appeared yellowish-red (*ka'ena metemete'ua*) in shallow waters to about two fathoms depth. But when one looked into the water, it could not be seen. The yellow-red remained in the bay of Mahai'ula for the three months mentioned above, and it was so for all the years of my youth. Perhaps it is the same, even at this time.

At the time when her menstruation ended, that was the time that she would be purified, the defilement of the period ended. It was at that time also, that the yellow-red would disappear and the sea water of Mahai'ula became clear once again. Then once again, the fishermen of Mahai'ula would take offerings to her asking that she would cause the fish to increase [August 22, 1929 - translated by Kepā Maly].

The smaller of the two homes at Mahai'ula was built by John Ka'elemakule in 1880 with lumber shipped from Honolulu. This house, which his foster mother named Kalāhikiola, replaced an earlier *pili*-grass thatched home in the same location (*Ka Hōkū o Hawaii*, July 9, 16, August 6, 1929 - translated by Kepā Maly). This house is just south of the two story Magoon house built early in this century.

Ka'elemakule also wrote that both his foster parents, Kaaikaula and Poke, and his birth mother and her husband, Keakaonālii and Maianu, were buried in the cave called Kolomikimiki in Kaulana.

Abraham Fornander reiterated the legend of the female stone and also commented on the surfing tradition at Mahai'ula:

Not far from Makalawena is a beautiful crescent white-sand beach called Mahai'ula. It is the site of an ancient famous surf that produces 25-ft waves perfectly formed for surfing. It is also the home of a stone fish goddess located about a fathom from the shore and named Pohaku-o-Lama. She was brought gifts by fishermen except during May, June, and July. During these months the water in the bay turned yellowish and it was said that this was caused by the deity menstruating [Fornander 1959:287].

John Reinecke recorded several archaeological features during his cursory archaeological survey of this coastline in 1930 (Reinecke 1930 - see Previous Archaeology, below). Reinecke's observations are important, as they represent the last recorded observations prior to the large tsunamis of this century, which apparently caused a great deal of disturbance to the nearshore area. He noted concrete salt pans and house sites at the northern end of Kaulana near the beach "at the edge of the flow", evidence that salt manufacturing was taking place. This industry may explain the Ka'elemakule purchase of land encompassing the lava flow in Kaulana as well as his house site in Mahai'ula. Reinecke recorded four modern houses plus the ruins of another, as well as what he described as a modern stone and concrete platform, suggesting (as the earlier unawarded land claims had) that there was a small settlement at Mahai'ula early in this century. Reinecke used J. Ka'elemakule as an informant, who told him of a *heiau* "at the spot Kaeleluluhulu, on the beach. It is a fishing heiau, called Hale o Hiu", as well as petroglyphs "on the pahoehoe about 1 1/2 miles from Mahai'ula." Reinecke did not relocate either of these sites (ibid.).

With regard to the trail between the former Magoon estate and Makalawena, George Magoon had the following to say:

The Magoons continued to access Mahai'ula by boat or from Hu'ehu'e by foot and donkey until the late 1940s or early 1950s, when the trail down through Ka'upulehu to Awake'e was modified for jeep use. For awhile, the Magoons would drive to Makalawena, then make the last leg of the trip to Mahai'ula by boat. Eventually, Porto [Almodober] and his "compad," Alfredo, built a road by hand, across the lava to Mahai'ula. This road parallels, and in some places obliterates, an older aa paved trail. Today the Magoon family enjoys a paved access from the Queen Kāhuanu Highway (Springer 1986).

A tour company began bringing tourists down to Ka'eleluluhulu beach in 1977. On a leased parcel of land, restrooms, shelters, and a snack bar were built, many of which are still standing today. The company's owner, Ivar Kaiipo, constructed a paved road from the highway down to his shoreline parcel in 1979 (Clark 1985:117). The remnant of this road presently serves as the park access road.

PREVIOUS ARCHAEOLOGY

John F.C. Stokes conducted a survey of Hawai'i Island heiau sites in 1906-1907. He recorded no specific sites in the vicinity of our project area, but did note the following:

Two *ko'a*, dedicated to Kū'ula, were reported on the land of Makalawena, North Kona. On the adjoining land, Mahai'ula, a *ko'a* called Haleohulu and an unnamed structure near Kaeleluhulu [sic] were mentioned [Stokes and Dye 1991].

John Reinecke of the Bishop Museum conducted an archaeological survey of the Kona and Kohala coast in 1930 (Reinecke 1930). In Kaulana and Mahai'ula, he observed seven sites, and discussed two others. Table 1 correlates his site numbers with those recorded during our present survey. His site descriptions follow:

Site 90. North edge of Kaulana, at the edge of the flow, and where the coral beach encroaches upon it: Concrete salt pans; six house platforms; stagnant pool. A section of beach with walled pools and a few *kiawe* trees, is cut off by a wall. Adjoining it mauka are a house platform and pen. Within the wall are various patches of wall and one dwelling site. Back of the north end of the wall are six or seven traces of enclosures or sites of some sort, all very small. Also four good *papamu*. 15x13, 9x9, 9x9, 9x9.

Site 91. Small, high-walled pen with a house platform outside and two fine natural shelters inside. The platform has a small cave to one side, probably once covered over and used for cold storage. A wall surrounds two more house platforms and a walled floor of *illili*. Beyond is a modern concrete and lava platform. *Papamu*. 15x12 rows.

Site 92. Wall and modern house ruins. *Papamu mauka*, (?) 9x8.

Site 93. Three house sites, one a modern walled house. Back of the wall is a series of low-arched shelter caves.

Site 94. House site in line with the three present houses. Pools and wells by clump of *cocopalms*. Past the clump is apparently a house site.

There is some *kiawe* at Mahai'ula, probably covering some sites. Owing to my hurried tour of the coast here, I did not see the heiau which Mr. J. Kaelemakule, a *kamaaina* of the place, says is located at the spot Kaeleluhulu, on the beach. It is a fishing heiau, called HALE O HIU. He says that there are petroglyphs on the pahohoe about 1 1/2 miles from Mahai'ula; I did not find them either.

Site 95. Paths running along the coast. Graves and shelters a little mauka. Apparently five house sites on the beach, one a definite house platform and one carefully walled. One hundred feet farther on is a long, narrow, walled platform and a bit of shelter wall on a cleared space.

Site 96. Apparently the ruins of several old platforms on the sand [Reinecke 1930].

In 1970, Francis Ching conducted a major survey of the Kailua-Kawaihae Road Corridor for the Department of Transportation and the Division of State Parks, Outdoor Recreation and Historic Sites (Ching 1971). This project encompassed a 23 mile long by 2000 foot wide corridor, presently housing the Queen Ka'ahumanu Highway. The survey documented a total of 1052 features and collected 259 surface artifacts. Nine features were found in Mahai'ula, and five in Kaulana (Figure 5). Of these fourteen features, only three are located in our present project area, with the rest being located above or within the present highway alignment). Features 1355-1359 are located in Kaulana, with the trail (Feature 1357) running *mauka-makai* cut by the highway corridor. The remainder of the sites are located in Mahai'ula. They consist of the following:

Feature 1171, a dwelling cave with internal modifications, measuring 10 m by 16 m by 3.5 m high. Within the cave are 2 platforms and a C-shaped partition. Ash and shell midden were present.

Feature 1172, an *ahi* measuring 3 m by 3 m by 5 m high, of stacked *pāhoehoe*.

Feature 1357, a narrow foot trail zigzagging over smooth *pāhoehoe*.

Feature 1358, an *āhu* 1 m by 1 m by .4 m high, built of stacked *pāhoehoe* and situated on the south side of trail Feature 1357.

Feature 1359, an *āhu* measuring 1.2 m by 1.3 m by 1.2 m high, constructed of stacked *pāhoehoe* with the base stones faced. Located atop a *pāhoehoe* bubble on the north edge of trail Feature 1357, with petroglyphs located along the base of the *āhu*.

Paul Rosendahl directed the archaeological salvage of the sites to be impacted by the highway construction for the Bishop Museum (Rosendahl 1973). Three of the above features were included in this salvage project (1183, 1357, and 1358). It is believed that features 1183 and 1358 (both *āhu*) were destroyed by the highway construction. Feature 1357, a foot trail, was cut by the highway. However, it extends all the way to the coast, ending at Mahai'ula Bay, and it also continues *mauka* of the present highway, presumably to Hu'ehu'e Ranch. No further research was conducted on these features during the salvage operations.

Rosendahl also summarized the prehistoric settlement-subsistence pattern of North Kona, relating them to three zones between the ocean and the mountains:

The area of aboriginal Hawaiian occupation can be divided into three principal zones: a very narrow and arid coastal zone associated with the exploitation of marine resources; a sloping, barren intermediate zone of Recent volcanics, almost devoid of soil or vegetation; and an upland habitation zone associated with agricultural exploitation. The further *mauka* forest zone was exploited, but rarely inhabited (Rosendahl 1973: 60-61).

The only sites recorded by Ching and Rosendahl which remain in our present

project area are features 1186, 1357, and 1359. Feature 1357 (foot trail) and 1359 (*āhu* and associated petroglyphs) were relocated during the present survey. The dwelling cave (Feature 1186) was not relocated.

Ching included an inventory of fishponds for the Kekaha region as an appendix to his 1970 survey. Of interest are two ponds recorded as being destroyed by the 1801 lava flow, the previously-mentioned Pa'aiea Fishpond, reputed to be the largest on the island, and Kaulana Fishpond, about which he wrote the following:

The fishpond of Kaulana, like Pa'aiea, was also destroyed by the Hualalai flow of 1801. The makai portion of Kaulana ahupua'a, in which this fishpond was located, has been almost completely covered by the lava. A few sites are noted for this area (Ching 1971: Appendix 4).

William Kikuchi inventoried all known fishponds in Hawai'i in his doctoral dissertation (Kikuchi 1973). He recorded Kaulana Fishpond as a type II (*pu'uone*) pond, .28 acre in size, and notes that it was inundated by the 1801 lava flow. It appears from this description that Kikuchi believed that the walled pond near the present parking lot at Ka'elehuluhulu is a remnant of Kaulana Fishpond⁴. However, it has also been called a remnant of Pa'aiea Fishpond (Ka'elemakule 1928 - see Historical Background).

Paul H. Rosendahl, Inc. conducted a reconnaissance survey of the *makai* portion of Makalawena, the northern adjacent *ahupua'a* to Mahai'ula, in 1986 (Donham 1986). The survey documented 49 archaeological sites composed of 121 features, including cairns (*āhu*), overhang shelters, cave shelters, walled shelters, C-shaped walls, trails, cleared ponds, and walled ponds. Almost half of the recorded sites were clustered around Kapo'ikai ('Ōpae'ula) Fishpond, a natural anchialine pool utilized as a

⁴ Ching likely based his interpretation of Kaulana Fishpond on the archaeological survey report of Reinecke (1930) in which he describes "...walled ponds and a few *kiawe* trees..." at Kaulana. All earlier historical references indicate that the aforementioned pond remnant formerly belonged to the great pond Pa'aiea.

fishpond, and associated with the former Makalawena Village (Donham 1986).

PREDICTIVE MODEL

The project area has been the subject of relatively few previous archaeological investigations, and these studies have been very limited in their scopes. Fortunately, there are a great amount of historic materials and oral traditions associated with the area, much of it recently compiled by cultural consultant Kepā Maly (Maly 1998). By examining these sources, the following predictive model can be hypothesized.

Traditional sources as well as the limited archaeological work conducted in the project area suggest that Hawaiian settlement existed here at least by the late prehistoric period and continued in ever-decreasing numbers into the early part of the twentieth century. The project area and the greater region is famous for a lack of water, as well as for extensive offshore fishing resources and nearshore aquacultural development. The region is also well known for salt production, an activity which continued well into this century. Agricultural development has been characterized as small-scale planting of sweet potatoes and possibly other dryland crops. Agricultural intensification in this region was limited to the uplands above ca. 2000 feet in elevation where there is sufficient rainfall for the cultivation of crops. Between the shoreline habitation zone and the upland agricultural/habitation zone is a broad zone characterized by barren lava fields and a lack of resources. The upland agricultural zone is well beyond the *mauka* limit of the present project area. Therefore the project area is likely to have supported a limited population concentrated along the shoreline and to have had a lack of permanent inland habitation and associated sites. Temporary habitation sites, in the form of cave shelters and small walled features are known for this zone, as well as trails and cairns (*ahu*). Nearshore sites should include permanent and temporary habitation sites, storage and agricultural pits, salt manufacturing areas, *ko'a* (fishing shrines) and possibly other religious sites (*heiau*), and trails, both along the shore and

heading *mauka*.

The 1801 lava flow which covers most of Kaulana *ahupua'a* has dramatically altered that portion of the project area. This area formerly contained the northern end of the great fishpond Pa'aiea, of which today only a very tiny remnant remains. Undoubtedly, the prehistoric population around the margins of such a pond and the corresponding site density would have been much higher than following the destruction of the pond in 1801. Associated archaeological features probably included housesites, trails, religious sites, petroglyphs, burial sites, and perhaps recreational and ceremonial features such as *holua* slides, similar to the prehistoric settlement pattern exhibited around the fishpond complexes at Kaloko and Honokōhau just a few miles to the south.

The nature of the soils in the project area (geologically recent lava flows) preclude the existence of extensive subsurface cultural deposits. The only exceptions to this might be within lava tube shelters and within sand beach deposits. However, the beach deposits are both shallow and seasonal in this area, and have been susceptible to scouring from tsunamis and storm generated waves which may have removed any previously existing buried cultural deposits. There is also the potential for additional burials to be found within the beach deposits as well as within inland lava tube shelters. Additionally, large, smooth areas of *pāhoehoe* lava were often used as the setting for the creation of petroglyphs, both prehistorically and historically.

Habitation of the shoreline area continued into this century. Site types associated with this period should include historic house foundations, roads and trails, animal pens, wells, salt pans and possibly burials.

SURVEY RESULTS

A total of 71 archaeological sites/site complexes were recorded during the survey project. Some of these sites were previously recorded by Reinecke (1930) and Ching (1971). For a correlation of site numbers, refer to Table 1. As mentioned above, two previously recorded sites in the project area, a group of platforms described by Reinecke (Site 96) and a dwelling cave recorded by Ching (Feature 1186) were not relocated during this project. This reconnaissance survey may have missed some features due to the methodology employed during the foot survey, especially in the *mauka* areas (circa 200+ meters inland from the coast).

Methodology

An archaeological reconnaissance survey is conducted in order to determine the presence or absence of archaeological surface features within a given area, and to describe the variability and show the spatial distribution of those features. It is not intended to locate and completely describe all of the features in an area. This survey is intended to be a preliminary examination of the cultural resources situated within Kekaha Kai State Park in order to assist with planning for the park, and to make appropriate recommendations for additional research to be conducted. Additional work would likely include more intensive (inventory) survey for selected areas, as well as test excavations, particularly in areas of potential heavy park use and proposed developments.

The reconnaissance survey conducted was a 100% coverage pedestrian survey. A two to three person crew under the direction of the State Parks archaeologists walked the entire survey area. Survey was conducted intermittently for one-week periods between February 2, 1997 and July 3, 1997. During this period, eighteen days were spent in the field.

Two levels of survey intensity were utilized during the pedestrian survey. In the nearshore areas (circa 200 m inland from the shore), a high-intensity survey level

TABLE 1: Correlation of Site Numbers in Kekaha Kai SP Survey Project Area

State Parks (1997) Site Number	Ching (1971) Feature Number	Reinecke (1930) Site Number
T1	-	- ^a
T15	-	95
T16	-	90
T17	-	90
T18	-	91
T19	-	91
T25	-	91
T31	-	90
T32	-	93 (?)
T33	-	92 (?)
T39	1357	-
T40	1359	-
T51	-	90
T52	-	90
T53	-	90
T54	-	90
T45	-	94
T56	-	95
T56	-	95
T70	-	94, 95

^a = This site was indicated on Reinecke's field map, but given no site number in his manuscript.

was maintained, with crew members spaced at approximate 10 meter intervals. Transects in this area were walked paralleling the shoreline. From circa 200 meters inland from the shore *mauka* to the highway, a low-intensity survey level was utilized, with crew members spaced at circa 30-50 meter intervals following an established compass bearing. This large interval was maintained due to the fact that this entire *mauka* area is covered with geologically recent and historic lava flows with a predicted low site density, combined with a lack of significant vegetation other than low-growing fountain grass, which allowed for superior visibility.

When sites were encountered during the survey, they were tagged with flagging tape and given a temporary site number. They were then briefly described and sketched, and black-and white photographs were taken of the features, except in the case where poor lighting or the deteriorated nature of a feature deemed photography ineffective. The site locations were approximately plotted on an enlarged USGS 7.5-minute series quad map. Due to the fact that there were virtually no points of reference on the lava fields to provide for accurate plotting, all site locations were recorded with a Trimble Pathfinder GPS unit. Coordinates were later differentially corrected using the Pathfinder™ software application, utilizing data from the State Historic Preservation Division base station established at Leeward Community College on O'ahu. This technology provides an accuracy of circa ± 1.5 meters. GPS readings were taken at the approximate center of each site. For large complexes, multiple readings were taken to define the site perimeter. The generated output of the GPS locations were used to produce the site location map within this report (Figure 6).

Several sites were revisited after being located during the pedestrian survey for additional site recording. This additional recording ranged from more detailed description, measuring and photographing, to the production of detailed plan-view scale maps of selected features. Mapping was done via tape-and-compass. All plan view maps were drawn in the field. When compass bearings are given in this report, they reflect degrees off of magnetic north unless otherwise stated.

Much of the field time was spent mapping the Kawili Point Complex (Site T70), the most extensive and well-preserved complex in the project area. In this complex, approximately 65 features were mapped, ranging from small rock-lined pits to large complex habitation platforms.

Portable remains were observed at several sites, predominantly shellfish remains. None were collected during the survey. Additionally, large pieces of a shipwreck (Site T69) strewn throughout the nearshore area at Ka'eiehuluhulu were similarly left in situ.

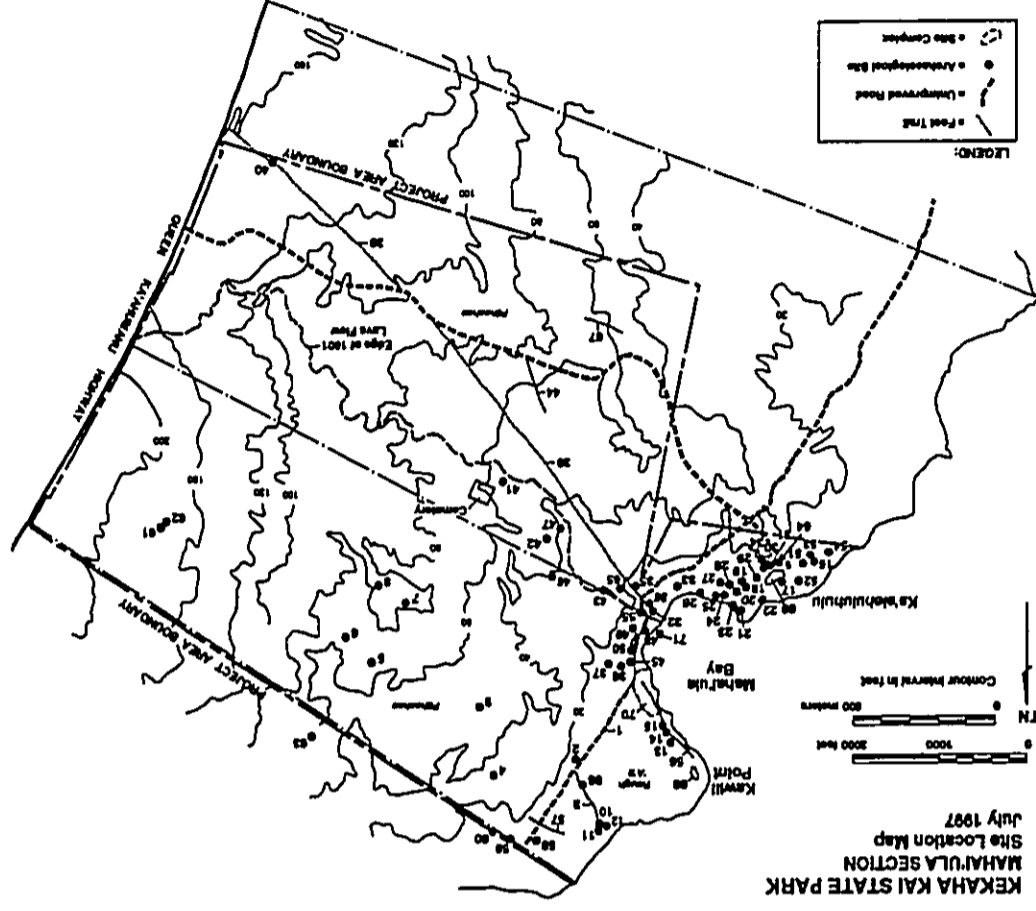


FIGURE 6. Site Location Map for Project Area.

The 'ākuā stone, Pōhaku o Lama, situated just offshore of Mahai'ula Beach was also included in this inventory (as Site T71), despite being submerged and therefore technically outside of the project area. This natural stone has a traditional religious significance and remains a sacred object worthy of protection. The additional submerged resources, the remains of two shipwrecks further offshore, are not included in this inventory, as they are well outside of the project area and are being documented in detail as part of the University of Hawai'i maritime archaeology field school.

Site Descriptions - Ahupua'a of Mahai'ula

II. Trail

This site consists of a paved foot trail through rough 'a'a lava that extends from the northern end of Mahai'ula Bay to the southern boundary of Makalawena, where it becomes indistinguishable upon entering the sand dunes. A jeep road was constructed along the same alignment, obliterating portions of the earlier foot trail. The trail wound its way through the 'a'a field, and was paved with waterworn boulders, 1-3 stones wide. It appears to have been a solidly paved trail as opposed to a stepping stone trail, and was not curbed. Due to the winding nature of the trail, in some places it is nearly intact running parallel to the road, and in others the trail paving stones are still situated within the roadbed. In many places, however, the waterworn trail stones are used in the curbing of the later road.

The jeep road was apparently built circa 1950 by a Makalawena resident, Porto Almodober (Springer 1986). It is approximately 2.5 m wide, roughly curbed on the sides, and runs in nearly a straight alignment for approximately 650 meters. The bed of the road is roughly paved with crushed 'a'a.

II. Pool

This feature is situated alongside the trail/road (Site T1), approximately at the midway point of the road. It is located 4 meters from the road, on the mauka side.

The feature is excavated from the 'a'a, with a small amount of standing water in the bottom. It is approximately 1.5 m below the surrounding ground surface, and the base of the pool measures 80 cm in diameter. The feature is roughly walled, and the rocks around the lower reaches of the pool are coated with a white, calcium-like substance. The water is slightly brackish. Roughly 10 meters mauka is a small ahu.

II. Trail

A little beyond Site T2 heading toward Makalawena, a trail branches off to the northwest (bearing approximately 330°), heading to the coast north of Kawili Point. This foot trail is narrow and winding and is intermittently paved with stepping-stones of waterworn boulders. It is also occasionally roughly curbed, and its route is marked with large pieces of white coral. The total length of the feature is approximately 240 meters, and it leads to Sites T10, 11, and 12, situated at the back of a basalt and coral cobble beach.

II. Ahu

Located approximately 220 meters mauka of trail T1 and 140 meters south of the Mahai'ula-Makalawena boundary, this ahu is situated on a rise within a weathered pāhoehoe flow. It is roughly circular, approximately 1.5 m in diameter by 60 cm high, and constructed of stacked flat pāhoehoe slabs. The surrounding area has evidence of quarrying.

II. Ahu

Located approximately 580 meters mauka of Site T4, this ahu is square, approximately 1.5 m on a side by 90 cm high, also constructed of flat pāhoehoe slabs (Photo 1).

II. Ahu

This feature is located about 125 meters mauka of Site T5. It is rectangular, approximately 2 m (E-W) by 1.5 m (N-S) by 60 cm in height. Of similar construction to the other ahu, this feature is very nicely faced on the makai (north) side, but



PHOTO 1: Feature T5, Typical *Ahu* Found on Open Lava Flows in Mauka Project Area. Also note predominant fountaingrass vegetation typical for area. View to south.

collapsed on the other sides.

IZ. *Ahu*

Situated on a prominent *pāhoehoe* rise about 820 meters *mauka* of the trail (Site T1) and 240 meters southwest of T5, this *ahu* is of different construction than the others in the area. This feature is roughly conical, constructed of piled *pāhoehoe* chunks. It is approximately 1.5 m in diameter at its base and 80 cm high.

IB. *Ahu*

Also situated on a prominent rise of *pāhoehoe*, this feature is located 115 meters *mauka* of Site T7 and about 260 meters south of Site T5. It is roughly square, constructed of neatly stacked, flat pieces of *pāhoehoe*. The feature measures 1.5 m on a side by 70 cm high. Much of the stacking has collapsed, and pieces from this collapse

are spread around the base of the feature.

IT. *Ahu*

Yet another feature built atop a small, prominent rise, this *ahu* is located approximately 400 meters *mauka* of trail T1 and 240 meters south of Site T4. This feature is oval in shape, approximately 1.8 m (N-S) by 1 m (E-W) by 60 cm in height, and constructed of stacked flat *pāhoehoe* chunks. The feature is somewhat collapsed, especially on the *makai* side.

TIQ. *Ahu*/platform

This feature is located just back of the cobble beach which is accessed by trail T3, within the *'ā'ā* flow. It is immediately adjacent to the south side of the trail, approximately 70 meters from the shoreline. The feature consists of a large *ahu* or small platform, constructed of slacked *'ā'ā*. It measures approximately 2.5 m by 2.5 m square, and up to 1 m in height, and is built atop a rough outcrop next to the trail. A great deal of coral, both waterworn and branch varieties, is placed atop and around the feature, which has collapsed a great deal and appears very rough. The presence of the coral, possibly placed as offerings, suggest that this feature may have served as a *ko'a*. Site T10 is part of a small complex and is associated with Sites T11 and T12. The beach *makai* of this complex is one of the areas which Reineke (n.d.) documented in 1930 as Site 96, noting deteriorated house platforms. There is no longer any evidence of these features, which were likely wiped out by the 1946 tsunami and/or winter storms.

TIJ. Stepped platform

This feature is located on the opposite side of foot trail T3 and slightly *makai* of Site T10, approximately 16 meters north of that feature. This terraced platform is situated on a small natural lava rise. A level surface has been created atop this rise, backed by piled *'ā'ā* boulders and measuring approximately 6 m (N-S) by 4 m (E-W). This area is paved with *'ilii'i* stones and coral. The northwest corner of the feature is at a lower level than the upper platform, separated by a 30 cm high retaining wall.

Near the southeast corner of the upper platform is a large boulder with a natural *puka* in it, which may have served as a cupboard. A great deal of shell midden is scattered throughout the feature.

T12. C-shaped shelter

Located just a few meters *makai* of Site T10, this is a rough walled C-shape containing a small amount of scattered marine shell. The feature is constructed of roughly stacked *a'a*, and is approximately 2 m long and 1 m high.

Just *makai* of the complex composed of Sites T10-T12 is a rather broad coral and basalt cobble beach. This area was indicated by Reinecke in 1930 as the location of Site 96, described only as "platforms in the sand". There is no evidence of Site 96 today. In fact, there is almost no sand there - most of the area is covered with the aforementioned coral and basalt cobbles. This area is undoubtedly very susceptible to high surf and tsunami inundation, either of which could easily have wiped out any surface features here. However, at the rear of this beach is a large level area measuring approximately 50 by 30 meters, containing a great deal of coarse coralline sand as well as cobbles, and overgrown with *poihuehue* (beach morning glory, *Ipomoea pes-caprae*). If there were platforms and other associated features in this location, it is possible that evidence of them lies buried here in the form of subsurface cultural deposits or features.

T13. Pool

This feature consists of a small brackish water pool excavated from the *a'a* on the north side of Mahai'ula Bay. It is located approximately 185 meters southeast of Kawili Point. A short stepping-stone trail of waterworn boulders leads to the feature from the main paved trail leading to Kawili Point. The trail is about 25 meters long, running roughly north-south. It descends to a low point in the *a'a* flow where the pool is situated. The pool is roughly walled and circular, approximately 1.5 m in diameter by 1 m deep (to the surface of the water). The pool is shallow, perhaps 50 cm in depth. This pool is located very near the popular surfing break on the north

side of Mahai'ula Bay, which according to Clark (1985), "many surfers consider... to be one of the best right slides on the Kona Coast (p. 116)", and is undoubtedly utilized by surfers as a rinsing-off place. However, it is not known whether the pool was constructed for that purpose in modern times, or if it represents an older feature being adapted for modern use.

T14. Complex

This is a very small complex of four adjacent features located 30 meters southeast of Site T13, situated on a lava shelf right at the northern edge of Mahai'ula Bay, with a 4 meter drop to a cobble beach. The four features consist of:

A: Small U-shaped walled shelter of stacked *a'a* boulders, with interior dimensions of approximately 4 m (N-S) by 2.5 m (E-W) and open to the bay (south) side. The rear wall is approximately 1 m in height and the side walls are lower, circa 50 cm high. The interior of the feature is fairly level and paved with *a'a* cobbles and a little waterworn coral.

B: *Ahu* of stacked *a'a*, situated between features A and C, measuring 1.6 m in diameter by 1.3 m high. This feature utilizes a portion of the eastern wall of Feature A for its base.

C: Cleared, paved area measuring roughly 7 m (E-W) by 3 m (N-S). This area is roughly rectangular, paved with *a'a* cobbles, and is on the east side of features A and B.

D: Rock-lined pit, off the northwest corner of Feature C. This pit is approximately square, with rounded corners, and lined with roughly stacked *a'a* boulders and cobbles. The feature measures 1.6 m in diameter by 1.6 m deep. It is obscured by several decayed coconut fronds.

T15. Enclosure

This feature consists of an elongate rectangular enclosure, measuring approximately 12.8 m (N-S) by 3.8 m (E-W), reminiscent of a canoe shed, but extremely rough in its construction. The feature is also walled on its *maka'i* side, which would not be expected for a canoe shed. The walls are of piled 'a'a cobbles and boulders, sometimes simply single-stacked, and bedrock is utilized in the wall construction. The walls average 70 cm high, with some breaks and collapse. A break in the north wall of the feature near the northeast corner allows access to the coastal trail leading to Kawili Point (Site 56). The interior of the feature is relatively level and is paved with 'a'a cobbles as well as a small quantity of 'i'i'i'i stones. The enclosure is situated about 3 meters above a cobble beach on a natural lava shelf, and is oriented with its long axis perpendicular to the shore. This axis is oriented 235°. The feature is located approximately 30 meters southeast of complex T14.

T3Z. Complex

This complex is situated in rough 'a'a, approximately 100 meters *mauka* of the elevated water tank that is located adjacent to the trail/jeep road (T1) between Mahai'ula and Makalawena. It consists of a cluster of enclosures, shelters, pits, pavings, platforms and trails spread over an area roughly 50 meters in diameter. The average walled enclosure is circa 2.5 m square. There is a small amount of marine shell scattered within the complex. This area probably served as a temporary habitation area, food storage, and possibly as a burial area. Further investigation is warranted here, as time constraints prohibited detailed recording or mapping of this site. The complex contains an estimated 25 features. A narrow foot trail leads to the complex from the Matai'ula end of trail T1.

T38. Shelters

This site is located approximately 50 meters west of the center of Site T37. It is situated just 40 meters beyond the edge of the bulldozed area on the *mauka* side of the Magoon estate. It consists of two side-by-side shelters formed by a natural sink on the south side and modified by a stacked wall on the north side (Photo 2). The



PHOTO 2: Site T38, Rockshelters. This view is of the western of the two shelters. The second shelter is situated on the other side of the natural archway visible at the top of the photo. View to east.

two are separated by a natural archway. The overall size of the site is circa 9 m (N-S) by 3 m (E-W). The shelters contain small amounts of shell midden on their floors. A rough trail through the 'a'a appears to have led from here to the beach fronting the Magoon House, but it has been damaged by bulldozing.

T33. Rockshelters

This site is located right at the Kaulana-Mahai'ula boundary, within an older *pahoehoe* flow as indicated by a rough brown weathered and undulating surface. This

is only about 10 meters from the northern edge of the smooth, black *pāhoehoe* of the 1801 flow. The site is approximately 200 meters from the shoreline, back of the Magoon house. Overall size of the sinkhole is 12 m (E-W) by 4 m (N-S). It contains overhangs within it which have been modified with low stacked walls at their entryways. There are two shelters within this sinkhole, both are greatly disturbed. Marine shell is scattered throughout. There are actually a series of rockshelter and other features in this area. The sinkholes run in a *mauka-makai* series. At least two other modified sinkholes, an *ahu*, and a C-shaped shelter were noted in the immediately surrounding area. All of these features appear to be very disturbed, and of course similar features just to the south would have been filled by the 1801 flow. A large amount of goat scat and skeletal goat remains in these features may explain some of the disturbance. This area is deserving of further survey.

T45. Complex

This complex is located in the grove of tree heliotrope situated between the Magoon house and the coconut grove at the northern end of Mahai'ula Bay. It is just on the *mauka* side of the stone and mortar shoreline trail, adjacent to and atop a natural lava outcrop. Features identified within this complex include a paved platform, a C-shaped walled shelter, and several wall segments. This complex is completely overgrown by the heliotrope, and therefore could not be fully evaluated. The extent of the site could not be accurately determined, but is estimated to be approximately 30 m along the shoreline (N-S) by 10 m *mauka-makai* (E-W). This may be the house site described by Reinecke as Site 94.

T46. Rockshelters

This site consists of a collapsed sinkhole containing three modified rockshelters. It is located about 185 meters *mauka* of Site T43, and almost directly *mauka* of the Magoon house, an estimated 400 meters from the shoreline. This area is within the older *pāhoehoe* flow, approximately 40 meters north of the 1801 lava flow. The overall size of the sink is 6.5 (N-S) by 19.5 (E-W). A small amount of marine shell is scattered throughout the sink, including cowrie, conus, urchin, turbo, and fish bone.

This shell scatter is concentrated near the interior features. The three interior features are as follows:

A: Situated on the west (*makai*) side of the sinkhole, this feature is a terraced platform built across the sink, 1-3 stones high and filled. The surface area of the platform is rather minimal, and there is very little natural shelter created by the edge of the sink. A portion of the facing is intact, but much of it has been disturbed, possibly by goats.

B: Situated centrally along the southern edge of the sink, this feature consists of a natural shelter created by the edge of the sink with a stacked wall in front of it. The shelter is approximately 2.5 m deep by 1 m high. There is an intact section of wall on the *makai* (west) side of the shelter opening.

C: Feature C is located at the southeast end of the sinkhole. It is the largest natural shelter within the sink, circa 2.5 m in height and 2.5 m deep. It appears to have had a platform fronting it, but this feature has collapsed. In addition to marine shell, Feature C contains goat scat and the skeletal remains of a cat or mongoose.

T48. *Papamā*

This isolated feature is located just south of the Magoon House, directly in front of the park picnic table under a *miro* tree. It is situated at the very edge of the lava shelf just above the sand beach of Mahai'ula Bay. The *papamā* is rather indistinct - the holes of the board filled with sand help to make it visible. It measures circa 10 by 9 holes.

T49. Depressions

Located in the rock walled and fenced yard between the Ka'elemakule house and the storage shed, this feature consists of two adjacent man-made depressions atop a level, in situ slab of flat *pāhoehoe*. Each depression is circular, measuring

approximately 50 cm in diameter by 10 cm deep. Each is uniformly concave throughout, rather than having a flat bottom as is customary for salt pans, suggesting that they may have served another function, perhaps associated with the more recent historic occupation of the area. The *pāhoehoe* slab is roughly 2 m by 1.5 m.

I50. Platform

This feature (Photo 3) is immediately north of the Magoon house, in the open area between the house and the heliotope grove marking Site T45. It sits at the very *makai* edge of a large bulldozed clearing behind the Magoon house. It consists of a rectangular platform measuring 23 m paralleling the shore (N-S) by 15.5 m *mauka-makai* (E-W) in good condition. The platform is constructed of stacked *pāhoehoe* and 'a'ā chunks, 1-2 stones high on the *makai* side and several stones high on the *mauka* side, to a maximum height of one meter. The surface of the platform consists of a perfectly level paving of 'a'ā and coral pebbles. This feature appears to be relatively recent, as evidenced by its excellent condition in comparison with other features in the area. Additionally, on the south side of the platform's surface are two concrete circles with holes in the center at paving level. One of these circles is engraved "1954, CAPTAIN ALAN". Additionally, the *mauka* side of the platform surface has been painted with a series of parallel white lines. According to at least one local informant, this platform was constructed by the Magoon family to serve as the foundation for a tennis court which was never completed (Casey Cho, pers. comm.). The size of the platform suggests that this is a viable theory. A now unusable water pipeline parallels the *makai* edge of the platform, and the northwest corner of the platform is obscured by heliotope. The southeast corner of the platform is partially collapsed.

I55. Wall

This wall (Photo 4) is situated right at the contact of the 1801 lava flow and an earlier *pāhoehoe* flow, just south of the Magoon house complex, slightly *mauka* of the access road to that area. It roughly parallels the shoreline. It actually straddles the two lava



PHOTO 3: Feature T50, Paved Platform Adjacent to Magoon House. Level area in foreground has been graded. View to northwest.



PHOTO 4: Feature T55, Stone Wall to South of Magoon/Ka'eiemakule House Complex. View to southwest.

flows, dating it as a post-1801 feature. The wall is broken on its southwestern end, where it may have been cut by the access road. From that point it extends to the northeast (oriented 45° magnetic) for approximately 20 meters, at which point it meets a natural lava rise and is rather deteriorated. The wall is approximately 90 cm wide and is a maximum of 140 cm in height. It is constructed of angular chunks, roughly faced and core-filled. There is a marked difference in construction materials which coincides with the contact of the two lava flows. The southwest half of the wall is built of black 1801 flow stones, while the northeast end is constructed of brown, earlier flow stones. The *makai* side of the wall has had rock rubble bulldozed right up to the edge of it, possibly from the road building. At the northeast end of the wall are two bent iron rails of unknown function.

T56. Trail

This is a very substantial paved trail leading from the northern end of Mahai'ula Beach nearly to Kawili Point, where it has been obliterated by high surf and/or tsunami. It originates just north of the northwest corner of the large enclosure marked by the coconut grove at the extreme north end of Mahai'ula Beach. The enclosure is one of the features of Site T70 (see below). It appears that construction of the enclosure destroyed the southern extent of the trail, suggesting that the enclosure is a more recent feature. The trail averages about a meter in width, although it is up to 1.5 meters wide in some sections. It travels more or less straight, bearing northwest toward the point, but occasionally winding where it traverses the coast. The trail passes through the entire length of Site T70, where a number of smaller trails connect to it, then continues an additional 195 meters toward Kawili Point. It finally becomes indistinguishable at the back of a cobble and coral beach approximately 30 meters southeast of the anchialine pool (Site T68) at the point. The overall length of the existing trail is 315 meters. The trail is the most impressive in the project area despite the fact that it is in rather poor condition. It is intermittently curbed and paved. In some areas it is paved with solid waterworn boulders, in others with flat *pāhoehoe* slabs, and still other areas utilize a crushed *a'a* pebble and 'ili'ili paving. In some stretches a combination of paving materials is

used. Beyond Site T70 extending toward Kawili Point are some very impressive sections paved with waterworn boulders. This section of the trail is at the very edge of the coast, and large sections have eroded into the sea, leaving gaping holes in the trail. In some cases, newer, rougher trails have been built in recent times to connect these older remnant sections.

T57. Trail

This site consists of a *mauka-makai* foot trail which crosses trail/jeep road T1 near the Mahai'ula-Makalawena boundary. This is a narrow, winding foot trail through the *'a'a*. *Makai* of T1, it extends for at least 90 meters until it becomes unrecognizable. Along this length the trail is marked by intermittent stepping stones. *Mauka*, it extends 40 meters to a later *pāhoehoe* flow, where it becomes difficult to follow. No stepping stones were noted *mauka* of Site T1.

T58. Pool

This is one of many small anchialine pools along this shoreline. This one is located just a few meters *makai* of the trail/road T1, very near the Makalawena boundary. It is approximately 10 meters south of the sand dunes that overlay the *'a'a* flow at Makalawena. The pool is approximately 5 m (N-S) by 2 m (E-W), and ringed with white-encrusted *'a'a* boulders and cobbles. There is no evidence of walled sides on this pool, which contains cool, brackish water. The pool has a maximum depth of about 50 cm. *'Ōpae'ula* were noted in the pool.

T59. Pool

Another anchialine pool, this feature is located about 30 meters *mauka* of the dune system, right at the Mahai'ula-Makalawena boundary. This small pool is approximately 1.5 m in diameter, and contained no evidence of walled sides.

T60. Pools

These pools are situated in a natural lava trench, located about 65 meters *mauka* (southeast) of T59, and as with that site, may actually be located in Makalawena.

Several pools are situated in the trench, which is approximately 10 m long. A goat skeleton lies next to the largest of these pools, which contain *'ōpae'ula*.

I61. Ahu

This is a very rough feature constructed of piled *pāhoehoe* boulders, approximately 1 m in diameter by 70 cm high. The *ahu* is roughly conical.

I62. Ahu

This feature is even more crude than T61, consisting of just a few chunks of *pāhoehoe* piled into a roughly conical form, measuring approximately 80 cm in diameter by 40 cm high. This feature is located approximately 25 meters south of Site T61.

I63. Trail Remnant

This site is actually located in Makalawena, but is included here as the trail undoubtedly traversed Maha'ula as well. This remnant section is located approximately 75 meters north of the Maha'ula-Makalawena boundary in Makalawena *ahupua'a*. This remnant is indicated by a filled natural trough in the rough *pāhoehoe* flow. The trough measures approximately 2 meters across. It has been filled and paved with flat pieces of *pāhoehoe*, and this paving extends onto the adjacent rough *pāhoehoe*. The trail remnant is approximately 1.5 m wide, and is faced on the *mauka* side to a maximum height of about 40 cm. On the *makai* side, it meets the natural ground surface. This trail is oriented 185° (magnetic), and thus roughly parallels the shoreline. This orientation tends toward *ahu* sites T5-T8, suggesting their functions as trail markers. This remnant is remarkably similar to a remnant portion found in Kaulana approximately a kilometer to the southwest. It is possible that these two remnants are part of the same ancient trail.

I66. Pool

This site is located along foot trail T3, 50 meters *makai* of trail/jeep road (Site T1). It is a nicely modified anchialine pool located on the south side of the trail. It is

situated between two massive upright bedrock boulders in such a way that it can only be approached from *makai*. When approaching from this direction, the two bedrock boulders give the impression of a deep trench, which one must walk into to reach the pool. This "trench" is about a meter wide and three meters long. The sides of the boulders are approximately three meters high. A sloping *'a'a* paved ramp with two waterworn stepping stones leads down to the pool, which is roughly walled, and measures circa 1 m in diameter by 50 cm deep. Its water is very cool and slightly brackish.

I68. Anchialine Pool

This is the largest anchialine pool in the project area. It is located at Kawili Point, separated from the ocean by a basalt and coral cobble beach perhaps 20 meters wide. This pool is natural, and contains brilliantly colored orange-red algae. There are a number of possible man-made pits along the inland edge of the pool, and its size suggests that it could have been used as a small fishpond prehistorically, although it is not recorded as one in any of the previous literature. The pool measures approximately 27 m (E-W) by 57 m (N-S), although the size of it fluctuates with the tide. A number of reef fish were observed in the pool. The surrounding area contains many additional small pools.

I70. Kawili Point Complex

This is a large, multi-use site located on the north side of Maha'ula Bay. It is situated within the rough *'a'a* flow that formed Kawili Point and which extends from the northern edge of Maha'ula Bay into the southern portion of Makalawena. This site covers 160 meters along the coast (SE-NW) and approximately 70 meters inland from the coast. Many features in this complex are situated right at the edge of the bay, and portions of the site may extend further inland. This is the most complex and extensive site located during the park survey. It consists of circa 60+ features ranging from foot trails, enclosures, and complex habitation platforms to probable burials. This site was mapped in detail during the survey, and a large fold-out map is included with this report (Figure 7).

For the purpose of recording, the site was broken down into a series of smaller complexes (A through P). Refer to Figures 8-10 for complex and feature locations. Unless otherwise noted, all of the features are constructed of angular-subangular *a'a* stones. A brief description of each follows:

Complex A: This complex consists of a large stone-walled enclosure and associated features, situated at the northern edge of the sand beach at Mahai'ula (Figure 8). These features are constructed of cobbles and small boulders. They include the following:

A1: The large enclosure measures approximately 25 m (N-S) by 35 m (E-W), with core-filled walls approximately 90-100 cm in width and 80-100 cm in height. The central portion of the north wall of the feature is formed by a natural lava shelf that drops to the interior. There are two breaks in the wall, one in the east wall near the southeast corner, and a second in the west wall near the northwest corner. These breaks may be recent, as they presently are part of the trail leading to the point. The interior of the enclosure houses a grove of mature coconut trees, and is covered with sand, except for a small area adjacent to the west wall which is paved with *a'a* cobbles.

A2: Atop the aforementioned shelf on the north edge of the enclosure is a single petroglyph, a linear human form. This is the only petroglyph recorded in the project area which may be prehistoric in age.

A3: A small brackish water pond outlined by a stacked-stone wall is located in the northwest interior corner of A1. This pond measures approximately 3 meters in diameter and the walls surrounding it are 90 cm high to the interior. The western side of the pond is formed by a large bedrock boulder.

A4: This is a well feature located within A1 against the north wall. This feature is

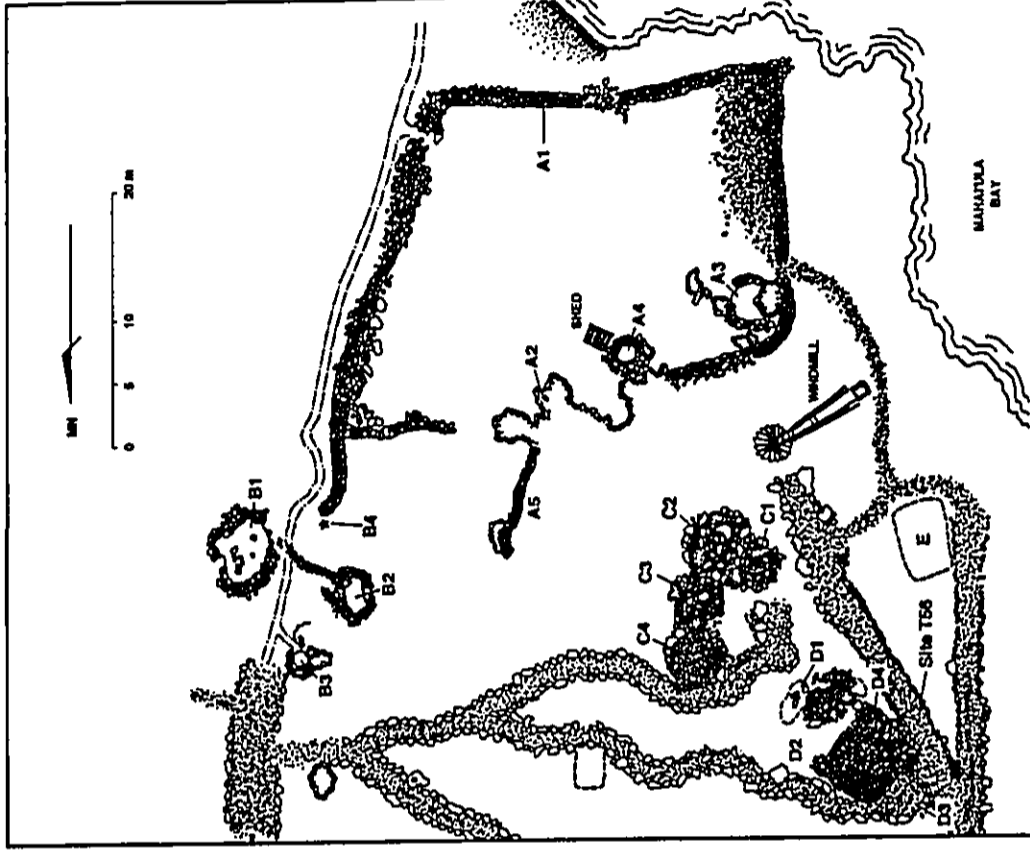


FIGURE 8: Detail of Complexes A-D and Feature E within Site T70. For overall site map, refer to fold-out Figure 7.

excavated to a depth of 140 cm below the ground surface, and is roughly 1.5 m in diameter. The interior is of roughly stacked small boulders and cobbles. Adjacent to the well is a small shed that apparently housed a water pump. Several water pipes set into concrete originate from this water source.

A5: This is a poorly constructed wall extending northward from the outcrop which forms the northern side of A1. The intact portion of the wall extends 9 meters, but it appears to have originally been longer. This feature is roughly stacked atop undulating bedrock outcrops, and measures 90 cm in height and 70 cm in width.

Complex B: This consists of a cluster of four small walled brackish-water pools to the north of Complex A (Figure 8). They are clustered around the trail from the Magoon house which leads to Makalawena.

B1: This is the largest of the ponds, and is situated on the east (*mauka*) side of the trail. This pond measures 4-5 m in diameter and is ringed by roughly stacked and piled boulders and cobbles, up to a meter in height. The water is accessed on the west side, where there is a break in the stonework. Several stones are in the interior of the pond. At the time of the survey, several adult *Aholehole* (Hawaiian flagtail, *Kuhlia sandvicensis*) were visible in the pond. This pond is connected to B2 via a concrete-paved waterworn boulder trail.

B2: This pond is located across the main trail from B1, on the *makai* side of the trail. It measures 2-3 m in diameter and is surrounded by a roughly stacked cobble/small boulder wall up to 170 cm in height. The pond is accessed on the east side via a break in the wall. Two waterworn boulders placed near the entrance of the pond serve as a step down into the pond.

B3: This small pond is located about 5 meters north of B2. It is very small (1.5 m in diameter), and the west side of the feature is made up of natural bedrock boulders.

The north and east sides are formed by a roughly stacked stone wall, up to 150 cm in height. The pond is accessed from the southeast via a break in the wall.

B4: A fourth small pond is located approximately 4 meters south of pond B2, near the end of the wall which extends off the northeast corner of Feature A1. This very small pond was completely obscured by vegetation at the time of the survey and therefore no detailed description of it is available.

Complex C: This is a cluster of several adjacent small, roughly constructed enclosures built within a natural *a'a* outcrop (Figure 8).

C1: This is a small C-shape measuring 2 m by 2 m, incorporating some natural bedrock boulders. The feature is open to the northwest, and the maximum wall height is 70 cm. It is roughly paved with *a'a* pebbles and cobbles.

C2: Located 2 meters southeast of C1, this feature is a small rectangular enclosure measuring approximately 3m (N-S) by 2 m (E-W). Many natural bedrock boulders are incorporated into its walls, which are up to 70 cm high. The feature is well-defined only in the interior. The exterior of the feature simply blends in with the natural, rocky landscape. The level interior of the feature contains a couple of protruding bedrock boulders as well as a paving of *a'a* pebbles and cobbles. It has no entrance.

C3: This square enclosure is 1 meter north of C2, and shares a portion of its southern wall with the northern wall of that feature. It measures approximately 2.5 m (N-S) by 2.2 m (E-W). Unlike feature C2, this enclosure does have partially defined exterior walls. The walls measure up to about a meter high and a meter wide. The interior is similar to C2, with the addition of a minimal amount of waterworn coral pebbles. This feature also contains no entrance.

C4: Situated 1.5 meters north of C3, this is a rectangular enclosure measuring roughly 3.5 m (N-S) by 2.5 m (E-W). This feature, with walls circa 60 cm in height and up to a meter in width, is similar to C2 and C3, with no coral utilized in its paving. A small cupboard is integrated into the interior northwest corner of the feature as well. Immediately north of C4 is one of the many winding, cleared foot trails traversing the area and connecting the various complexes. As with C2 and C3, Feature C4 has no entrance.

Adjacent to Feature C4, on the west side, there are the remains of an additional feature too deteriorated to accurately evaluate.

Complex D: This group of features is located 10-15 meters northwest of Complex C, separated by a foot trail (Figure 8). Complex D is immediately adjacent to the well-defined, curbed and paved trail (Site T56), on its *mauka* side.

D1: This feature consists of an irregularly shaped, modified natural depression in the *a'a*, with natural lava bubble rockshelters on two sides. The depression is roughly L-shaped, measuring 3 m along the long axis (E-W) by 2.5 m along the short axis (N-S). The depression is about a meter deep, and its interior has been modified with stacked stone cobbles, so that the feature is partially walled. Two natural lava bubble shelters originate from the north and south extremes of the depression. The southern shelter is approximately 3 m deep, and the northern is approximately 1.5 m deep. The floor of the walled depression as well as the two natural shelters are roughly paved with *a'a* pebbles and cobbles, and all contain scattered marine shell.

D2: This feature is located about 2 meters northwest of D1, and consists of a substantially-walled U-shaped shelter. The interior of the feature, which is open to the southwest (facing the bay) measures 2.5 m by 2.5 m, and may have contained a slightly raised interior platform in the northeast half of the structure, against the rear wall. The relatively wide but partially collapsed core-filled walls measure as

much as 90 cm high and 2 m wide. The interior of the feature is roughly paved with cobbles and pebbles. Both the interior paving and the walls utilize some waterworn coral in their construction. A very low, piled wall (ca. 20 cm high) defines the seaward (open) side. Additionally, in the back (northeast) wall of the feature, a small *puka* (hole) has been created in the center of the top of the wall, open to the top. This *puka* contained a rusted cooking pot. Immediately adjacent to the north side of D2 is a cleared foot trail through the *a'a* which heads east and intersects with the jeep road/trail to Makalawena (Site T1).

D3: This is a deteriorated feature situated immediately adjacent to D2, on the northwest side of that feature. It appears to have formerly been a walled shelter, but presently consists of simply a cleared/paved area measuring roughly 2 m by 2 m. It is notable for a greater proportion of waterworn coral used in the paving than is typical of other features in the complex.

D4: On the *makai* (southwest) side of feature D2 is a small cleared and paved area, irregular but roughly oval in shape. Its limits are defined by a low border of piled cobbles. It measures roughly 4 m (NW-SE) by 2 m (SW-NE). The paving is of *a'a* pebbles, and it contains scattered marine shell on the surface.

Feature E: This is a single feature located approximately 16 meters northwest of the northwest corner of the large enclosure A1 (Figure 8). Situated atop a natural rise in the *a'a* are the deteriorated remains of what appears to have been a platform, measuring roughly 6 m (N-S) by 4 m (E-W). Modern foot trails fork around its southern side. It is likely that foot traffic headed to Kawiil Point has caused the damage to this feature.

Complex F: This complex is located approximately 30 meters northwest of Complex D, along the same trail (Site T56), also on its *mauka* side (Figure 9). It consists of two

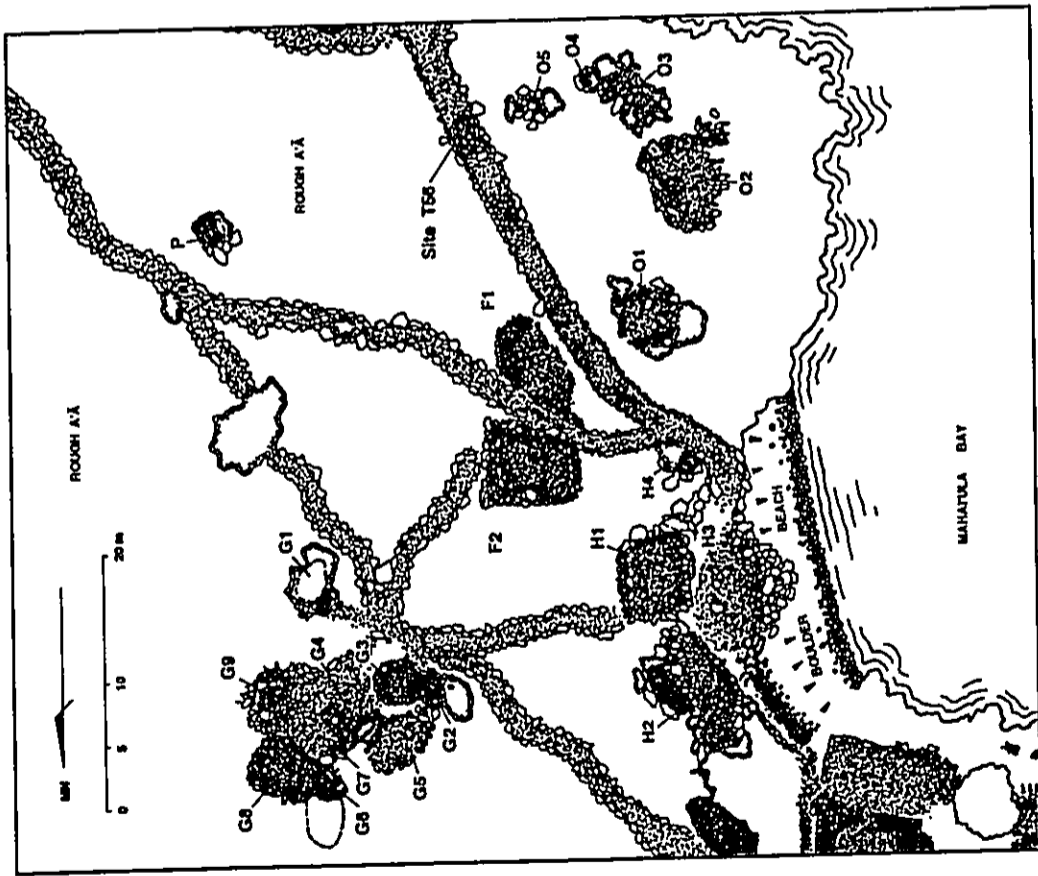


FIGURE 9: Detail of Complexes F-II, O and Feature P within Site T70. For overall site map, refer to fold-out Figure 7.

features, with a cleared foot trail separating the two: This trail, which contains intermittent stepping stones, is aligned north-south, connecting the trail to Kawili Point (T56) and the trail/jeep road to Makalawena (Site T1).

F1: This consists of an L-shaped shelter wall of stacked and piled cobbles surrounding a cleared and paved area. The wall is rather deteriorated, and has been broken along its long axis, apparently due to recent foot traffic. The long axis of the wall measures approximately 9 m long and parallels the coast, running northwest-southeast. From the southeast end of that wall, the short axis of the L-shape extends *makai* (southwest) at a 90-degree angle for 3 meters. The walls are roughly 60 cm high and 60 cm wide, but exhibit a great deal of collapse. An area paved with *a'a* pebbles, *'iif'ifi* and coral, measuring 6 m by 3 m, is sheltered by the wall.

F2: Located just north of F1 on the opposite side of the aforementioned foot trail, this feature consists of a platform of two levels, the upper of which is walled. The overall size of the feature is approximately 7.5 m (N-S) by 7 m (E-W). The feature steps down toward the ocean, and directly faces a boulder beach 15 meters *makai*. The lower platform is built up 40 cm above the surrounding ground surface with a facing of boulders. The surface area of this portion is approximately 4.5 m (E-W) by 2 m (N-S). The upper platform is defined by a 20 cm high single-stone facing on the *makai* side and a roughly stacked sheltering wall 40 cm high on the *mauka* (east) and north sides. The area of this upper division measures approximately 3.5 m (N-S) by 3 m (E-W). The *mauka* end of the overall feature extends beyond the sheltering wall, where it consists of a level filled and unpaved surface. The platform facing on the north side of the feature is as much as 140 cm high. Both divisions of the platform surface are paved with *a'a* pebbles, *'iif'ifi* and coral.

A foot trail extends from the *mauka* (east) side of F2 northeast to complex G, approximately 15 meters away.

Complex G: Four separate foot trails converge at this group of features, which is composed of several small shelters and a great deal of scattered surface midden indicative of habitation (Figure 9).

G1: This is the southernmost feature in the complex, situated in a natural depression. At the bottom of this depression is a small modified entrance to a rockshelter which is located beneath a very large bedrock boulder. The entrance is 100 cm deep and measures roughly 1 m (NW-SE) by 1.3 m (NE-SW). The subterranean portion of the shelter extends off the southeast side of the entrance and is roughly 2 m deep by 3 m wide by 1 m high. Within the shelter is a shallow soil deposit and shell midden. Additionally, a basalt flake, volcanic glass flake, and a single human molar tooth were noted on the surface within this feature.

G2: Situated 10 meters northwest of feature G1, this is a small, paved oval shelter/enclosure situated within a natural depression. The feature is entered from the south side via a narrow entrance. All but the eastern side of the feature consists of only slightly modified natural bedrock. The eastern side is a stacked cobble/small boulder wall which is shared with G3, serving as the western wall of that feature. The interior of G2 measures approximately 2 m (N-S) by 1.5 m (E-W), with a wall height of about a meter. It is paved with *a'a* pebbles, cobbles and a few *'i'i'i'i*, and contains scattered marine shell.

G3: Immediately adjacent to G2 on its east side, this is a roughly paved, square enclosure. It has an entrance in the southwest corner, and interior measurements of 2 m by 2 m. The interior paving is of *a'a* boulders and cobbles. The walls of the feature measure roughly 80 cm in height and width.

G4: This feature is on the northeast side of G3, and consists of a cleared/paved area sheltered by an L-shaped wall. The cleared area measures 2.5 m square, and is paved with *a'a* pebbles. The L-shaped wall is roughly 3 m on each side and is on the northwest and northeast sides of the paved area. Nicely stacked of cobbles and small

boulders, this wall is approximately 1 m high and 70 cm wide. Incorporated into the exterior of the northwest leg is a small cupboard containing shell midden.

G5: Feature G5 is a cleared and paved oval area defined by a border of boulders and cobbles, but no walls. It is located on the northwest side of features G3 and G4. It measures 5 m (NE-SW) by 3 m (NW-SE), and is paved with *a'a* pebbles.

G6: This is a small C-shaped shelter located 3 m northeast of G5. It is approximately 1.5 m wide by 1.5 m deep and is open to the southwest (*makai*). It utilizes the west wall of feature G8 as its eastern side. The interior of the shelter is paved with *a'a* pebbles.

G7: This feature is really just a cleared and paved area between features G4 and G8. The walls of those features essentially define the area, although there is a very rough, piled wall defining the northwest side of this clearing as well. The paving measures approximately 3 m square, and is paved with *a'a* pebbles. Marine shell is scattered on the surface.

G8: On the north side of G7 and the east side of G6 is a well-defined walled enclosure. The feature is entered via a break in the wall at the southwest corner. This rectangular enclosure measures roughly 4 m (E-W) by 2.5 m (N-S), and is paved with *a'a* pebbles. The walls, of stacked cobbles and small boulders, measure up to 120 cm in height and about a meter wide. The interior contains scattered midden as well as a little waterworm coral.

G9: This feature is immediately adjacent to the southeast side of G7. It consists of another small, modified depression, defined largely by natural bedrock. It is entered via a narrow trail on its west side, descending slightly onto a circular shelter measuring approximately 2.5 m in diameter. Its interior modified walls are up to 110 cm in height. A small cupboard appears to have been situated in eastern side of the feature, but has been obscured by collapse. The interior of the shelter contains

the densest midden deposit observed at the site within a shallow soil layer, including marine shell and visible fish bone. A few 'i'i'iii are scattered within the shelter as well.

Complex H: This complex consists of a grouping of three large platforms immediately adjacent to the ocean, at the back of a boulder beach (Figure 9). The most *makai* of the three (H3) has been severely eroded by wave action. The trail to Kawili Point (Site T56) presently traverses this feature, although it appears that it formerly passed *makai* of this complex. Complex H is located about 10 meters northwest of Complex F.

H1: This feature is a rectangular platform measuring approximately 6.5 m (N-S) by 5 m (E-W). It has a stacked boulder facing on the *makai* (west) side built up to a height of 70 cm. The other three sides of the feature are defined by aligned boulders which simply meet up with the natural land surface. The *makai* and north sides of the platform are filled with cobbles and small boulders in order to create a level surface. The majority of the platform surface is paved with *a'a* pebbles, 'i'i'ili, and waterworn coral. From the northeast corner of this platform, a cleared foot trail containing a few stepping stones heads south, ending at Complex G.

H2: Situated just two meters north of H1, this is a long, narrow, roughly rectangular platform backed by a high sheltering wall. Oriented at roughly a 45-degree angle to H1, the feature is approximately 10 m long (NW-SE) by 4 m wide (NE-SW). The *makai* (southwest) side of the feature consists of a rough boulder facing 50 cm in height, and the northwest side is stacked to a height of as much as 130 cm. The other two sides are poorly defined and consist largely of natural bedrock. The surface of the platform is made up of natural flat bedrock outcrops, boulder and cobble fill, and a paving of *a'a* pebbles, 'i'i'iii, and coral. Near the northern corner of the feature is a small pit (ca. 60 cm diameter by 50 cm deep). Along the *mauka* (northeast) edge of the platform is a high stacked wall approximately 4.5 m long by 150 cm high and 150 cm wide. This wall segment shelters the southeastern half of the platform.

H3: Situated *makai* of H1 and H2, directly overhanging a boulder beach at the edge of Mahai'ula Bay, is another large platform. This feature is poorly defined on its *makai* sides (southwest and northwest), having been impacted by erosion caused by the forces of the ocean. The surface of the feature presently measures roughly 7 m (NW-SE) by 5 m (NE-SW). The *makai* edges are marked by rough boulder and cobble fill, while *mauka* of this fill the surface consists of natural level bedrock and abundant 'i'i'iii and coral pebble paving. Due to the proximity of the ocean, it is possible that these materials were deposited during times of high surf. The rear of this feature is defined by the front facings of H1 and H2. The *makai* edge of the platform sits about 2 meters above the boulder beach, and is a combination of natural bedrock and boulder fill. This portion of the platform is very irregular, the former seaward limit of the feature cannot be determined.

H4: Immediately adjacent to the southwest corner of feature H1, this is a modified natural shelter that is only large enough to have functioned as a cupboard. With its opening facing *makai* (west), its interior measures approximately 2 m long by 80 cm wide by 120 cm high. The floor of the cupboard is of natural stone with a few scattered pebbles present.

H5: This is a small rockshelter located 4 meters south of H4, directly adjacent to the *mauka* side of the coastal trail (Site T56). A small modified natural *puka* in the bedrock provides entry to a small underground shelter. The entry measures approximately 2 m (NE-SW) by 1.2 m (NW-SE) by and is roughly 1 m deep. The subterranean portion of the shelter is off of the southeast side of the *puka* and is approximately 1.5 m deep by 2 m wide and 1 m high. There is marine shell scattered both within and around the exterior of this shelter. The interior is filled/paved with *a'a* pebbles and cobbles.

Complex J: This is not really a complex, but rather three unusual features in close proximity to each other whose relationship is unclear (Figure 10).

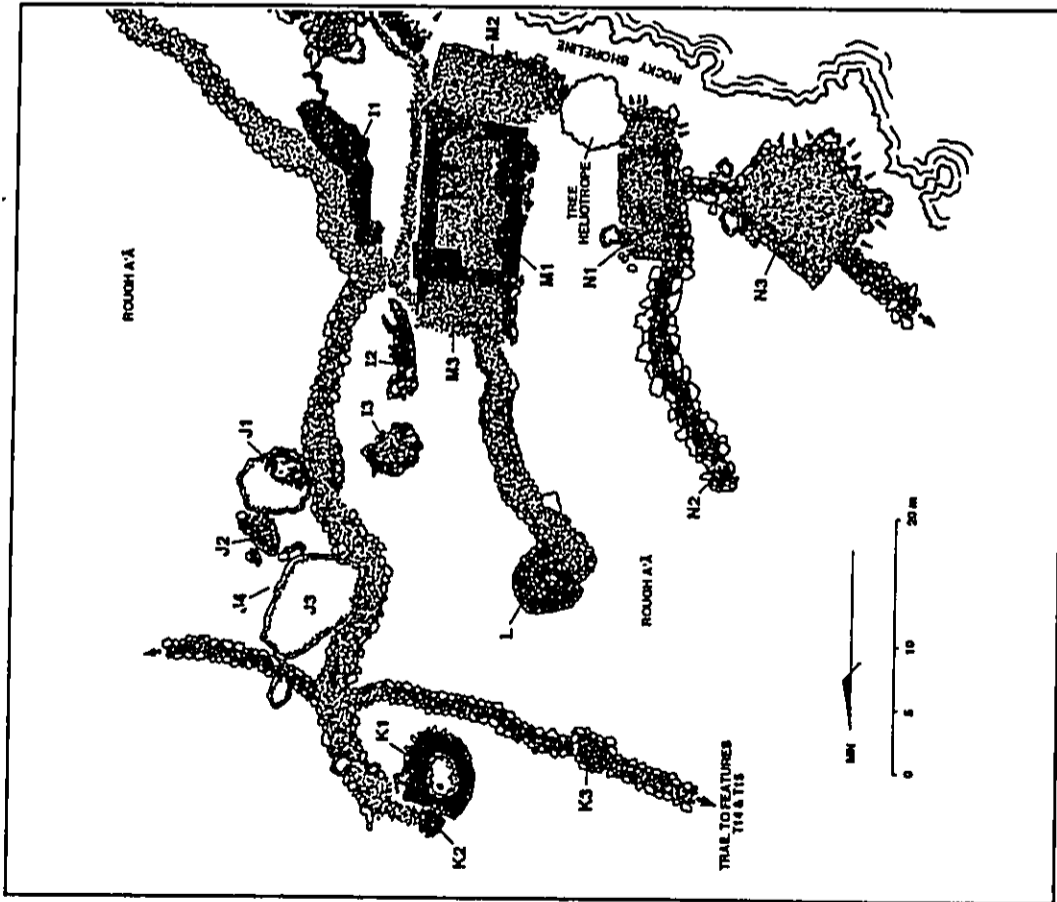


FIGURE 10: Detail of Complexes I-K, Feature L, and Complexes M-N within Site 170. For overall site map, refer to fold-out Figure 7.

I1: This is an irregular wall segment. It is unusual for its massive size, measuring up to 130 cm high on the makai side and up to 120 cm high on the mauka side. It is oriented roughly southeast-northwest, and narrows toward the northwest end, where it is collapsed. The southeast end meets natural bedrock, and near that end it is as much as 3 m wide. At the northwest end it is between 1 and 1.5 m wide. The wall is not particularly well constructed - it is roughly and irregularly stacked, utilizing mostly cobble-sized stones and a few small boulders. The wall is core-filled with cobbles, a few boulders and occasional waterworn coral. Also of note are two concentration of urchin along the base of the wall on the makai side. This wall is about 5 meters south of Feature M, a large enclosure (see below). A foot trail, with occasional paved sections and stepping stones, parallels the mauka side of feature I1, heading southeast to Complex G.

I2: This feature, located about 7 meters north of I1, consists of a roughly piled short cobble wall segment incorporating two pits and a cupboard. The wall segment is oriented roughly north-south, utilizes natural bedrock boulders in its construction, and is approximately 7 m long, 60 cm high, and 1.2 m wide. The eastern side of the wall is collapsed. At the southern end of the wall, a small cupboard has been constructed, opening to the south. It is roughly 1 m deep by 50 cm wide. Just beyond the opposite (north) end of the wall are two small pits, 60 cm deep by 50 cm in diameter and 70 cm deep by 80 cm in diameter.

At the approximate midpoint between the northern end of I1 and the southern end of I2, a stepping-stone foot trail originates and bears north, leading to Complex J and continuing on to Complex K. The total length of this trail is approximately 40 meters.

I3: Approximately three meters north of I2 is Feature I3, a deteriorated C-shaped shelter. This feature measures approximately 3 m by 3 m, open to the southeast. The southwest side utilizes natural bedrock in its wall construction and has an interior height of 90 cm. The back (northwest) wall has collapsed. The northeast

side of the feature is best preserved, with a roughly stacked cobble/boulder wall measuring 70 cm high on the interior, 100 cm high on the exterior, and 70 cm in thickness. The interior of the shelter contains boulder and cobble collapse from the rear wall, but is paved with *a'a* pebbles, and also contains a few waterworn basalt and coral cobbles, rare materials for this site.

Complex J: This complex, located on the opposite side of the foot trail from I3, consists of several very rough features located atop and between two extremely large bedrock boulders approximately 4 meters apart (Figure 10).

J1: This feature is an oval, piled-stone enclosure with an interior dividing wall built atop a boulder that protrudes two meters above the surrounding landscape and is approximately 5-6 meters in diameter. The enclosure, roughly constructed of cobbles piled no more than 30 cm high, occupies the southwest half of the boulder. The enclosure is approximately 4 m (NW-SE) by 2 m (NE-SW). A small wall segment divides the interior across its long axis, and a few stones are strewn about the interior of the enclosure. There is a scatter of *pipipi* shells atop the boulder, both within and outside of the enclosure.

J2: Between the boulder housing J1 and an even larger boulder to the north (J3) are a few very marginal features. J2 is a very rough C-shape with single-stacked/piled walls measuring approximately 3 m (N-S) by 1.5 m (E-W). The feature is open to the south (facing the large boulder). The walls of J2 are approximately 50 cm high by 80 cm wide. Its interior is roughly paved with *a'a* pebbles, and a couple of waterworn coral cobbles are present. Immediately adjacent to the feature, on its north side, is a roughly constructed pit, 40 cm in diameter by 50 cm deep. A second, more well-defined pit is just northwest of J2, built at the base of the large boulder J3. This pit measures 50 cm (N-S) by 80 cm (E-W) by 90 cm deep.

J3: This feature is actually a large natural boulder, extending about 2.5 meters above the surrounding landscape. The top of the boulder measures almost ten meters

across at its largest point, is fairly level, and has a very rough, weathered appearance with many pieces of stone broken away. This may be natural or due to some sort of human activity. There is marine shell (*pipipi*, cowrie, *opihii*) scattered across the top of the boulder as well.

J4: This is a poorly defined feature built up against the east side of boulder J3. It is simply a raised area of *a'a* pebbles and cobbles, neatly leveled off at the top, which measures approximately 4 m along the edge of the boulder (N-S) by 2 m wide (E-W). Its size and shape (roughly oval or rectangular) suggest that it may be a burial.

Complex K: The stepping-stone trail which leads from wall segments I past Complex J turns slightly to the west, and approximately 20 meters beyond Complex J terminates at another set of unusual features, Complex K (Figure 10).

K1: The main feature of this complex is an irregularly shaped platform built entirely surrounding a large natural circular bedrock boulder. The boulder protrudes 1.4 meters above the surface of the surrounding platform, thus rendering the platform essentially unusable for habitation. The boulder measures approximately 2.5-3 m in diameter, and has two stones stacked atop it. Completely surrounding the boulder is a nearly circular platform, faced to a height of up to 90 cm with cobbles and small boulders. The platform would be a complete circle, save for the north side, which is a straight-walled segment that essentially dissects the circle. The south and east sides of the platform are defined by a border of boulders which meet the natural ground surface. The net effect of this construction is the creation of a narrow "ledge" surrounding the boulder, 100-180 cm wide, which is meticulously leveled and paved with *a'a* pebbles. The unusual shape of this feature and the care taken to construct it suggest a ceremonial function. It is possible that it houses a burial or multiple burials. A single stone utilized in the wall facing on the northwest side of this feature has mortar attached to it. Although this stone was apparently brought from another area, and not mortared in place, it nonetheless suggests a historic age

for this feature.

K2: This is a walled pit feature adjacent to feature K1 on its north side, and appears to be related to feature K1. Situated at the base of the straight wall section of K1, the shape of the pit is nearly a mirror-image of that larger feature, with the pit having a straight wall on the south side, with the rest being circular in shape. The pit measures approximately 100 cm in diameter by 60 cm deep. The sides of the pit are nicely faced with small boulders and cobbles, and the base is paved in a similar style to the surface of K1. In addition, the area surrounding the pit is similarly leveled and paved.

K3: This feature is located about 10 meters west of K1, accessed via a narrow cleared foot trail through the *a'a*. This feature actually lies directly within that trail alignment, one must walk across the feature in order to continue westward along the trail. The feature consists of an oval outline of boulders surrounding a level filled area paved with *a'a* pebbles. It measures approximately 3 m (E-W) by 2 m (N-S). Its size and shape suggest it as a possible burial, although it would certainly be an unusual placement of such a feature (in the center of a trail alignment).

Feature L: Feature L is an isolated C-shaped shelter of very substantial construction, accessed via a well constructed trail leading from the *makai* end of Feature M (see below, and Figure 10). This C-shape, open to the west, has walls of stacked cobbles and small boulders measuring up to 130 cm high (both interior and exterior) and nearly 200 cm wide. Its overall size is approximately 5 m by 5 m, with interior dimensions of approximately 3 m (E-W) by 2 m (N-S). The interior is roughly leveled and the floor is of *a'a*, basalt and coral cobbles. A few large boulders are roughly piled at the rear wall inside the shelter. At its center is a small walled pit, 50 cm in diameter by 70 cm deep. In the top of the north wall near the open end is a small niche, circa 40 cm deep.

The trail that leads to the site from Complex M is approximately 20 meters long. It is roughly curbed, up to 1.5 m wide and paved with *a'a* pebbles, *'iif'iii*, and waterworn coral, as well as a few waterworn basalt cobbles. The northern end is paved with *a'a* pebbles and cobbles only. This trail is among the nicest of all the foot trails which interconnect throughout Site T70.

Complex M: This complex includes the largest and most complex feature in Site T70. It is located just a few meters from the rocky shoreline of Mahai'ula Bay, above the northern end of the boulder beach fronting Complex H, and just 5 meters west of the unusual wall feature I1 (Figure 10). Feature M1 is a large rectangular enclosure with interior features, with a connected platform *makai* (M2) and a walled, paved area *mauka* (M3) of the main structure. In addition, it contains evidence of rebuilding episodes, and historic modification.

M1: The main enclosure is oriented north-south with an entrance at the south (*makai*) end. It measures approximately 13 m (N-S) by 8 m (E-W) overall, with interior measurements of approximately 11 m by 5.5 m. Much of the structure is very well-preserved, with double-faced walls of boulders and cobbles and core-fill of cobbles and pebbles. The walls are as much as 150 cm in height. The east, north and west walls are 120-150 cm wide. The north (back) wall formerly had a 90 cm wide doorway in its center which has been filled in using a rougher construction style. The east wall is in an excellent state of preservation, while the north and west walls exhibit some collapse, especially the interior of the west wall. Due to collapse, earlier facings are visible within the walls at the southwest and northwest corners, indicating that the walls have been widened over time. The seaward (south) wall is narrower than the others and has been mortared with a white limestone material, probably a later modification in response to wave damage. There is a meter-wide entrance slightly east of center in that wall. West of that entrance, the mortared wall is 70 cm wide and well-preserved. East of the entrance, the south wall is damaged, and is little more than a linear pile of rubble extending to the southeast corner of the enclosure.

indistinguishable from the natural landscape 4 meters north of the back wall of M1. Between these two low walls is a flat area paved with *a'a* pebbles, *'i'i'i'i*, and waterworn coral and containing scattered midden. The northern edge of the paved area is poorly defined, and the southern side is marked by the back wall of M1. The area of the paving is approximately 6 m (E-W) by 4 m (N-S).

The trail to Feature L originates from the northwest corner of feature M3. Complex M is undoubtedly a habitation complex. The relative isolation and orientation (opening facing away from M) of feature L, combined with the structural components of that feature, suggest that it may have served as a *lua* (toilet) for the residents of Complex M. A similar feature is associated with Complex N (N3, see below).

Complex N: This Complex consists of a platform of two levels, a paved foot trail leading to a sheltered pit feature, and a second platform (Figure 10). It is located about 10 meters west of Complex M along the coastal trail (Site T56), which is very indistinct in this area of the site. Complex N is situated just a few meters from the rough, rocky shoreline of the bay.

N1: The main platform of this feature is rectangular, measuring approximately 9 m (N-S) by 5 m (E-W). It is built up on all four sides with a stacked boulder facing, to a maximum height of 70 cm on the west and north, but just 1-2 stones high (10-20 cm) on the east and south. The south (*makai*) side steps down 20 cm to a lower level, with a surface area of 5 m (E-W) by 3 m (N-S). The seaward wall of this lower platform has been eroded by high surf, but it still contains a rough facing with cobble fill behind it. The level surface of the platform is paved similarly to the other features in the site, with *a'a* pebbles, *'i'i'i'i*, and waterworn coral. In addition, there is a concentration of *'opi'i* shells at the rear of the platform. The southeastern corner of this feature is obscured by a tree heliotrope. The larger, upper platform is unusual for a couple of reasons. First, it has a rough paving of boulders two stones

The interior of the enclosure is level and paved with *'i'i'i'i* and waterworn coral, in higher concentration than is typical of structures at this site, as well as a smaller quantity of *a'a* pebbles. There is some marine shell scattered in the southeast corner, and a small *'i'i'i'i* bush near the southwest corner. In addition, three interior features are situated against the east wall of the enclosure. A short piled rock wall, 40 cm high, extends out 1.5 meters perpendicular to the east wall approximately 3 meters north of the southeast interior corner. Approximately 2.5 meters north of this wall segment is an imbedded alignment of waterworn boulders, also perpendicular to the wall. This alignment of 6 stones is 2.5 m long. Finally, nestled in the northeast corner of the enclosure is a small rectangular platform, measuring approximately 2.5 m (E-W) by 1.2 m (N-S) by 1 m high. It is roughly stacked of *a'a* boulders, and the top is covered with waterworn basalt and coral cobbles as well as large pieces of marine shell. A single upright boulder has been placed at its center. This feature appears to be a recent "altar." Between this feature and the imbedded alignment, the ground is covered with a crushed white powdery substance which may be limestone mortar residue as was used to reinforce the seaward wall of this structure.

M2: As mentioned above, connected platforms extend both *mauka* and *makai* of the enclosure. The larger of the two is the seaward (south) platform, which is rectangular and measures 5 m (N-S) by 10 m (E-W). This three-sided platform is faced with boulders on the east, south and west sides, to a maximum height of circa 80 cm, with its north side being formed by the front wall of the enclosure. The eastern wall of the platform is aligned with the east wall of M1, however the platform extends 2 meters beyond the west side of the enclosure. The coastal trail (Site T56) traverses this platform just in front of the enclosure.

M3: This walled and paved area extends *mauka* of enclosure M1. Its eastern and western sides are defined by low walls that extend directly off of the respective walls of the enclosure. These walls are approximately a meter wide and 20-40 cm high. The walls become less distinct as they extend *mauka* (north), and essentially become

wide along its front (south) and west edges, which may delineate a trail across its surface, making a right angle turn at the southwest corner of the platform, and exiting to the north at its northwest corner, continuing on to feature N2. On the east side of this "trail" near the northern end of the platform, is an alignment of small boulders. Parallel to this alignment about 1.5 meters east is a natural bedrock shelf. Between the alignment and the shelf is a pit, approximately 2 m by 1.5 m. This pit has been roughly filled in with large boulders. It is unclear if this "pit" was formerly leveled and paved like the rest of the platform, or if it served another purpose. The feature appears too shallow and the boulders too haphazardly placed to have been a burial. The rest of the platform is paved in the typical fashion of the features in this site.

N2: Similar to the trail leading to Feature L from Complex M, a nicely constructed foot trail leads *mauka* (north) 18 meters from the northwest corner of N1 to a walled pit feature, N2. The trail is nicely cleared and paved with a larger quantity of 'iif'ili stones than other features of the site, as well as *a'a* pebbles, waterworn coral, and a few boulders. At the terminus of the trail is a walled pit, 80 cm (N-S) by 130 cm (E-W) by 120 cm deep. It is afforded natural shelter by large upright slabs of lava. As with Feature L, the isolation and situation of this feature suggest it served as a *lua*.

N3: Just four meters west of Feature N1 is the westernmost feature of Site T70, a large square platform. N3 and N1 are connected by a roughly curbed and cobble-paved section of the coastal trail (Site T56). The trail leads from the center of the west side of N1 to enter platform N3 at its northeast corner. This platform is oriented at a 45-degree angle to N1 and at a right angle to the rocky coastline, which is just a few meters to the southwest. It measures approximately 10 m (NW-SE) by 10 m maximum (NE-SW). However the seaward (southwest) side of the feature has suffered much damage from high surf, and the southern corner of the platform is missing. The rear (northeast) and southeast sides are the platform are the most well-defined, consisting of stacked boulder facings up to 80 cm high, incorporating natural bedrock boulders. Additionally, the feature appears to have had a low wall

at the rear of the structure (circa 1 m wide), which is partially preserved at the northern corner. The northwest side of the platform is roughly defined by a border of small boulders and natural bedrock. The *makai*, damaged side of the platform is a combination of boulder fill and natural bedrock outcrops, up to 120 cm in height. The surface of the platform has a rougher paving than other features at the site, perhaps due to its close proximity to the ocean and the susceptibility to wave damage. The feature has a rough paving of *a'a* cobbles and pebbles, plus a small amount of 'iif'ili and coral. Portions of the surface are marked by rough bedrock. Along the northwest side of the platform surface is a concentration of corroded, flaky pieces of iron. The coastal trail to Kawili point (Site T56) continues northwestward from the northwest side of the platform. At this point it nicely paved with waterworn boulders and roughly curbed.

Complex O: These features are the only ones situated *makai* of the coastal trail (T56), on a small point of land southwest of Complex F (refer to Figure 9). This area is very rough, irregular *a'a*, and this group of features utilizes many natural boulders in its construction.

O1: This feature is situated directly across the trail from F1, and consists of a roughly rectangular enclosure measuring approximately 4 m (E-W) by 3 m (N-S). Its walls are very roughly stacked of cobbles and a few small boulders on the interior, 30-70 cm high. The exterior is generally formed by natural outcroppings. There is a narrow entrance to the enclosure at its northeast corner. The interior is paved with *a'a* pebbles, 'iif'ili, and coral, and also contains a few large boulders.

O2: This feature is located about 6 meters south of O1. It is a rather deteriorated U-shaped shelter, with an additional wall segment attached. The feature measures approximately 5.5 m (N-S) by 4 m (E-W), and is open to the ocean (west). Its walls are of roughly stacked cobbles and boulders which modify natural large bedrock boulders. The walls range in height from 20-120 cm. The exterior walls are poorly

defined or consist of natural bedrock features. The interior is paved with *a'a* pebbles, 'ili'ili, and coral, and also contains some piled boulders, possibly from wall collapse, especially against the back wall. A small cupboard is built into the northeast corner of the shelter. The opening is 40 cm in diameter and the cupboard is 80 cm deep (horizontally).

From the western end of the south wall of the feature, a remnant of a nicely constructed double-faced/core-filled wall extends *makai* for another 3 meters or so. On the northern side this wall is just one stone (10 cm) high, but due to the fact that it was built over a natural ledge, the southern side of the wall is several stones (70 cm) in height. The wall is a little over a meter wide and appears to have formerly extended further *makai*. Due to its different style of construction, this wall segment may be a remnant of an older, more substantial feature.

O3: Located about 3 meters southeast of O2, this feature is a largely natural formation of bedrock boulders which has been cleared and modified to create a small U-shaped shelter with a natural interior division. The feature is approximately 4 m (NW-SE) by 2.5 m (NE-SW), and open to the ocean side (southwest). The natural and artificial interior walls range from 60-180 cm in height. The interior is divided into two activity areas. The northwest half is formed by a raised natural level bedrock shelf which is paved with *a'a* pebbles, 'ili'ili and coral. This shelf is at a higher level than the adjacent southeastern half of the feature, which consists of a depression filled with *a'a* pebbles and cobbles, but not presently leveled or paved.

O4: A small pit is just outside of the eastern corner of Feature O3. This roughly triangular pit is approximately one meter on a side and 70 cm deep.

O5: About seven meters south of O3 is an isolated walled pit. This feature is roughly circular, 80 cm in diameter by 60 cm deep.

Feature P: This feature is a small isolated C-shaped shelter, located alongside a cleared stepping-stone foot trail through the lava that leads from Complex F southeast to meet up with the jeep road/trail (Site T1) to Makalawena (refer to Figure 9). Feature P is about 25 meters east of Complex F and 4 meters south of the trail, measures approximately 2 m (NE-SW) by 1 m (NW-SE) (interior dimensions), and is open to the northeast. The back wall of the feature is composed of a large naturally upright boulder that provides a small overhanging shelter. The side walls are of stacked boulders and cobbles, and the interior is roughly paved with *a'a* pebbles and cobbles.

17.1. Pōhaku o Lama

This feature consists of a natural stone in the shallow nearshore waters of Mahai'ula Bay. The stone has traditional significance attached to it (Ka'elemakule 1929, Forlander 1959 - see Historical Background, pp.15-16) and is still considered sacred by the descendants of the Ka'elemakule family, and is therefore being included in this inventory of archaeological sites for the park area. The exact dimensions and location of the stone have not yet been recorded - its placement on the site location map (Figure 6) is approximate.

Ahupua'a of Kaulana

The boundary between Mahai'ula and Kaulana ahupua'a roughly corresponds to the northern edge of the 1801 lava flow. Thus, the nearly all of the *makai* portion of Kaulana was covered by this massive lava flow which extends all the way to Ke'ahole Point. This flow destroyed nearly all vestiges of prehistoric archaeological features in Kaulana, and all of the sites described in this section date back no farther than 1801 with the exception of sites located on a narrow strip north of the 1801 flow, and possibly a few shoreline features.

The Ka'elemakule family burial plot (TMK 7-2-05:4), though technically excluded from the survey, is worthy of mention due to its prominent location nearly in the center of our project area (see Figure 6). This feature is located in Kaulana, approximately 1/2 mile directly *mauka* of Mahai'ula Bay. It is just north of the 1801 flow, in an older, weathered brown *pāhoehoe* flow. The one acre plot, which encompasses a cave known as Kolomikimiki, was purchased in 1903 by J. Ka'elemakule, Jr. At that time the corners of the parcel were marked by four *ahu* (Land Grant files, Land Management Division, State of Hawaii). It is not known how long the area was used for burial prior to that. The cave Kolomikimiki, however, has legendary significance dating to prehistoric times (Maly 1998).

Today the parcel is bordered by a dry-stacked stone enclosure wall around its perimeter constructed of locally available blocky *pāhoehoe* chunks, cobble to boulder-sized, faced and core filled. This wall averages approximately one meter in height by 80 cm wide, and it undulates, following the contours of the land. It is not known how recently this wall was constructed. Although the feature appears to be a perfect square, it actually measures 61 m (N-S) by 70 m (E-W). There is no evidence of the four *ahu* which marked the corners of the property prior to the building of the wall, so it can be assumed that these features were incorporated into the wall construction. The wall is in excellent condition. There is no entrance to the interior of the enclosure, but a two-stone high step outside the center of the west wall allows

access over the wall. The interior of the enclosure is marked by undulating brown *pāhoehoe*, just like the surrounding landscape. There are small sinkholes and lava bubbles which appear to be modified with stacked walls. It is assumed that these seal the burial areas. There are no typical historic grave-like structures visible within the enclosure. Offerings, in the form of *lei*, were visible inside the enclosure at the time of our survey. On the *mauka* side of the enclosure is a small scattering of marine shell.

II.6. Papamā

This feature is located on a cracked slab of *pāhoehoe* of the 1801 flow, just behind the beach in the area of the modern thatched house structure at Ka'eiehuluhulu. It is approximately 8 meters *makai* of Site T53. This *papamā* is deeply incised and nicely spaced, but it appears to be only 6 by 10 holes in size. A portion of it is slightly marred by white paint.

II.7. Complex

This site is located just back of the north end of Ka'eiehuluhulu Beach, within the strand vegetation characterized by a canopy of *kiawe* and understory of dense *naupaka*, grasses and vines. It consists of an apparent complex of walls, platforms, and possibly other features, all nearly completely obscured by the dense vegetation. No vegetation clearing was undertaken during the present survey, and therefore it was not possible to accurately evaluate the complex. The estimated size of this complex is circa 50 meters in diameter. Within this complex, several large portions of a shipwreck are strewn about (see Site T69). Further work is warranted in this area, as the complex is located just behind one of the most heavily used sections of beach in the park.

II.8. Enclosure

This is the most prominent archaeological site in this section of the park. It is located on the bare *pāhoehoe* of the 1801 lava flow, approximately 75 meters east of Feature T17. The feature consists of a high-walled enclosure which has been broken

on its *makai* and *mauka* sides, leaving two distinct wall sections (Figure 11, Photos 5 & 6). It was likely damaged by the force of the 1946 tsunami, as evidenced by the wreckage from a boat strewn about its exterior. The feature was built surrounding a shallow natural lava sinkhole. Two lava tube shelters have entrances within this sink, one on the southwest side and one on the northeast side. A 7 meter long section of wall remains on the southwest side of the sink, with walls up to 1.9 m in height and averaging 1.2 m wide at the base. Both ends of the wall are collapsed. This wall section is built above one of the tube shelters. A second wall section on the north side of the sink is 17.5 meters long, with a bend in the middle, curving along the edge of the sinkhole. The second tube shelter is directly beneath its eastern end. This wall section averages 1.4 m in width at the base and 80-100 cm wide at the top, and ranges from 130 to 220 cm in height. The feature is constructed of stacked, blocky small *pāhoehoe* boulders and large cobbles, roughly faced and core-filled. The western and southwestern portion of the feature have been obliterated. The stones which once composed those sections of the feature are scattered in rough piles throughout the sinkhole. The original size of the feature, based on the remnants, was approximately 15 by 9 meters, with walls over 2 meters in height.

This is undoubtedly the "high-walled pen" described by Reinecke in 1930 as part of his site 91 (see Previous Archaeology, above). This feature probably served as an animal pen, with the lava tube shelters providing the animals with shade. The extreme height of the walls suggest that it enclosed donkeys (the primary mode of transportation in this region in the early part of this century), horses, or possibly even cattle. The remains of several extremely eroded platforms built into the *pāhoehoe* are in the immediate area surrounding the feature, and may be those referred to by Reinecke (n.d.).

II9. Platform

This feature is located approximately ten meters *mauka* of Feature T18. It is built across a narrow, collapsed trough within the 1801 lava flow. The feature measures 4.5 m by 4.5 m by 1 m in height. Its southwest and northeast sides are stacked facings

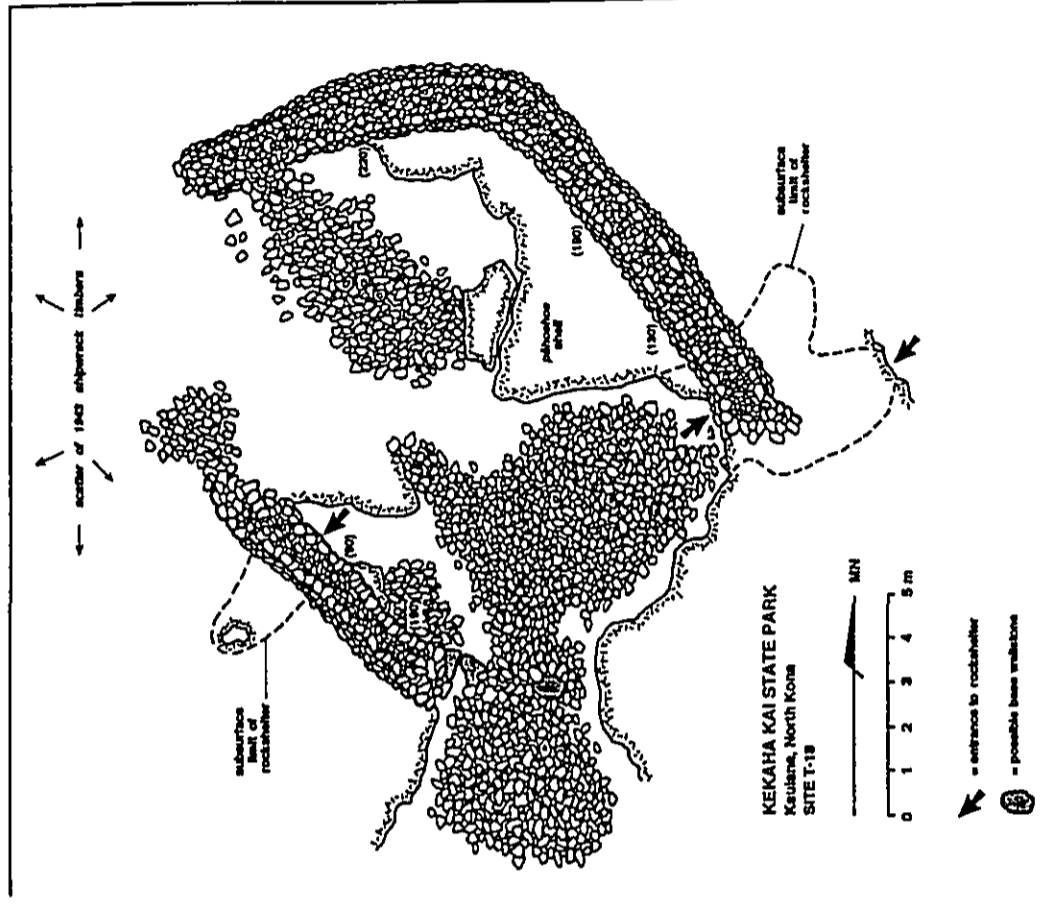


FIGURE 11: Detail of Site T18, Partially Destroyed Walled Enclosure.



PHOTO 5. Site T18. Partially Destroyed Enclosure. Note timbers in foreground from shipwreck.
View to southeast.



PHOTO 6. Site T18. Detail of wall construction and cave shelter beneath north wall of feature.
View to north.

(1 m and 90 cm high, respectively) built across the trough (Figure 12, Photo 7). The southwest facing is partially constructed of upright *pāhoehoe* slabs (Photo 8). The other sides utilize the sides of the trough, and consist of 1-stone high alignments. A rough paving of *pāhoehoe* cobbles and pebbles extends beyond the northeast edge of the platform. The surface of the platform is divided into two areas by an alignment of small waterworn boulders running parallel to the two faced ends of the feature. The southwest side measures 3.2 m wide and is paved with crushed *pāhoehoe* pebbles. The northeast side is 1.3 m wide, and paved with 'i'i'i'i pebbles (Photo 7). The size of these two divisions of the platform suggest that it may conceal two adjacent burials. This platform is in much better condition than any of the surrounding features, evidence that it may have been constructed post-1946, or that it was repaired following the tsunami of that year. This may be one of the features described by Reinecke (n.d.) as part of Site 91.

T20. Petroglyphs

Located roughly 20 meters northeast of Site T18 is a grouping of Hawaiian name petroglyphs carved into the smooth black *pāhoehoe* of the 1801 flow. There are at least five names carved in stylized block letters, and they are interesting in that they contain mirror-written words (Photo 9). Recognizable names include KAWAI (or KAMAII) and KAUJI. A few meters south is a single name which appears to read ELEELE in mirror-writing (Photo 10).

T21. Petroglyph

Located on the smooth *pāhoehoe* peninsula of the 1801 flow that entered the ocean between the present-day Ka'elehuluhulu and Mahai'ula beaches, this is a single Hawaiian name petroglyph near the shoreline. The first five letters are KAWIK. The name continues, but the rest of the letters were indistinguishable. The petroglyph is very shallow, and is probably being eroded by wave action.

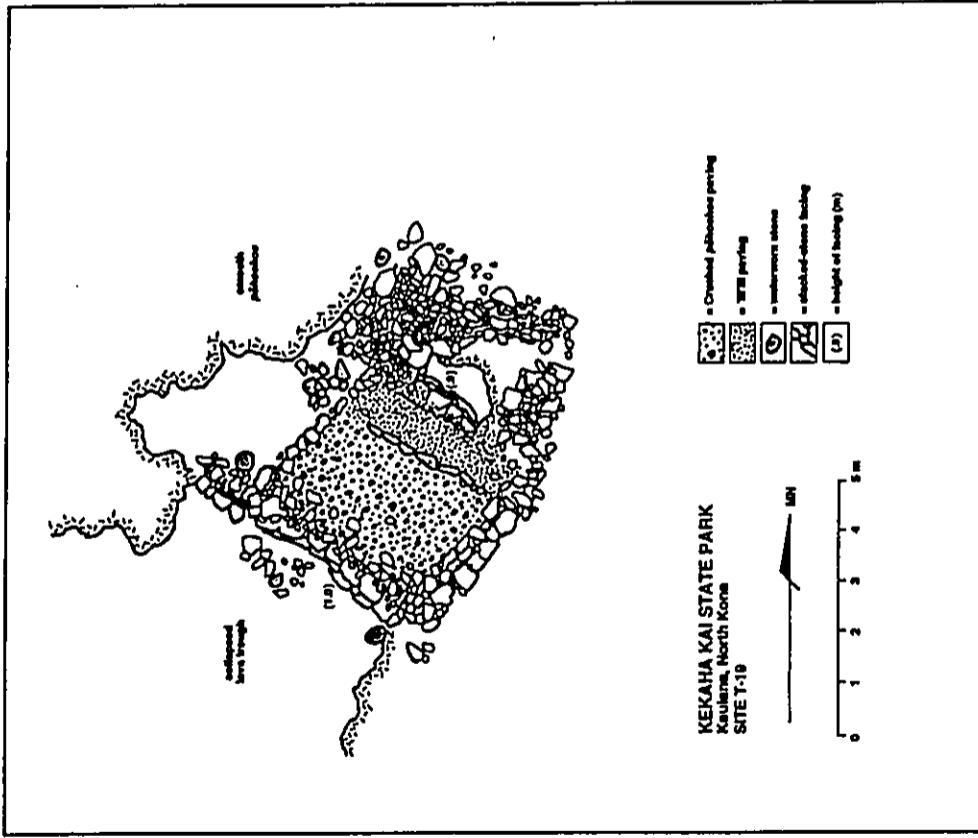


FIGURE 12: Detail of Site T19, Possible Burial Platform.



PHOTO 7: Site T19, Possible Burial Platform. Detail of north facing and platform surface. Note alignment of waterworm boulders separating paved areas, suggesting two burials. View to southwest.



PHOTO 8: Site T19, Possible Burial Platform. Detail of south platform facing, note upright slabs used in construction. View to north.

T22. *Papamū*

This feature is located 83 meters west of feature T21, just at the rear edge of the sand at the northern edge of Ka'eiehuluhulu Beach. It consists of a single, very faint *papamū* pecked into the 1801 *pāhoehoe*. This feature is likely being eroded by wave action, and is also probably intermittently covered by sand.

T23. *Papamū*

This consists of a grouping of at least four *papamū* situated near the shore on the eastern side of the lava peninsula between the two sand beaches, located approximately 30 meters southeast of Feature T21.

T24. *Papamū*

Located approximately 50 meters southeast of Feature T23 near the shoreline, Feature T24 consists of at least 2 *papamū* on the *pāhoehoe* of the 1801 lava flow. Situated 1.5 m apart, the smaller of the two is very deeply incised, but is only 6 by 6 holes. The larger one is extremely eroded and very difficult to make out.

T25. Complex

This is a complex of features, situated within a large flat area of 1801 *pāhoehoe* just back of the shoreline approximately 25 meters east of Feature T24. In this area, which covers roughly 25 meters in diameter, is the remnant of a stone and mortar foundation, marked by white colored mortar still adhering to the lava, as well as two cubical *pāhoehoe* chunks still set in the mortar. In the surrounding smooth area area at least three *papamū*, the largest of which is 15 by 12 holes and situated nearest the shore. Two others are 7 by 7 and 6 by 6. At least two Hawaiian name petroglyphs are also in the area, situated *mauka* of the foundation. Bulldozer scars mar the ground surface within this complex.

Undoubtedly this site corresponds with a portion of Reinecke's Site 91, which he described as "... a modern concrete and lava platform. **Papamū**, 15x12 rows



PHOTO 9: Site T20, Petroglyphs. Note mirror-writing used in Hawaiian names. View to northeast.



PHOTO 10: Site T20, Isolated Name Petroglyph. It appears to read ELEELE in mirror-writing. View to south.

(Reinecke n.d.).*

T26. Papamū

This is a small cluster of at least 3 *papamū* situated on the 1801 flow in the splash zone right at the shoreline. They are small and rather eroded, the largest is 8 by 8. They are located approximately 60 meters east of Feature T25.

T27. Petroglyph

Located roughly 50 meters *mauka* of Feature T25 and 25 meters east/southeast of Feature T28, in 1801 *pāhoehoe* vegetated with grasses and low-growing *kiawe*, this feature consists of a long Hawaiian name (or phrase) petroglyph incised in large (circa 20 cm high) letters. It either continues in a second line beneath the first or a second name or phrase is situated there. It appears to read:

ALOHAMAIIKAIIOEKA . . . [obscured letters]
ALOHAAI

T28. Platform

This stone-faced and paved platform is built within a shallow collapsed sink of the 1801 flow. The feature is located about midway between Features T27 and T20. The visible portion of the platform measures 6.2 m (NW-SE) by 7.5 m (NE-SW). It appears to continue on the northeast side, but that area is overgrown with dense, low-growing *kiawe*. Vegetation clearing would be necessary to fully evaluate the platform and possible associated features. The platform is roughly faced on three sides to a maximum height of approximately 70 cm, with a great deal of collapse. The fourth side (northeast) meets the edge of the lava sink in which it is constructed (Figure 13).

The surface of the platform contains four distinct paving styles. This differentiation in styles suggests that this platform may contain burials in each of the areas, although it is possible that they represent activity areas within a house platform.

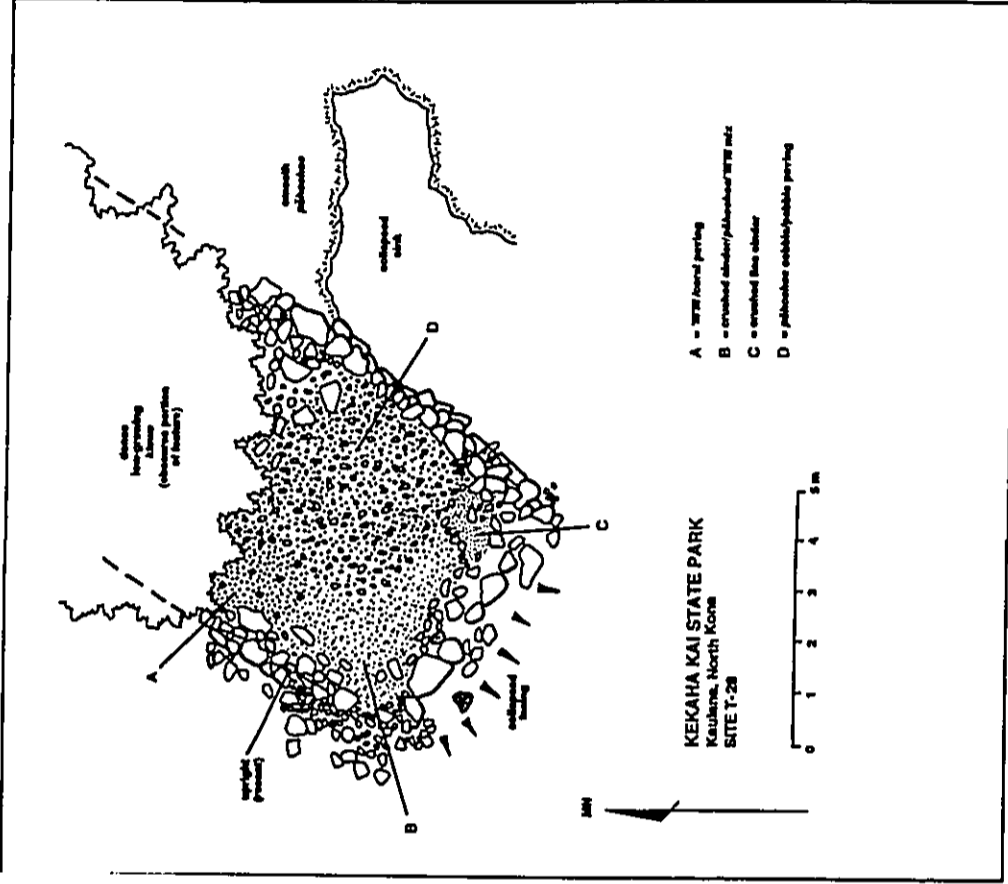


FIGURE 13: Detail of Site T28

T22. Petroglyphs

This is a grouping of Hawaiian name petroglyphs located approximately 50 meters southwest of Site T18 (the prominent high-walled enclosure). They are situated in a low, smooth area surrounded by rough lava bubbles. The names are indistinct and were impossible to decipher at the time of day they were encountered (midday).

T30. Petroglyph and *papamū*

This site is located 50 meters southwest of Site T29 and 20 meters east of Site T31. It consists of a single very distinctly incised Hawaiian name petroglyph in stylized block letters. The name is "T. NAAFUELU". Approximately 15 meters directly *makai* of the petroglyph is a roughly pecked *papamū*, 7 by 7 holes.

T31. Complex

This site is located atop a *pāhoehoe* rise, behind the *kiawe* grove at the back of Ka'elehuluhulu Beach, roughly 20 meters west of Site T30 and 30 meters east of the park access road. Its features are spread over an area 32 m (E-W) by 22 m (N-S), and the complex is marked by a group of small *kiawe* trees and fountain grass. This appears to be a habitation site. Marine shell is scattered throughout the site area, and there appear to be two low, partially paved platforms at the *makai* edge of the site, constructed at the edge of a natural dropoff of the lava flow. Midden eroding from one of these platforms suggests the presence of cultural deposits within the structure. The most impressive feature of the site, however, is a large, deeply incised *papamū* measuring 15 by 13 holes, the nicest example of a *konane* board that was encountered during the survey (Photo 11). It is located slightly *mauka* and west of the afore-mentioned platforms. Three additional *papamū* are spread around the perimeter of the site. They each measure circa 9 by 9 holes and are much less distinct than the larger one.

This site was recorded by Reinecke in 1930 as a portion of his Site 90.

T32. Complex

This complex begins just south of the most southerly Magoon Estate buildings, within the *kiawe* grove that backs Mahai'ula Beach *makai* of the park service road. It consists of some very rough features obscured by vegetation - walls and a possible platform constructed of very blocky *pāhoehoe* boulders. Also of interest in this area are several lava tree molds, believed to be within the 1801 lava flow. Additional marginal features continue throughout the *kiawe* grove to the southwest. There are also a number of low-ceilinged lava bubble shelters, which are probably too small to have been utilized for habitation. No midden was observed in any of them. This complex appears to extend all the way to Site T33, spanning a distance of perhaps 100 meters paralleling the shoreline.

T33. Wall and *Papamū*

This site is just south of Site T32, also in the *kiawe* thicket at the rear of Mahai'ula Beach, roughly at the center of the beach. It consists of a 31 meter long wall which parallels the shoreline (running northeast to southwest), atop the bare *pāhoehoe* of the 1801 lava flow. The wall is constructed of angular chunks of *pāhoehoe*, double faced and roughly core-filled in places. Several sections are collapsed while others are nicely preserved (Photo 12). The wall is 60-100 cm wide and up to approximately 100 cm in height. At its northeast end, it abruptly ends and a collapsed barbed wire fence heads directly *makai* for a few meters, where it meets an additional very short section of collapsed stone wall. On the opposite end (southwest), the wall turns abruptly *makai*, extending seaward for 6 meters, where it ends at a mortared section of wall with a square concrete "postmold" within it. This postmold and the corresponding barbed wire at the opposite end of the site suggest that it was used as an animal pen. However, two *papamū* situated roughly 9 meters *makai* of the wall midway along its length suggest a different earlier use of the area. One of these *papamū* is nicely incised and is 9 by 8. The second, just to the west, is very indistinct. The wall and *papamū* measuring 9 by 8 may correspond to a portion of Reinecke's Site 92, which he described as simply "wall and modern house ruins. *Papamū*

mauka, (?) 9x8. (Reinecke n.d.)”

T34. Petroglyphs

These features are located approximately 25 meters southeast of Site T31, atop the same natural lava rise of the 1801 flow. A Hawaiian name petroglyph, with the recognizable letters "LUAHIN..." and several crude geometric shapes are outlined by piled small pieces of *pāhoehoe* plus a few small waterworn boulders and cobbles. There is also a fair amount of marine shell scattered throughout the area.

T35. Petroglyphs

This small petroglyph field is located approximately 50 meters *mauka* of the park service road providing access to the former Magoon Estate area. The well worn foot trail (Site T39) passes on the north edge of this site. The petroglyphs here appear rather crude, and consist of several Hawaiian names, a human figure a double "X" and what appears to be a fishhook. Some of them may be recent. They cover a small area of very smooth *pāhoehoe* perhaps 15 meters in diameter, and number about 20.

T36. Petroglyphs

This is a small grouping of five Hawaiian names located approximately 60 meters northwest of Site T35, and immediately adjacent to foot trail T39. This is on the *makai* side of the park service road and just behind the *kiawe* grove marking the back of Mahai'ula Beach. A single name is also situated about 10 meters *mauka* of this grouping.

T39. Trail

This is a very well-worn *mauka-makai* foot trail that traverses virtually the entire project area, from the southern project area boundary just below the highway to the northern end of Mahai'ula Beach. This trail was originally recorded by Ching (1971) during the Quaeen Ka'ahumanu Highway alignment survey as Feature 1357. The subsequent highway construction destroyed that portion of the trail which crossed

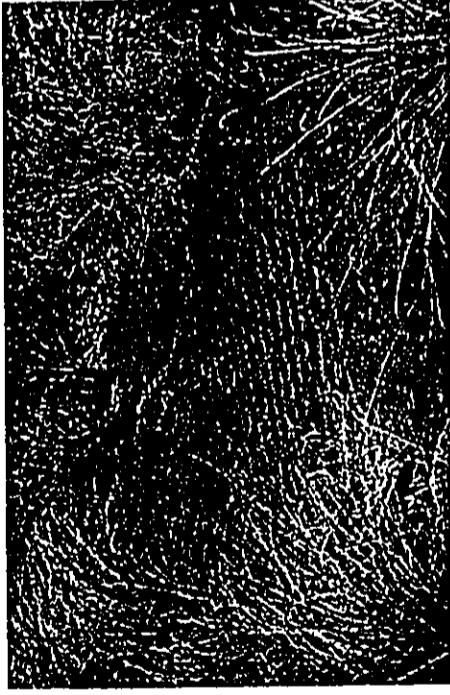


PHOTO 11: Site T31, Large Deeply-Indused Papahānaeʻa. Part of small habitation complex. View to northeast.



PHOTO 12: Site T39, Intact Section of Wall. View to southeast.

the alignment. The trail can still be followed *mauka* of the highway, and apparently this trail formerly connected Mahai'ula and Hu'e'hu'e, as evidenced by the following account of Molly Kunewa Dunnaway:

Oh there were so many trails. Sometimes we'd go down over the hills Ka'upulehu side. Sometimes we'd go down to Mahai'ula or right down to Makalawena from Hu'e'hu'e [Springer 1986, in Donham 1986].

Today the trail shows up as a well-worn, winding track through the smooth *pāhoehoe*, discolored brown against the black and gray surrounding lava. In some small areas the surrounding lava is lighter in color (orange to brown), and in these areas the trail is black in contrast to the lighter *pāhoehoe*. Along the length of this trail, dozer tracks can be seen intermittently, particularly along the *makai* reaches of the trail, indicating that a bulldozer was driven down to Mahai'ula along this established route at some time in the past.

I40. Petroglyph Field

This is by far the most impressive group of petroglyphs in the project area. Unlike all of the other petroglyphs recorded, this field is situated well *mauka*, approximately 1.25 mile (2 km) from the ocean. It surrounds the well-worn *mauka-makai* foot trail (Site T39) which traverses the length of the project area. It is most easily accessed by following the trail down from the highway. The site is 190 meters *makai* of the highway along the trail. A prominent *ahu* built atop a lava bubble is also situated within the field and is visible from some distance. It is believed that this petroglyph field is the same one alluded to by Reinecke (1930) and recorded by Ching as Feature 1359, which he described as:

an *ahu* measuring 1.2 m by 1.3 m by 1.2 m high, constructed of stacked *pāhoehoe* with the base stones faced. Located atop a *pāhoehoe* bubble on the north edge of trail Feature 1357, with petroglyphs located along the base of the *ahu* [Ching 1971].

Ching's description is accurate for the northern portion of this site, but it appears

that his team overlooked a large area of the petroglyph field. The bulk of the petroglyphs extend south of the raised lava bubble on flat, grayish-yellow colored *pāhoehoe*. The field covers an area roughly 40 meters in diameter. The grouping on the lava bubble includes both Hawaiian names and human figures, and these appear to be layered, indicating a possible long use of the area. The larger flat area to the south of the lava bubble and *ahu* is dominated by Hawaiian names (circa 30+ units). In addition there are a large number of other figures, including human figures, circles and dots, and at least two large sailing ships (Photos 13 & 14). Most have been pecked and the letters are stylized block letters. These petroglyphs appear light yellowish-brown against the gray of the *pāhoehoe*. This area also appears to have some layering, with older petroglyphs having been incorporated into later, more elaborate ones. The total number of petroglyphs at Site T40 is estimated to be over one hundred. Future work is absolutely necessary here to completely document this site.

Hawaiian names, some of which are mirror-written, at Site T40 include "ELI KAULAHAO", "MUALILII" (or "M. HALILII"), "KAHOLLOPIO", "KAONOHII", "KUEMAKA", "KEUN" (U is upside down), "OKA", "HAKUAI", "K (?) MAKIKOLO", "LIPILII", "HOINO", "ALOHAEHANO", "LEIAU", "M (?) WELA", AND "KAPE" (P is upside down). Many are quite difficult to decipher, which can be aided or hindered by the angle of the sun.

T41. Modified Sinkhole Complex

Located approximately 50 meters southwest of the southwest corner of the Ka'elemakule family cemetery, this complex of features is situated around and within a large, shallow sinkhole approximately 30 meters in diameter. This is within the older, brown *pāhoehoe* flow north of the 1801 flow. The overall size of the complex is 39 meters (N-S) by 46 meters (E-W). Within the sink are three roughly constructed features situated against its northern edge - a low C-shaped wall, a low straight wall section perpendicular to the sinkhole edge, and an overhang shelter partially created by a natural fallen slab of which rests vertically at the edge of the



PHOTO 13: Site T40, Petroglyph Field. Hawaiian names and geometric figures.

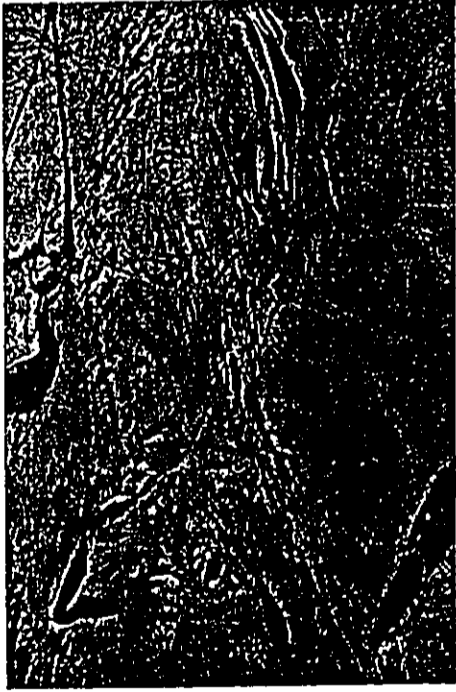


PHOTO 14: Site T40, Petroglyph Field. Sailing ships and other forms.

sink, but which has been additionally modified with a short stone wall. There are scattered shellfish remains throughout the sinkhole (cowrie, *pipipi*, cone, urchin), with a higher concentration within the walled shelters. The latter shelter has a particularly high quantity of urchin remains. Goat remains (recent) were also present in the area. There are scattered piles of rock rubble and possible filled-in areas within the sink as well, perhaps the result of quarrying activities. Three small *ahu* are present just outside of the sinkhole on the north, northwest and northeast sides. A fourth *ahu* is situated on a natural rise between this site and the cemetery enclosure. Finally, just outside the sinkhole to the south is a small U-shaped shelter, open toward the sink (north). It is constructed of large upright *pāhoehoe* slabs. This feature is just 9.5 meters north of the edge of the 1801 lava flow. All of the wall and *ahu* features of this site are constructed of broken *pāhoehoe* chunks, cobble-sized to an occasional boulder.

T42. Complex

This complex is located approximately 200 meters *makai* (northwest) of the cemetery. It is composed of at least nine features, including six *ahu*, two U-shaped shelters, and a central double U-shaped shelter, all constructed of small *pāhoehoe* slabs. The shelters are partially paved. The complex is situated on the older, brown *pāhoehoe* flow to the north of the 1801 flow. The shelters are all open to the west, and utilize portions of small, natural sinkholes in their construction. The overall size of the complex is 33.5 meters (N-S) by 37 meters (E-W).

T44. Trail

This is apparently a secondary *mauka-makai* trail traversing the project area. Only a short segment of the trail was mapped with GPS readings due to time constraints (approximately a 200 meter stretch). According to park ambassador Casey Cho, who walked a greater length of the trail, it branches off of the main *mauka-makai* trail (T39) somewhere near the coast, veering southward of that trail as it heads *mauka*. Whether it reconnects with T39 or continues to a different destination has not been determined. T44 was not mapped at all south of the park access road. As with

Feature T39, the trail shows up as a well-worn, winding track through the smooth *pāhoehoe*, discolored brown against the black and gray surrounding lava. Dozer tracks were visible approximately 8 meters north of the trail at the *makai* extent of the mapped segment.

T42. Trail Remnant

Remarkably similar to a trail remnant found in Makalawena approximately a kilometer to the northeast (Feature T63, above), it is possible that these two remnants are part of the same ancient trail. This remnant section is located approximately 40 meters southwest of Site T42. This remnant is indicated by a bridged natural trough in the rough *pāhoehoe* flow. The trough measures approximately 2 meters across. It has been filled and paved with flat pieces of *pāhoehoe*. The trail remnant is approximately 1.5 m wide, and is faced on either side to a maximum height of about a meter. There is additional flat stone slab paving atop the lava flow to the southwest of the bridged trough, approximately 1 meter wide. A small *ahu* in line with the trail alignment is adjacent to the edge of the 1801 flow, which is just 30 meters distant to the south. This trail is oriented 80°-260° (magnetic), and thus roughly parallels the shoreline, but tends slightly *mauka* as one heads north. Additional small deteriorated remnants were noted to the northeast of the bridged section. There is no evidence of this trail having continued atop the 1801 flow, suggesting that it predates that flow and its use was discontinued prior to or after the eruption.

T51. Pool

The pool is located in a *kiawe* thicket just on the south side of the parking area at Ka'elehuluhulu Beach, approximately 20 meters back of the sand. It is conspicuous for the fact that it is nearly perfectly circular, situated in a natural sinkhole in the 1801 lava flow. It measures 7 meters in diameter, and is modified with some stacked stone around its perimeter. The pond contains aquatic plants and supports a population of guppies.

T52. Walled Ponds

This is a shallow pond located just *makai* (north) of the parking area at Ka'elehuluhulu Beach. A coconut grove and deteriorating picnic area, as well as several structures, including a replica of a thatched Hawaiian *hale*, lie to the southwest of the pond. All of these are believed to be associated with the commercial tours offered here in the 1970s. The *mauka* (southern) edge of the pond is formed by the 1801 lava flow, which appears to have stopped just short of completely overrunning the pond. The present pond measures 41 m (E-W) by 35.5 m (N-S), and is roughly triangular in shape. Several low, deteriorated interior walls divide the pond into four separate areas. Another retaining wall appears to have defined the pond exterior, although in places this wall is not visible. An historic freestanding wall surrounds the *makai* portion of the pond. This wall was constructed using mortar, and has been recently repaired by State Parks.

The pond has been silting in and the amount of water in the pond fluctuates greatly with the changing tides. This silting in of the pond has partially obscured many of the interior features, and it is difficult to determine the relative ages of all of these pond features. Additionally, portions of the pond are covered with dense grasses, and this growth seems to foster the filling in of the pond. This pond is routinely visited by the endangered Hawaiian stilt (*ae'o*) and other native waterbirds.

This pond was referred to as a remnant of Kaulana fishpond by William Kikuchi in his inventory of Hawaiian fishponds (Kikuchi 1973: Site # H27).

T53. Complex

This site is located approximately 20 m south of the parking area at Ka'elehuluhulu. It is heavily disturbed, impacted by grading of roads on 3 sides, and the 4th side (*makai*), faces the area used by the 1970s tour company. This site is partially obscured by a dense *kiawe* thicket, further hampering evaluation of this area. The *mauka* (east) end of the complex is defined by a low, broken wall of *pāhoehoe* chunks. The *makai* end of the complex is marked by a relatively well constructed rock wall

7.6 m long with a narrow entryway, which also has two side walls extending at right angles *mauka*, but they end after 4.5 m (east) and 2.4 m (west) respectively, giving the effect of an incomplete enclosure. These walls appear to be recent; within the space enclosed by them is a pen constructed of orange plastic fencing. The overall size of this complex is 38 m (N-S) by 29 m (E-W). The remainder of the complex is a jumble of stones, both waterworn beach boulders and angular *pūhoehoe* chunks, with modern trash strewn throughout. A few features are visible within the site, including low wall segments and a possible platform. Disturbance to this area is so great that accurate evaluation of the site is not possible without considerably more effort, including vegetation clearing and removal of overlying stones to reveal buried features.

This site is probably a portion of the site described by Reinecke in 1930 as Site 90. Site T16 (*papamū*) is located approximately 8 meters *makai* of this complex.

T54. Salt Pans

This site is the southernmost site recorded in the project area. It is located very near the shore, approximately 40 meters north of the southern park boundary. The complex is composed of twelve concrete salt pans, eleven of which are contiguous, and a twelfth set off alone to the south. The complex of eleven connected pans measures 24.5 m (*mauka-makai*) by 14.7 m (E-W). The pans are arranged 4 deep (*mauka-makai*) by 3 wide, and there is no pan in the northeast corner. Each pan measures approximately 6 m by 5 m. All of the pans were bordered by low concrete walls (circa 10 cm high by 10 cm wide) to contain the water, but these have all been broken by vandals. Chunks of these walls are strewn throughout the site. A rusted and discontinuous water pipeline is situated near the southeast corner of the pan complex. This pipe leads off to the southwest, toward the ocean, and apparently formerly transported water from the sea to fill the salt pans. From this southeastermost pan, the water flowed *makai* to fill the rest of the pans, as the pans are stepped downward from *mauka* to *makai*, the lowest being those closest to the ocean. *Makai* of the three pans closest to the sea is a concrete-lined pit, nearly

totally obscured by beach cobbles, which may have served as a runoff or overflow catchment. In place of the missing pan in the northeast corner is an alignment and paving of waterworn boulders, suggesting that there may have formerly been a structure in this location. A single pan is situated 6 meters to the south of the large pan complex. This feature measure 4.8 meters square and is constructed of a different concrete material than the main group of pans, suggesting that it may not be contemporaneous. Additionally, all of the side walls of this lone pan are still intact, making it the best preserved example of this type of salt pan in Kaulana.

This site was recorded by Reinecke in 1930 as part of his Site 90.

T64. Petroglyphs

This is a grouping of Hawaiian name petroglyphs on the southern slope of the raised lava outcrop upon which Site T31 is situated. The petroglyphs start approximately 5 meters southwest of that site. Many are indistinct and unreadable, and some are mirror written. There is also a small *papamū*, 4 by 5 holes. Recognizable names include LUHIA..., KALA (mirror-written), and AKAAW. There appear to be approximately 10 names or partial names making up the grouping.

T65. Petroglyphs

This site is located approximately 100 meters *mauka* of the park service road on the south side of the Magoon house complex. Three incomplete name petroglyphs are etched into the very edge of the 1801 lava flow where it overruns the earlier *pūhoehoe* flow to the north. The letter M, a K followed by an incomplete letter, and the string of letters KAL are all that make up this site.

T67. Trail

This site consists of a rough foot trail running *mauka-makai* through the 1801 lava flow. This trail is the third such foot trail located on this flow within the project area. However, unlike trails T39 and T44, this one is very indistinct and could not

be followed for a great distance. This trail was encountered on the southern side of the park access road and the recognizable portion was followed for a length of just 135 meters. The area in which this trail is situated is an early phase of the 1801 lava flow, which has a very rough appearance and is orange-brown in color. This gives the impression of a much older flow, which must be an illusion created by a different flow composition or rate of cooling. The trail is indicated as a narrow, blackened footworn path through the aforementioned rough, orange-brown *pāhoehoe*. This path is also cleared of small chunks that litter the landscape. Due to the relative indistinctness of this trail, it is likely that it was used for only a short period of time, perhaps being abandoned after the establishment of trail T39.

T69. Shipwreck

This boat was wrecked on the reef and apparently was washed into its present location by the 1946 tsunami. Present in the *kiawe* are a large portion of the deck with intact hatches and canvas deck cover, as well as the main smokestack, all obscured by *kiawe* and creeping *naupaka*. The tree canopy seems to be serving to protect the wreckage from the damaging effects of the sun. The engine and several other parts of the boat are still underwater just offshore. The force of the tsunami spread pieces of the boat throughout this area. Many are strewn about on the bare *pāhoehoe* to the north of the grove, including a section of the bow and the transom. The wreckage extends all the way to Feature T18. The three largest pieces of the wreck are as follows:

A: A large upright section, believed to be a portion of the deck, rests against a *kiawe* tree and is nearly completely covered by beach *naupaka*. It is located just back of the portable toilets on the east side of the parking area at Ka'elehuluhulu.

B: The central wooden deck portion and smokestack lie concealed and relatively protected in the grove of *kiawe* behind Ka'elehuluhulu Beach to the east of the park parking area. Due to its being protected from the sun, this

portion of the wreck still contains canvas decking material, painted battleship gray, on its surface.

C: Just east of the *kiawe* grove obscuring Section B, on the exposed *pāhoehoe* lava of the 1801 flow, another section of the wooden deck rests on its side. This section appears to be the bow section of the deck (Photo 15). Additional small pieces of the wreck are strewn across the lava between this deck section and Site T18, some 85 meters away to the east.

This wreck was investigated as part of the 1997 University of Hawaii summer session Maritime Archaeology field school, taught by Hans Van Tilburg. The class mapped the locations of all of the visible portions of the wreck, both on land and in the water. Part of the goal of the class is to determine what ship these pieces belong to. It is believed that they represent the wreckage of a U.S. Navy sampan which was wrecked offshore in 1943, and that fact is in the process of being confirmed (Pete Hendricks, pers. comm.). A report of the field school's findings will be prepared and submitted to the State Historic Preservation Division (Van Tilburg, pers. comm.).

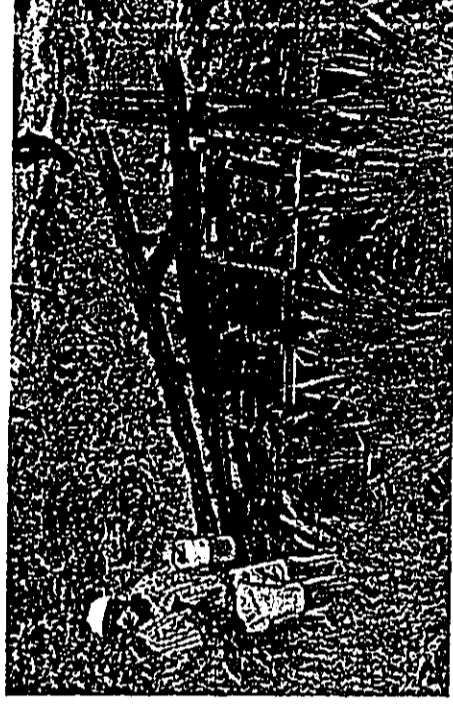


PHOTO15: Site T69, Deck Section of Ship Wreckage. View to west

CONCLUSION

Discussion of Findings

These preliminary findings are based on observations in the field, limited by the level of recording. They are likely to change following subsequent investigations. Archaeological testing should occur during the inventory phase of this project, which may provide materials for analysis and dating, allowing for more accurate functional and temporal interpretations.

Seventy one sites were identified during the reconnaissance survey. The majority of these sites (41) consist of a single feature, but the remainder (30) are composed of multiple features, and the total number of features which make up those sites is at least 368. Several sites will require additional survey including vegetation clearing to determine if they contain additional features (Sites T17, T29, T32 and T43). Additionally, at several sites, the number of features was estimated. The most notable of these are Site T37, a multiple-use complex estimated at circa 25 features, and Site T40, a petroglyph field estimated to contain + 100 petroglyphs.

Two sites of a single feature each (T60, anchialine pool and T63, trail remnant) are situated in Makalawena, just north of the project area boundary. The remaining features represent 28 formal feature types. The frequency of these feature types are summarized by *ahupua'a* in tables 2 and 3.

The frequency of feature types is dramatically different between the two adjacent *ahupua'a*. The obvious reason for this contrast is the presence of the 1801 lava flow covering most of Kaulana. This flow represents a time marker for archaeological sites. All of the sites built atop this flow are historic, representing roughly the last two centuries of land use in the *makai* section of Kaulana. There are a few sites in Kaulana along the shoreline and on the northern edge of the *ahupua'a*, which are beyond the limits of the 1801 lava, which may date from the prehistoric period.

TABLE 2: Formal Feature Type Frequency, Ahupua'a of Mahai'ula*

Sinkhole shelter	13	U-shaped shelter	4
Enclosure	11	Excavated/cleared pool	4
Platform	11	Natural pool	3
C-shaped shelter	11	Curbed trail	2
Rock-lined pit	10	L-shaped shelter	2
<i>Ahu</i>	10	Burial platform	2
Paved trail	8	Ground stone depression	2
Stepping-stone trail	6	Well	1
Cleared/paved area	6	Midden scatter	1
Wall	5	Natural stone	1
Walled pond	5	<i>Papamii</i>	1
Cupboard	5	Petroglyph	1

* This does not include the features of Site T37 (circa 25 features), which were not inventoried. Similarly, several other sites contain more features than were recorded which will only become apparent through additional survey and vegetation clearing.

TABLE 3: Formal Feature Type Frequency, Ahupua'a of Kaulana*

Petroglyph	156	Enclosure	2
<i>Papamii</i>	22	Burial platform	2
<i>Ahu</i>	11	C-shaped shelter	1
Wall	7	Excavated/cleared pool	1
Platform	5	Walled pond	1
Cleared/paved area	5	Paved trail	1
U-shaped shelter	1	Historic salt pan complex	1
Worn foot/horse trail	3	Mortared stone foundation	1
Shipwreck remnant	3	Sinkhole shelter	1

* As at Mahai'ula, several sites contain more features than were recorded which will only become apparent through additional survey and vegetation clearing.

Mahai'ula

Inland sites in Mahai'ula, predominantly sinkhole shelters and small walled shelters appear to represent prehistoric temporary habitation features. Some of the shelters closest to the shore were utilized for other purposes historically, most notably as trash dumps. All of these temporary habitation features were found within 500 meters of the shoreline, although the methodology of the survey in this area likely prevented the discovery of all such features. Ching (1971) did record five temporary habitation features and a burial cave circa 2500 meters inland. Inland trail remnants paralleling the shoreline also appear to have gone out of use before western contact.

The nearshore sites back of Mahai'ula Bay appear to have suffered greatly from both natural forces and historic disturbance. This area was the primary settlement area throughout this century, and sites there have suffered accordingly. Several sites in this area are obscured by heavy vegetation and will require further investigations to evaluate their condition, function and age.

Site T70, which was thoroughly documented during this survey, appears to be a habitation complex representing the late prehistoric/early historic period. Some features at the southern end of this site complex were utilized well into this century. Historic use is indicated by the limestone mortar used in Features K1 and M1. Additional shoreline sites north of T70 need further evaluation to make temporal and functional determinations.

Kaulana

The most common features recorded in Kaulana are petroglyphs (-156) and *papamū* (22). This indicates that these features continued to be fashioned in the historic period (which is also indicated by the numerous name petroglyphs). The vast majority of sites in Kaulana are within 200 meters of the shoreline, and indicate historic habitation in this area. The shoreline area of Kaulana appears to have been abandoned as a settlement by the end of the nineteenth century. However, the area

continued to be used for activities such as salt manufacture and commercial recreation activities well into this century. Several sites in this area are heavily overgrown with vegetation and need further work before assumptions can be made as to their age and function. Some of the sites nearest the shore may have been spared the wrath of the 1801 lava flow and may therefore date from the prehistoric period.

The only inland sites recorded on the 1801 flow are *mauka-makai* trails and a petroglyph field along one of those trails. North of the historic lava flow, several temporary habitation sites were located. This would seem to indicate that use of inland features ceased at or prior to 1801, as no similar features were reconstructed following the lava flow event.

Preliminary Significance Evaluations

As the archaeological sites documented in this survey are all within Kekaha Kai State Park (or in areas to be managed by the Parks Division), they will naturally be afforded certain protections which they would not necessarily be eligible for if they were located on lands slated for intensive development. The developments proposed for the park are very minimal and are being planned with the greatest sensitivity for the cultural sites located there. While not all of the sites located may be considered eligible for nomination to the State and National Registers once information (detailed mapping, testing, etc.) has been gathered about them, it is the intent of the Division to preserve all of the cultural resources located in the park. Virtually all of these recorded sites have important cultural and interpretive value that will greatly enhance park programs. The development of interpretive materials will emphasize both the natural marine and geological features of the area, as well as the cultural features, and efforts will focus on educating the public about the importance of preserving and protecting those resources for future generations. Developments of a scale necessary to accomplish the park goals can easily be planned around all existing cultural sites. Essentially all of the sites located

are being deemed significant for their information content⁵. Further research at these sites may provide information about regional settlement patterns, feature functions and chronology, particularly changes that occurred post-1801. In addition, 23 sites are believed to be significant based on two or more criteria. The site inventory for this survey as well as these preliminary significance assessments are summarized in Table 4. Briefly, those sites preliminarily determined to be significant for multiple criteria include the following:

T10: This large *ahu* or small platform located at the rear of a storm beach at the northern end of Mahai'ula contains a large amount of coral placed atop it, apparently as offerings. This type of offering would be consistent with use of the feature as a *ko'a*, or fishing shrine. As such a religious site, this feature would have traditional cultural significance to native Hawaiians (criteria E).

T18: This high-walled oval enclosure is unusual for its shape and the height of its walls. It is believed to be an animal pen, and may have served to pen donkeys, which were an animal used for transportation in the nineteenth and early twentieth century in Kona. As such it may represent an excellent example type of feature unique to the region (criteria C).

T19: This is a paved platform built within a natural small lava sinkhole. Its size and shape suggest that it is a burial platform, possibly housing two burials (criteria E).

T20, T21, T27, T29, T30, T34, T35, T36, T64, T65: These are all petroglyph sites, containing Hawaiian names etched into the *pāhoehoe*. As none of these names have been researched and their purpose is unclear, it is believed that they are of traditional cultural significance to native Hawaiians, and in particular to descendants of those who inscribed them (criteria E).

⁵ We have used NHRP criteria for significance plus Hawaii SHPD criteria E.

T28: As with T19, this is a paved platform built within a natural small lava sinkhole. Its size and shape suggest that it is a burial platform, possibly housing multiple burials (criteria E).

T31: This small habitation complex includes a *papamū* that is the nicest one recorded for the project area. It's large size and deeply incised depressions qualify it as an excellent example of that feature type (criteria C).

T37: This complex contains numerous features apparently representing temporary habitation, storage, agricultural and burial functions. It is believed to be an excellent example of a multiple-use complex associated with the adaptation to extreme leeward environments (criteria C). The possible burials make the site eligible based on a third criteria (E).

T39: This well worn foot/horse/donkey trail is an excellent example of a *mauka-makai* trail of this type in this region (criteria C).

T40: This petroglyph field is the largest and most impressive in the project area, containing both pre-contact type human forms, contact-period forms (ships) and historic period names, which are the dominant forms. These features combine to make this an excellent example of an historic petroglyph field (criteria C), and the names and figures may have traditional cultural significance to native Hawaiians (criteria E).

T52: This rather unassuming small pond may be the most significant site in the survey area. Recorded as a remnant of the great Pa'aiea Fishpond, it is significant based 4 of the 5 criteria, being associated with broad patterns of our history (criteria A), has specific connections to Kamehameha I and the Goddess Pele (criteria B), for information content (criteria D), and has traditional cultural significance to Hawaiians (criteria E). It also serves as a

habitat for native plants and endangered waterfowl.

T54: These historic salt pans probably date to early in this century. They represent a fine example, and one of very few in the region, of pans of this type (criteria C) and are associated with the intensification of a traditional craft in response to the introduction of a market economy.

T69: This feature consists of a portion of a shipwreck believed to be washed ashore during the 1946 tsunami. Preliminary research indicates that it belongs to a U.S. Navy sampan wrecked in 1943. If this proves to be the case, it would have an association with World War II, and would therefore be eligible for nomination under criteria A.

T70: This site, the largest and best preserved habitation complex in the project area, contains evidence of multiple functions (permanent and temporary habitation, agriculture, burial). As such a well preserved example it is eligible under criteria C as well as criteria E for containing possible burials.

T71: This natural 'akua stone situated in Mahai'ula Bay is associated with traditional worship (criteria E).

TABLE 4: Summary of Sites Recorded in Project Area

ITEM NUMBER	SITE/FEATURE TYPE	# OF FEATURES	FUNCTIONAL INTERPRETATION	PRELIMINARY SIGNIFICANCE EVALUATION	RECOMMENDED ADDITIONAL TREATMENT
T1	paved trail	1	foot travel	D	preservation
T2	pool	1	fresh water source	D	preservation
T3	stepping-stone trail	1	foot travel	D	preservation
T4	ahu	1	marker	D	preservation
T5	ahu	1	marker	D	preservation
T6	ahu	1	marker	D	preservation
T7	ahu	1	marker	D	preservation
T8	ahu	1	marker	D	preservation
T9	ahu	1	marker	D	preservation
T10	ahu/platform	1	possible ko'a	D, E	detailed recording/mapping
T11	platform	1	temp. habitation	D	detailed recording/mapping/testing
T12	C-shaped shelter	1	temp. habitation	D	detailed recording/mapping
T13	pool	1	bathing (modern)	D	preservation
T14	complex	4	temp. habitation	D	detailed recording/mapping
T15	enclosure	1	temp. habitation	D	detailed recording/mapping

* Criteria for significance (Hawai'i and National Registers of Historic Places):

- A = Association with events that have made an important contribution to broad patterns of our history.
- B = Association with famous people or Hawaiian deities.
- C = Be an excellent example of a site type.
- D = Have yielded or is likely to yield information important for research on prehistory or history.
- E = Have traditional cultural significance to an ethnic group.

TABLE 4 (continued)

T16	popamã	1	recreation/ education	D	detailed recording/mapping
T17	complex	3+	habitation	D	detailed recording/ mapping/testing
T18	enclosure	1	animal pen	C, D	preservation
T19	platform	1	burial	D, E	preservation
T20	petroglyphs	6+	art/ritual	D, E	detailed recording/mapping
T21	petroglyph	1	art/ritual	D, E	detailed recording/mapping
T22	popamã	1	recreation/ education	D	detailed recording/mapping
T23	popamã	4+	recreation/ education	D	detailed recording/mapping
T24	popamã	2+	recreation/ education	D	detailed recording/mapping
T25	complex	6+	habitation/ recreation	D	detailed recording/mapping
T26	popamã	3+	recreation/ education	D	detailed recording/mapping
T27	petroglyph	1	art/ritual	D	detailed recording/mapping
T28	platform	1	burial	D, E	preservation
T29	petroglyphs	2+	art/ritual	D, E	detailed recording/mapping
T30	petroglyph/ popamã	2	recreation/ education	D, E	detailed recording/mapping
T31	complex	6+	habitation/ recreation	C, D	detailed recording/mapping
T32	complex	2+	habitation	D	detailed recording/mapping
T33	wall/popamã	3+	habitation/animal pen/recreation	D	detailed recording/mapping

TABLE 4 (continued)

T34	petroglyphs	4+	art/ritual	D, E	detailed recording/mapping
T35	petroglyphs	ca. 20	art/ritual	D, E	detailed recording/mapping
T36	petroglyphs	6	art/ritual	D, E	detailed recording/mapping
T37	complex	ca. 25	habitation/burial/ storage/agriculture	C, D, E	detailed recording/ mapping/testing
T38	shelters	2	temp. habitation	D	detailed recording/mapping
T39	trail	1	foot/horse travel	C, D	preservation
T40	petroglyph field/ahu	ca. 100	art/ritual/ marker	C, D, E	detailed recording/mapping
T41	complex	8+	temp. habitation/ poss. quarrying	D	preservation
T42	complex	9+	temp. habitation	D	preservation
T43	modified sinkhole	6+	temp. habitation	D	preservation/ additional survey
T44	trail	1	foot/horse travel	D	additional survey/mapping
T45	complex	3+	habitation	D	detailed recording/ mapping/testing
T46	modified sinkhole	3	temp. habitation	D	preservation
T47	trail remnant	1	foot/horse travel	D	preservation
T48	popamã	1	recreation/ education	D	detailed recording/mapping
T49	depressions	2	unknown	D	detailed recording/mapping
T50	platform	1	recreation (modern)	D	detailed recording/mapping
T51	pool	1	bathing (?)	D	detailed recording/mapping
T52	pond	1	aquaculture	A, B, D, E	detailed recording/ mapping/coring

RECOMMENDATIONS

TABLE 4 (continued)

		5+	habitation	D	detailed recording/mapping
T53	complex			D	detailed recording/mapping
T54	salt pans	13	historic salt manufacture	C, D	detailed recording/mapping
T55	wall	1	boundary marker	D	detailed recording/mapping
T56	paved trail	1	foot travel	D	preservation
T57	stepping-stone trail	1	foot travel	D	preservation
T58	pool	1	fresh water/bait gathering	D	preservation
T59	pool	1	fresh water/bait gathering	D	preservation
T60	pool	1	fresh water/bait gathering	D	preservation
T61	ahu	1	marker	D	preservation
T62	ahu	1	marker	D	preservation
T63	trail remnant	1	foot/horse travel	D	preservation
T64	petroglyphs	ca. 10	art/ritual	D, E	detailed recording/mapping
T65	petroglyphs	3	art/ritual	D, E	preservation
T66	pool	1	fresh water source	D	preservation
T67	trail	1	foot/horse travel	D	preservation
T68	pool	1	aquaculture/bait gathering	D	preservation
T69	shipwreck	3+	transportation	A, D	detailed recording/mapping
T70	complex	60+	multiple-use	C, D	testing
T71	'akua stone	1	traditional worship	D, E	detailed recording/mapping

A development plan is presently being prepared for Kekaha Kai State Park. Preliminary discussions with the State Parks Development branch have identified two areas where initial park improvements will be constructed. The first of these locations is the area surrounding the parking lot at Ka'elehuluhulu beach, where the heaviest park use presently occurs. Improvements planned for this area include the demolition of existing delapidated picnic facilities and buildings associated with the commercial use of the area in the 1970s. These facilities will be replaced with new picnic tables and one or more shelters. Additionally, new toilet facilities are to be constructed to replace the present portable toilets which service the area. Identified sites within this general area include Sites T16, T17, T30, T31, T34, T50-54, T64 and T69. Additional work will be required at all of these sites to adequately document them at the inventory level and to determine if subsurface testing is possible and/or required during that phase of investigations.

The second area slated for immediate development of park improvements is the historic house complex situated at the northern end of Mahai'ula Bay. The project will consist of rehabilitating one or more of the existing buildings, constructing walkways in order to make the facilities accessible in fulfillment of the Americans with Disabilities Act (ADA) requirements, and constructing a new restroom to service visitors to this area of the park. It is unlikely that construction activities in this area would impact any archaeological sites, as the area immediately surrounding the house complex is heavily disturbed by historic activities related to development of the housing complex. Recorded sites in this area include T48, T49 and T50. Very little work will be required to update the survey of this area to the inventory level, and if improvements are limited to restoring existing features, additional survey may not be necessary.

After the project areas are more accurately defined through completion of construction plans, an inventory level survey of these two areas, including test

excavations where possible, will be conducted by the State Parks archaeologists. A research design for proposed archaeological testing in conjunction with this inventory survey will be submitted to the Historic Preservation Division for approval prior to any excavations taking place. Work at sites outside of the proposed development areas which were identified in this report as needing additional attention will be conducted if time allows in conjunction with this inventory survey, but such work is not a priority at this time.

The remainder of the sites in this section of the park should be monitored for impacts due to park use and evaluated for additional research value in conjunction with the development of an overall interpretive plan for Kekaha Kai State Park. In particular, archaeological testing should occur at Site T70 in the future in order to answer research questions and to aid in the preparation of interpretive materials for that area. Additionally, sites that are outside of the proposed inventory survey areas, but are within anticipated heavy-use areas of the park, should be more adequately recorded and mapped in order to appropriately monitor the impacts of park use and site visitation. These sites include T10-15, T20-29, T32, T33, T35-38, T45, T48-50, and T66.

If the *mauka-makai* trail traversing Kaulana (Site T39) is opened up to public foot traffic, a complete documentation of the extensive historic petroglyph field (T40) along this path should be conducted prior to allowing heavy site visitation.

Several features have been tentatively identified as burials. These include Site T19, T28, and Features J4, K1 and K3 within Site T70. Additional possible burial features were noted within Site T37, however the features of that site were not inventoried during this study. This site should be more adequately recorded and evaluated for cultural value as well as interpretive and research potential. These sites should be treated as burial areas. They should be monitored for site disturbance, and protective devices, such as site protection signage and fencing, should be installed if necessary to cut down on public disturbance of these areas. Also falling into this

category is the walled enclosure encompassing the Ka'elemakule family burial cave in Kaulana. A Burial Treatment Plan will be prepared by State Parks for the known burials, possible burials and future inadvertent discoveries.

All of the sites documented in this survey have been tentatively found to be significant for at least one criteria. Most are significant solely for their information content. Most, if not all, also have value as interpretive features within the park. It is recommended that all of the features recorded during this survey be preserved as examples of prehistoric and historic sites within the Kekaha region. There are startling differences in site types in the two adjacent *ahupua'a* of Mahai'ula and Kaulana. This contrast, and its relationship to the historic lava flow covering most of Kaulana, could be a major interpretive story told at the park. Even in the areas proposed for development, site density is low enough that all sites can be preserved while allowing for all of the planned park improvements.

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Appendix L

Kekaha Wai 'Ole o Na Kona

Archival and Historical Documentary Research, and Oral History Interviews

GROUP 70

HiKe-10 (030498)

**PLANNING
LIBRARY**

“KEKAHA WAI ‘OLE O NĀ KONA”
**A Report on Archival and Historical
Documentary Research, and Oral History
Interviews for Kekaha Kai State Park**

***Ahupua‘a* of Kaulana, Mahai‘ula, Makalawena,
Awake‘e, Manini‘ōwali, and Kūki‘o, District of
North Kona, Island of Hawai‘i
(TMK Overview:7-2)**

BY

Kepā Maly • Cultural Resources Specialist

PREPARED FOR

*George Atta, AICP
Project Manager
Group 70 International
925 Bethel Street, Fifth Floor
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MARCH 4, 1998

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Kepā Maly, Consultant**

*Historical & Archival Documentary Research • Oral History Studies • Partnerships in
Cultural Resources Management • Developing Preservation Plans and Interpretive Programs*

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Executive Summary

Overview

At the request of George Atta, AICP–Project Manager with Group 70 International, on behalf of the Department of Land and Natural Resources–Division of State Parks (DLNR–DSP), Kepā Maly, Cultural Resources Specialist (*Kumu Pono Associates*), conducted historical and archival documentary research and an oral history study for lands within the Kekaha Kai State Park. The park consists of the *makai* (seaward) portions of the *ahupua'a* (land divisions) of Kaulana, Mahai'ula, Makalawena (in the vicinity of the ancient shoreline trail), Awake'e, Manini'ōwali, and Kūki'o in the region traditionally known as Kekaha, in the district of North Kona, Island of Hawai'i (TMK Overview Sheet:7-2).

The park itself, includes approximately 4.5 miles of shoreline and 1600 acres of land. Legendary and historic literature tell us that the lands within the park study area were among the favored lands of the larger Kekaha region. Protected coastal communities with access to potable water, canoe landings, rich fisheries, and inland agricultural field systems attracted native residents to the area. Beginning as early as the 19th century, archaeological sites and places of cultural importance were being recorded along the coast and inland of the Kekaha Kai State Park area. The historical-archival documentary research and oral historical interviews reported in this study are meant to supplement findings of both past research and the present archaeological work conducted by DLNR–DSP archaeologists (Carpenter et al., 1998). The primary goal of the study herein, is to help DLNR–DSP finalize plans for long-term care and protection of the park's diverse cultural and natural resources, and to help formulate the basis of an interpretive program for Kekaha Kai State Park.

Archival and Oral Historical Research

The historical and archival documentary research for this study was conducted between August 7th to October 17th, 1997. It is noted here, that this study does not duplicate all that has been previously written in archaeological and ethnographic studies about the park lands and greater Kekaha region. Instead, this study references some of the pertinent documentation, and then focuses on recently translated native Hawaiian accounts—written by former residents of Kekaha (some of whom lived within lands that are now a part of the park)—and historical records which have been recently identified as valuable sources of information for the study area lands.

The study also includes interviews from several oral history studies conducted or transcribed by the author (interview records in this study cover the period from c. 1985 to 1998. A total of eleven interviews with fifteen participants are included in this study. The interviews add important documentation to the historical record of the park lands and larger Kekaha region.

Findings and Recommendations

As a result of the literature research and oral historical interviews, a rich ethnographic resource has been collected for the lands Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o. Legendary and historical accounts provide *ahupua'a*-specific documentation of sites, practices, and customs associated with the families and lands now included within Kekaha Kai State Park. The interviews also demonstrate the continuation of certain aspects of traditional knowledge and practices associated with the lands, as handed down over the generations. Interviewees express a deep "cultural attachment"[†] to the lands, sites, resources, and place names of Kekaha.

[†] "Cultural Attachment" embodies the tangible and intangible values of a culture—how a people identify with, and personify the environment around them. It is the intimate relationship (developed over generations of experiences) that people of a particular culture feel for the sites, features, phenomena, and natural resources etc., that surround them—their sense of place. This attachment is deeply rooted in the beliefs, practices, cultural evolution, and identity of a people. (continued on next page)

Recommendations elicited during the oral history interview discussions provide the Division of State Parks with suggestions for long-term management objectives, including historic site preservation, protection of natural resources, and interpretive programs in the park...

- 1 - "Kekaha Kai" is not a name that the *kūpuna* used for the land—the name "Kekaha" already tells people that it is a coastal zone. It is requested that the Division of State Parks simply use the regional name "Kekaha" — i.e. Kekaha State Park.
- 2 - In follow-up to the preceding recommendation, there is a strong cultural attachment and historical pride among the *kūpuna* for the native place names of lands within the park—be they *ahupua'a* names or names which identify specific locations. It is requested that the Division of State Parks use the individual *ahupua'a* and other place names throughout the park—at interpretive wayside stations and in interpretive and educational materials.
- 3 - Protect Kolomikimiki, the Ka'elemakule burial cave parcel, described as "Burial Lot" (Lot 2) in Royal Patent Grant 4723 to John Kaelemakule Jr. (May 27, 1903), as is. The parcel was conveyed to the Catholic Church (Bureau of Conveyances Liber 16700:375-376 & Liber 17586:225, 234) without full family concurrence on November 3, 1982.

It is requested that the State of Hawai'i and Division of State Parks monitor land tenure of the "Burial Lot." Should the Catholic Church ever seek to dispose of Kolomikimiki, Ka'elemakule family members would like to be notified. The Ka'elemakule descendants and *kūpuna* who participated in this study support any efforts that the State of Hawai'i may make to incorporating Kolomikimiki into the larger Park parcel and protecting it in perpetuity.

Because of the sensitive nature of the site, it is asked that Kolomikimiki be monitored and that visitation to the site be limited to family members. But, because of the rich traditions of Kolomikimiki, its stories—without specific locational references—should be a part of the parks interpretive program.

- 4 - In conjunction with the above recommendation, it is urged that all additional archaeological sites—including others that are tentatively identified as burial features be protected (cf. Carpenter et al. 1998).
Also, caution is urged in opening access to the park resources. The "infrastructure" for monitoring and maintaining park resources needs to be developed in conjunction with provisions for increased access.
- 5 - It is noted that "*Kalāhikiola*," the c. 1882, Ka'elemakule house is an important historical/cultural feature—a part of the cultural landscape of Mahai'ula—with a rich history attached to it. It's restoration and protection is important to the history of the land.
- 6 - The resident park steward program which has been initiated in the park, is a good one. The on-site presence will help park users understand the unique history of Kekaha, and inform them of appropriate use and visitation of the park's natural and cultural resources. It is requested that the Division of State Parks continue to support the program.
- 7 - Pōhaku-o-lama (also referred to as "Pōhaku-wahine" the female rock), situated off-shore, fronting the old Ka'elemakule house, is a sacred site and important

The significance of cultural attachment in a given culture is often overlooked by others whose beliefs and values evolved under a different set of circumstances (cf. James Kent, "Cultural Attachment: Assessment of Impacts to Living Culture." September 1995).

cultural feature. It is requested that Pōhaku-o-lama be protected—e.g. there be no diving and playing from the stone, and boats not be allowed to anchor to the stone etc.

- 8 – It is requested that the Division of State Parks work with other State Agencies to ensure protection of the Kekaha fisheries. Marine resources in the park:
 - (a) need to be protected from commercial aquarium fish collectors; and
 - (b) subsistence fishing as practiced by native Hawaiian fishermen needs to be protected.
- 9 – Sites and resources of the coastal region are directly tied to those of the uplands. It is recommended that interpretation of the cultural and natural resources of the park include the broader, native *ahupua'a* management system — an integrated resources management approach.

It is also urged that the interpretation of the traditions and history of Kekaha and the park lands be inclusive of the diverse accounts of the land. Even in cases, where one account may differ from another, there is richness in the diversity, and the accounts help to demonstrate the dynamic qualities of the culture.
- 10 – Caution is urged in development of a landscaping plan. Should native species be planted to replace alien plants, prudent thinning of the existing overstory should be undertaken so as to protect the new plantings, giving them time to become established. It is also noted that the *kiawe* has become a part of the landscape, and that it has a role in the lands of Kekaha.
- 11 – The Division of State Parks is to be commended for its efforts in working with *kūpuna* and families who have generational residency ties to Kekaha and the park lands. It is asked that this work be continued, and that consultation occur as a part of the management and decision making processes in Kekaha Kai State Park

There is also one additional request from the families who participated in the November 8, 1997 interview at the Magoon Beach House at Mahai'ula. DLNR-SHPD video technician, Clifford Inn, recorded the proceedings on video camera. That interview record is housed at DLNR-DSP, Honolulu. Pursuant to the verbal agreement with DLNR-DSP on November 8, 1997, The tape is restricted—it has not been edited and released for public viewing. The interviewees and their families withhold authorization to use of the tape until such time as it is granted in writing (following editing and interviewee review); at which time, interviewees will also receive a copy of the video recording.

ACKNOWLEDGMENTS

Preparation of this study was made possible because many people agreed to come together and to share in the process of contributing to its completion. The study presents some of the early Hawaiian histories of the land, and glimpses into the personal knowledge and experiences of individuals with genealogical attachments to the lands of Kekaha—including descent from families of the immediate study area—and residents of the larger Kona region. The native writings translated within this study and the interviews with the *kūpuna* (elders) who were either former residents of, or who traveled upon the land of Kekaha, demonstrate the depth of cultural attachment that the people of the land feel for their *'āina kulaiwi* (native land). While today, the area within the park and the Kekaha region might be considered to be an arid and even desolate land, the families who trace their genealogical lines to the region feel a deep cultural attachment to the place. One example of this sense of attachment to the land is expressed in an ancient Hawaiian saying —

Ola aku la ka 'āina kaha, ua pua ka lehua i ke kai — The natives of the Kaha lands have life, the *lehua* blossoms are upon the sea! (John Whalley Hermosa Isaac Kihe in *Ka Hōkū o Hawai'i*, February 21, 1928)

This saying describes the seasonal practice of natives of the Kekaha region, who during the winter planting season, lived in the uplands, where they cultivated their crops under the shelter of the *lehua* trees. Then when the fishing season arrived with the warmer weather, the natives would travel to the shore, where the fishing canoe fleets could be seen floating upon the sea like *lehua* blossoms. It was as a result of this knowledge of seasons, and the relationship between land, ocean, and community, that the residents of Kekaha were sustained by the land.

The interviews recorded as a part of this study, bring to life the story told in the above saying. The interviewees echo the words, experiences, and *aloha* of their *kūpuna* (elders), and describe the continuation of the relationship between families of the uplands and coastal regions through the 1960s. The interviews also share the experiences and observations of various Hawaiian residents of Kona, who in their youth (ca. 1920s-1960s), spent time traveling along the Kekaha shoreline. To all of you who shared your *mana'o*, *aloha*, and history—

Valentine K. Ako, Alan Carpenter, Casey and Craig Cho, Violet Lei Ka'elemakule-Collins *mā*, Tessa Kamākia Magoon-Dye (and Robert Dye), Karin K. Haleamau, George K. Kahananui, Margie Kaholo-Kailianu, David Ka'ōnohi Keākealani *mā*, Caroline Kiniha'a Keākealani-Perreira, Leina'ala and Shirley Keākealani, Richard Lincoln, Rose Pilipi-Maeda, Arthur M. Mahi, Joseph Pu'ipu'i "Wainuke" Maka'ai, Kamakaonaona Pomroy-Maly, Sherrie Samuels, Hannah Kihalani Springer, Toni Auld-Yardley, and Martha Yent. Also, to the many people unnamed here, who provided logistical support, and helped to ensure that the archival research and interviews could be completed—

— *Mahalo nui nō, a ke aloha o ke Akua pū me 'oukou a pau!*

I wish to note here, that while a sincere effort was made, it was impossible to record everything that could be said about the land and traditions of lands within Kekaha Kai State Park. But, every effort has been made to present readers with an overview of the rich and varied history of the area, and to accurately relay the recollections, thoughts, and recommendations of the people who contributed to this study.

'o wau nō me ka ha'aha'a — Kepā Maly
O ka mea maika'i mālama, o ka mea maika'i 'ole, kāpae 'ia
(Keep the good, set the bad aside)

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I. INTRODUCTION

Background

At the request of George Atta, AICP-Project Manager with Group 70 International, on behalf of the Department of Land and Natural Resources-Division of State Parks (DLNR-DSP), Kepā Maly, Cultural Resources Specialist (*Kumu Pono Associates*), conducted historical and archival documentary research and an oral history study for lands within the Kekaha Kai State Park. The park consists of the *makai* (seaward) portions of the *ahupua'a* (land divisions) of Kaulana, Mahai'ula, Makalawena (in the vicinity of the ancient shoreline trail), Awake'e, Manini'ōwali, and Kūki'o in the region traditionally known as Kekaha, in the district of North Kona, Island of Hawai'i (*Figure 1*). Within its boundary's, the park includes approximately 4.5 miles of shoreline and 1600 acres of land.

Legendary and historic literature tells us that the lands within the park study area were among the favored lands of the larger Kekaha region. Indeed, since the latter 19th century, numerous archaeological sites have been identified along the coast and inland of the Kekaha Kai State Park area. Protected coves, access to potable water, inland agricultural field systems, canoe landings, rich fisheries, and a network of fishponds attracted native residents to the area. As a result of the natural and cultural resources of some of the lands in the park, and in response to development activities in the Kekaha region, a number of archaeological and ethnographic studies have been previously published. Rather than duplicating those works (selected authors cited in text), the author includes an overview of selected historical records, while focusing on relatively new sources of historical records.

Over the period of twenty years, the author has been reviewing Hawaiian language newspapers, and translating native historical accounts. Several of the identified narratives were written by former residents of Kekaha (some of whom lived within lands that are now a part of the park). Also, as a part of this study, historical survey records from the 1880s were identified as valuable sources of information for the lands in and neighboring Kekaha Kai State Park. Thus, the historical-archival documentary research reported in is study will supplement the records of earlier ethnographic studies and the archaeological work recently conducted by DLNR-DSP archaeologists (Carpenter et al., 1998).

Historical and archival documentary research for this study was conducted between August 7th to October 17th, 1997. Archival records were viewed in the collections of the Hawaii State Archives; Department of Land and Natural Resources-State Survey Division, Bureau of Conveyances, Division of State Parks, and Land Management Division; Bishop Museum Archives; the University of Hawaii-Hilo Campus, Mo'okini Library; and in the collection of the author. Literary resources included both published and manuscript Hawaiian accounts (both in Hawaiian and English); land use records, including Hawaiian Land Commission Award (LCA) records from the *Māhele* (Land Division) of 1848; and Boundary Commission Testimonies and Survey records of the Kingdom and Territory of Hawai'i (c. 1873-1905); D. Malo (1951); S. Kamakau (1961, 1964, 1976, and 1991); Wm. Ellis (1963); A. Fornander (1917-1919 and 1973); Stokes and Dye (1991); E. Maguire 1926; Henke (1929); Reinecke (ms. 1930); J. W. Coulter (1931); M. Beckwith (1919, 1970); Handy and Handy with Pukui (1972); Kelly (1971 & 1983); Springer (1989 and 1992); and various archaeological studies. The study also incorporates native Hawaiian accounts and historical records authored by J. Ka'elemakule, J.W.H.I. Kihe, and J. Wise, compiled and translated from Hawaiian to English, by the author.

Oral history interviews for this study were conducted between November 8, 1997 to February 4, 1998. The study also includes pertinent excerpts from previously collected oral history interviews with *kūpuna* and others familiar with the history of the study area lands. As a result of the combined interview resources, a total of eleven interviews with fifteen participants are included in this study. The primary focus of the interviews was to elicit information from knowledgeable individuals

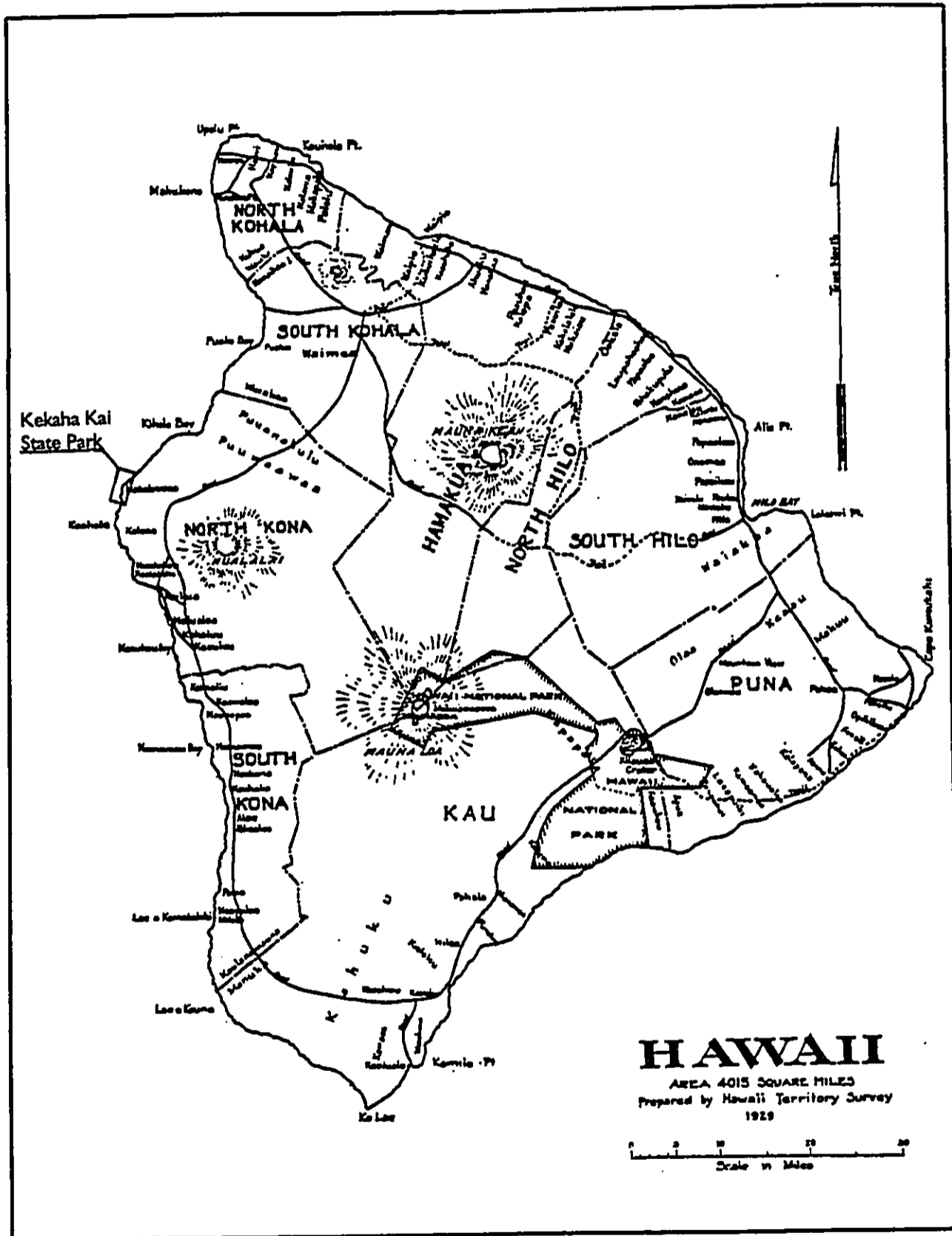


Figure 1. Island of Hawaii; Showing Location of the Kekaha Kai State Park Study Area

regarding traditional Hawaiian lore and practices, spiritual beliefs, the presence of traditional sites, land and resource use, and subsistence practices in the study area. Interviewees were also encouraged to offer recommendations for long-term protection and interpretation of the cultural and natural resources of Kekaha Kai State Park. The overall goal of this study is to provide DLNR-DSP with the necessary background documentation to develop plans for long-term care and protection of the park's diverse historic sites and natural resources, and to help formulate the basis of an interpretive program for Kekaha Kai State Park.

Study Presentation

As noted above, this study includes documentation collected from two primary resources, thus, the information is presented in two primary sections. The first section includes several chapters reporting on documentation gathered from literature and archival resources; cited in the chronological order of original publication. The second section introduces the oral history study, presents an overview of the methodology and documentation collected as a result of the oral history interviews, and includes the complete and released interview transcripts, and their associated release of interview record forms.

II. NĀ MO'OLELO 'ĀINA (TRADITIONS OF THE LAND): KEKAHA — AHUPUA'A OF KAULANA, MAHAI'ULA, MAKALAWENA, AWAKE'E, MANINI'ŌWALI, AND KŪKI'Ō

The information presented in this section of the study provides readers with a general overview of Hawaiian colonization, population expansion, and land management practice in the Hawaiian Islands. A more detailed discussion on settlement, based on archaeological evidence in the park and larger Kekaha region is presented in "Archaeological Reconnaissance Survey: Kekaha Kai State Park, Mahai'ula Section, Kaulana and Mahai'ula Ahupua'a, North Kona Island of Hawai'i" (Carpenter et al., 1998). That report should be read for further site-specific details.

Kekaha: An Overview of Hawaiian Settlement and Land Management Practices

It is generally believed that Polynesian settlement voyages between Hawai'i and Kahiki (the ancestral homelands of the Hawaiian gods and people) occurred in two major periods, AD 300 to 600 and AD 1100 to 1250. The ancestors of the indigenous Hawaiian population are believed to have come primarily from the Marquesas and Society Islands (Emory in Tatar 1982:16-18). For generations following initial settlement, the population clustered along the windward (*ko'olau*) shores of the Hawaiian Islands, where fresh water was available, agricultural production could become established, and fishing was good. Small bays generally had a cluster of houses where the families of fishermen lived (Handy and Handy 1972:287). Only after the best areas became populated and perhaps crowded (ca. 800 to 1000 AD), did the Hawaiians begin settling more remote *kona* (leeward) sides of the islands.

Based on historical accounts and archaeological studies (cf. Ellis 1963, Fornander 1973, Stokes and Dye 1991, Reinecke Ms. 1930, Handy and Handy with Pukui 1972, Kelly 1971 and 1983, and Tomonari-Tuggle 1985), a general model characterizing major land use and settlement expansion of the leeward regions in the prehistoric period can be proposed. This model extends from c. AD 1000 to AD 1778, when Captain James Cook arrived in the islands—

- 1 - In the period from pre-AD 1000 to the 1300s, the sheltered bays of Kona (which were also supplied by fresh water sources) were settled. The early settlers brought with them, many things which were necessary for their survival. These included dry- and wet-land taros, sweet potatoes, yams, gourds, breadfruit, coconuts, 'awa, sugar cane, and *wauke* etc. And, as native historian M.K. Pukui noted, the ancient settlers also brought with them their gods and goddesses, as "they were in their minds and

souls..." (M.K. Pukui Ms.:2). In this early time, the primary livelihood focused on the collection of marine resources, and near residence agriculture.

- 2 - In the second period, by the 1300s selected areas in the uplands, to around the 3000 foot elevation were being cultivated, and an 'ohana (extended family) system of social, religious, political, and economic values linked coastal and inland inhabitants.
- 3 - In the third period, generally the 16th-18th centuries, there evolved a greater separation between the *ali*'i, or chiefly class and the *maka'ainana* (commoners). The Hawaiian population grew, and concurrently, land use practices expanded and became further formalized. In Kona and the leeward districts, settlements began expanding away from sheltered and watered bays, and an extensive dryland agricultural field system was developed in the uplands. As a result of the continued growth of the native population, there developed a need to inhabit more arid lands, thus, the people begin establishing permanent settlements in Kekaha. Also, in this time, the native system of land management by district, smaller land divisions, and land units was formalized.

The land provided the fruits and vegetables for the diet, and the ocean provided most of the protein. This system of land management also set the basis of Hawaiian land use and distribution through the early 19th century.

Thus, as the ancient Hawaiian population grew, land use and resource management practices evolved as well. As a result, the *moku puni* or islands were subdivided into land units of varying sizes. The largest division was the *moku-o-loko* (district—literally: interior island). It is recorded by the ca. 16th century, in the time of the chief 'Umi-a-Liloa, the island of Hawai'i was formally divided into six major districts (Fornander 1973—Vol. II:100-102). On Hawai'i, the district of Kona is one of six major *moku-o-loko* within the island. The district of Kona itself, extends from the shore across the entire volcanic mountain of Hualālai, and continues to the summit of Mauna Loa, where Kona is joined by the districts of Ka'ū, Hilo, and Hāmākua. One traditional description of the southern and northern-most boundaries of Kona describes the district as extending:

Mai Ke-ahu-a-Lono i ke 'ā o Kani-kū, a hō'ea i ka 'ūlei kolo o Manukā i Kaulanamauna e pili aku i Ka'ū! — From Keahualono [the Kona-Kohala boundary] on the rocky flats of Kanikū, to Kaulanamauna next to the crawling (tangled growth of) 'ūlei bushes at Manukā, where Kona clings to Ka'ū! (Ka'ao Ho'oniua Pu'uawai no Ka-Miki in Ka Hōkū o Hawai'i, September 13, 1917; Maly translator).

Kona, like other large districts on Hawai'i, was further divided into 'okana or kalana (regions smaller than the *moku-o-loko*, yet comprising several other units of land). In the region now known as Kona 'akau (North Kona), there were at least two ancient regions (*kalana*) as well. The southern portion of North Kona was known as "Kona kai 'ōpua" (interpretively translated as: Kona of the distant horizon clouds above the ocean), and included the area extending from Kailua to Pu'uohau. The northern-most portion of North Kona was called "Kekaha" (descriptive of an arid coastal place). Native residents of the region affectionately referred to their home as "Kekaha-wai-'ole o nā Kona" (Waterless Kekaha of the Kona district). The boundaries of Kekaha are described by the following saying:

O Hikuhia i ka uka o Nā-pu'u a me Kekahawai'ole, mai Ke-ahu-a-Lono i ke 'ā o Kanikū a hō'ea i ke kula o Kanoenoe i ka pu'u o Pu'u-o-Kaloa. — [Kekaha extends from] the uplands of Hikuhia, which is above Nāpu'u¹ and the waterless Kekaha; and extends from Keahualono on the rocky plain of Kanikū, to the hill of Pu'uokaloa [at

¹ Nāpu'u is a general name for the hills and region between Pu'uanahulu and Pu'uwa'awa'a, is also called Nā-pu'u-pū'alu or Nā-pu'u-pū'alu-kinikini.

Keahuolu]. (Ka'ao Ho'oniua Pu'uwai no Ka-Miki in Ka Hōkū o Hawai'i. October 18, 1917; Maly translator).

The sub-districts of Kona, like those mentioned above were further divided into manageable units of land, that were tended to by the *maka'āinana* (people of the land). Of all the land divisions, perhaps the most significant land division was the *ahupua'a*, subdivisions of land that were usually marked by an altar with an image or representation of a pig placed upon it (thus the name *ahu-pua'a* or pig altar). The *ahupua'a* may generally be compared to pie-shaped wedges of land that stretch from the ocean which fronts the land unit, to the islands' interior. Even the *ahupua'a* were divided into smaller manageable parcels in which cultivated resources could be grown and natural resources harvested. As long as sufficient tribute was offered and *kapu* (restrictions) were observed, the common people, who lived in a given *ahupua'a* had access to most of the resources from mountain slopes to the ocean.

Entire *ahupua'a*, or portions of the land were generally under the jurisdiction of appointed *konohiki* or lesser chief-landlords, who answered to an *ali'i-'ai-ahupua'a* (chief who controlled the *ahupua'a* resources). The *ali'i-'ai-ahupua'a* in turn answered to an *ali'i 'ai moku* (chief who claimed the abundance of the entire district). Thus, *ahupua'a* resources also supported the royal community of regional and/or island kingdoms. This form of district subdividing was integral to Hawaiian life and was the product of strictly adhered to resources management planning. It is in this setting of Kekaha wai 'ole o nā Kona that we find the project area (Kekaha Kai State Park) in the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o.

Kekaha-wai-'ole-o-nā-Kona in Historic Narratives

A review of 19th century Hawaiian historical records (narratives written by both native and foreign historians) presents readers with a few rich glimpses into the history and customs associated with the lands of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o. Also, narratives which speak of the larger region of Kekaha, at times include specific references to one or more of the lands within Kekaha Kai State Park. Thus, it is from such narratives that we begin to understand the significance of the lands of Kekaha, and how the land shaped the lives and practices of the native population in ancient times. It is appropriate to note here, that the limited number of early native accounts, is not surprising when one takes into account the dramatic changes in the natural landscape in the region, a result of the 1800 and 1801 lava flows of Hualālai. The lava flows not only covered large tracts of land in Kekaha, but they also erased significant features in the cultural landscape. Adding to the limitations of early records is the fact that by the beginning of the 19th century, the native population was also in decline, primarily as a result of foreign diseases. Thus, many of the people who could tell the stories were gone before detailed written accounts could be recorded.

Interestingly, in areas like Mahai'ula, Makalawena, Kūki'o, and Ka'ūpūlehu, where natural resources were favorable, families in small communities maintained residence into the later 19th- and early 20th-centuries. From some of the descendants of these families we are provided a unique historical record—indeed at least two of the "sons" of Kekaha (born in the early 1850s) were prolific writers. In the period from ca. 1907 to 1929, J.W.H. Isaac Kihe (who also wrote under the penname "Ka-'ohu-ha'aeo-i-nā-kuahiwi-'ekolu") and John Ka'elemakule, who independently and in partnership with Reverend Steven Desha and John Wise², wrote detailed historical accounts in Hawaiian language newspapers. Their rich texts tell us that the lava flows of 1800-1801 covered important agricultural fields, large native communities, and a highly valued complex of fishponds. They also offer us documentation on place names, practices, customs, and beliefs of the people of Kekaha.

² Kihe and Wise also worked on the translations of Abraham Fornander's "Collection of Hawaiian Antiquities and Folklore" (1917-1919).

The historical texts in the following section of this study include selected excerpts from frequently cited narratives, and also provide readers with first hand accounts by native residents—some of the narratives are presented here in English for the first time. To the greatest extent possible, all native accounts which make specific reference to the *ahupua'a* or other sites within the Kekaha Kai State Park, have been included here. Other selected narratives which describe the customs, practices and beliefs of native residents of Kekaha-wai-'ole-o-nā-Kona, are included when they can help interpret historic resources of the land and the lifeways of the residents. The historical records are usually presented in sections by date of occurrence—the period of the events described—and generally from the earliest written accounts to the most recent ones.

**Traditional and Early Historic Accounts
(written between ca. 1860-1885)**

The Hawaiian traditions cited in this section of the study, come from written accounts of the mid 19th century. As noted earlier in this study, initial settlement of Kona appears to have occurred first along the sheltered and watered bays in the region extending south from Kailua. Only after the population increased and there developed a need to inhabit more arid lands, did the people begin establishing permanent settlements in Kekaha. In many of the accounts below, it will be seen that one of the recurring themes of the native and early historic narratives of Kekaha, is the wealth of the fisheries—those of the deep sea, near-shore, and inland fishponds—of the region.

The native account of Punia (also written Puniaiki – cf. Kamakau 1968), is perhaps among the earliest accounts of the Kekaha area, and in it is found a native explanation for the late settlement of Kekaha. The following narratives are paraphrased from Fornander's "Hawaiian Antiquities and Folklore (Fornander 1959):

Punia: A Tale of Sharks and Ghosts of Kekaha

Punia was born in the district of Kohala, and was one of the children of Hina. One day, Punia desired to get lobster for his mother to eat, but she warned him of Kai'ale'ale and his hoards of sharks who guarded the caves in which lobster were found. These sharks were greatly feared by all who lived along, and fished the shores of Kohala for many people had been killed by the sharks. Heeding his mother's warning, Punia observed the habits of the sharks and devised a plan by which to kill each of the sharks. Setting his plan in motion, Punia brought about the deaths of all the subordinate sharks, leaving only Kai'ale'ale behind. Punia tricked Kai'ale'ale into swallowing him whole. Once inside Kai'ale'ale, Punia rubbed two sticks together to make a fire to cook the sweet potatoes he had brought with him. He also scraped the insides of Kai'ale'ale, causing great pain to the shark. In his weakened state, Kai'ale'ale swam along the coast of Kekaha, and finally beached himself at Alula, near the point of Hi'iakanoholae in the land of Keahuolu. The people of Alula, cut open the shark and Punia was released.

At that time Alula was the only place in all of Kekaha where people could live, for all the rest of the area was inhabited by ghosts. When Punia was released from the shark, he began walking along the trail, to return to Kohala. While on this walk, he saw several ghosts with nets all busy tying stones for sinkers to the bottom of the nets, and Punia called out in a chant trying to deceive the ghosts and save himself.

*Auwe no hoi kuu makuakane o keia kaha e!
Elua wale no maua lawaia o keia wahi.*

*Owau no o ko'u makuakane,
E hoowili aku ai maua i ka ia o ianei,
O kala, o ka uhu, o ka palani,*

*Alas, O my father of these coasts!
We were the only two fishermen of
this place (kaha).
Myself and my father,
Where we used to twist the fish up in the nets,
The kala, the uhu, the palani.*

O ka ia ku o ua wahi nei la,
Ua hele wale ia no e maua keia kai lal
Pau na kuuna, na lua, na puka ia.
Make ko'u makuakane, koe au.

The transient fish of this place.
We have traveled over all these seas,
All the different place, the holes, the runs.
Since you are dead, father, I am the only one left.

Hearing Punia's wailing, the ghosts said among themselves, "Our nets will be of some use now, since here comes a man who is acquainted with this place and we will not be letting down our nets in the wrong place." They then called out to Punia, "Come here." When Punia went to the ghosts, he explained to them, the reason for his lamenting; "I am crying because of my father, this is the place where we used to fish. When I saw the lava rocks, I thought of him." Thinking to trick Punia and learn where all the *ku'una* (net fishing grounds) were, the ghosts told Punia that they would work under him. Punia went into the ocean, and one-by-one and two-by-two, he called the ghosts into the water with him, instructing them to dive below the surface. As each ghost dove into the water, Punia twisted the net entangling the ghosts. This was done until all but one of the ghosts had been killed. That ghost fled and Kekaha became safe for human habitation (Fornander 1959:9-17).

Kekaha in the Time of 'Umi-a-Liloa (ca. 16th century)

One of the earliest datable accounts that references Kekaha comes from the mid 16th century after the chief 'Umi-a-Liloa unified the island of Hawai'i under his rule. Writing in the 1860s, native historian, Samuel Mānaiakalani Kamakau (1961) tells us of 'Umi and mentions the region of Kekaha.

'Umi-a-Liloa did two things with his own hands, farming and fishing...and farming was done on all the lands. Much of this was done in Kona . He was noted for his skill in fishing and was called *Pu'ipu'i a ka lawai'a* (a stalwart fisherman). *Aku* fishing was his favorite occupation, and it often took him to the beaches [Kekaha] from Kalahuipua'a to Makaula³. He also fished for *'ahi* and *kala*. He was accompanied by famed fishermen such as Pae, Kahuna, and all of the chiefs of his kingdom. He set apart fishing, farming and other practices (Kamakau 1961:19-20).

At the end of 'Umi's life, Kamakau (1961) references Kekaha once again. He records that Ko'i, one of the faithful supporters and a foster son of 'Umi, sailed to Kekaha, where he killed a man who resembled 'Umi. Ko'i then took the body and sailed to Maka'eo in the *ahupua'a* of Keahuolu. Landing at Maka'eo in the night, Ko'i took the body to the cave where 'Umi's body lay. Replacing 'Umi's body with that of the other man, Ko'i then crossed the lava beds, returning to his canoe at Maka'eo. From there, 'Umi's body was taken to its' final resting place (Kamakau 1961:32-33).

At another point in his narratives, Kamakau (1961) returns to the account of 'Umi, and his fondness of fishing from the lands of Kekaha, making a specific reference to the nature of the land at Ka'elehuluhulu, in the *ahupua'a* of Kaulana, and the famous fishing ground called Hale'ohi'u.

It was the old custom to hide the bones of the chiefs who were beloved, as 'Umi's bones were hidden by Koi, in order that they might not be made into arrows to shoot rats with, into fishhooks, needles for sewing *tapa*, or *kahili* [feather standard] handles, as is still done today. There is a story told about the bones of Pae which illustrates this custom. Pae was a *kahuna* and high chief in the time of 'Umi, son of Liloa, and a descendant of Lilinoe, the woman of the mountains [a goddess of Mauna Kea]. His daughter Kuku-ka-lani was the wife of 'Umi's older brother Hakau, and his son Hoe is the ancestor of the Pae family today, the living and the dead. 'Umi had been told that the bones of Pae would make lucky fishhooks because of Pae's

³ Kalāhuipua'a is situated in the district of Kohala, bounding the northern side of Pu'uana'hulu in Kekaha. Maka'ula is situated a few *ahupua'a* south of Kaulana-Mahai'ula, to the north of Kalaoa.

descent from Ku-hai-moana and Ku-hau-ula, guardian gods (*'aumakua*) of fishermen. Therefore, in order to get these bones, 'Umi was anxious to be on hand at the time of Pae's death, and although Pae was now a very old man 'Umi was accustomed to take him out on his fishing expeditions. At that time the beach of 'Ohiki as far as Ka'elehuluhulu was clear [of lava]. 'Umi was out one day fishing with his chiefs at Makaula. Pae and his sons were in another canoe when Pae was stricken with sudden illness on the sea by Hale'ohi'u and died there. 'Umi said, "Take your father ashore and when I am through fishing we will all go up to mourn him."

When they were out of earshot of 'Umi a man named Lulana, a *kahu* of Pae, said, "You sons of my lord (*haku*), let us go and hide the bones of your father, and when 'Umi returns I will tell him that we lost the body, for I have heard that 'Umi wants to get a hold of his bones..." (Kamakau 1961:215-216)

Kamakau continues the narrative describing how the bones of Pae were hidden, but through the divinations of a *kahuna* (priest), the bones were retrieved. 'Umi had the bones made into fishhooks, and he took the sons of Pae fishing for *'ahi* and *kāhala* fish (presumably in the ocean fronting Kekaha). After each fish was hooked, 'Umi called out "*E Pae ē. i pa'a kā kāua i 'a, e Pae*" (Say Pae, hold fast to our fish, o Pae). Startled, the sons of Pae went to see the secret burial place of their father at Kawaikapu in Waimanu, and they discovered that Pae's body was indeed gone (Kamakau - *Kū 'Ōko'a* Sept. 28-Oct. 5, 1867; and 1961:216-217).

Kekaha: ca. 1740 to 1801

From the time of 'Umi until the 18th century, there appear to be few other early written accounts of the *ahupua'a* in the study area, or the larger Kekaha region. When Kamakau writes once again about the lands of Kekaha, we find ourselves in the middle 18th century. The narrative tells us that Alapa'i-nui, who had secured all of Hawai'i under his rule, was attacked by the forces of Kekaulike from Maui. The circumstances of the battle, and their impact on the native residents of Kekaha are recorded thus:

This Ke-kau-like so delighted in war that he sailed to attack Hawaii. The fighting began with Alapa'i at Kona. Both side threw all their forces into the fight. Ke-kau-like cut down all of the coconut trees throughout the land of Kona. Obligated to flee by canoe before Alapa'i, Kekaulike shamefully treated the commoners of Kekaha. At Kawaihae, he also cut down all the coconut trees. He slaughtered the commoners of Kohala, seized their possessions and returned to Maui (Kamakau - *Kū 'Ōko'a* October 20, 1866; and 1961:66).

Kamakau tells us that Alapa'i-nui died in 1754 (Kamakau 1961:78). Leading up to that time, the young chief Kalani'ōpu'u, had been challenging Alapa'i's rule, and after a short reign, Keawe'ōpala, Alapa'i's son was killed and Kalani'ōpu'u secured his rule over Hawai'i. Kamakau reports that in ca. 1780, as a result of their valor and counsel Kalani'ōpu'u granted "estate lands" in Kekaha to the twin chiefs Kame'eiamoku and Kamanawa (ibid.:310). Later, from his Kekaha residence at Ka'ūpūlehu, Kame'eiamoku played the lead role in one of the famous early historical events between Hawaiians and foreigners. In 1790, while residing at Ka'ūpūlehu, Kame'eiamoku captured the ship, *Fair American*. As a result of the capture, Kame'eiamoku and his followers acquired several foreign arms, including a cannon which they called "*Lopaka*," and the ship's Captain, Isaac Davis. Taken before Kamehameha, Davis and another captured foreigner, John Young, became friends and advisors of Kamehameha I (ibid.:147).

Having secured his kingdom on the island of Hawai'i, by 1797, Kamehameha I honored Kame'eiamoku's right to estate lands of Ka'ūpūlehu-Kekaha, in return for services provided by

Kame'eiamoku (ibid.:175). Kamakau also reports that "the land of Kekaha was held by the *kahuna* class of Ka-uahi and Nahulu" (ibid. 231); of which the twin chiefs are believed to have belonged.

In 1800 and 1801, two events which were perhaps the most significant in the native history of Kekaha occurred. The lava flows of Ka'upulehu and Puhi-a-Pele on the slope of Hualalai, poured across the land consuming native settlements, agricultural field systems, sheltered coves, fresh water sources, and numerous sites of significance in the cultural and natural landscapes of Kekaha. Among the most significant of the resources covered by the lava flow was an extensive complex of fishponds. These fishponds included those between Ka'upulehu and Kūki'o, and the great pond Pa'aiea (*ka loko o Pa'aiea*) which extended from Ka'elehuluhulu in Kaulana, to at least as far as Keāhole in the land of Kalaoa. Indeed, the *loko o Pa'aiea* was famous for its vast expanse, and is recalled in the Hawaiian proverb:

O na hōkū o ka lani luna, o Pa'aiea ko lalo — The stars are above, Pa'aiea is below.
Referring to: "Kamehameha's great fishpond Pa'aiea, in Kona... Its great size led to this saying—the small islets that dotted its interior were compared to the stars that dot the sky..." (Pukui 1986:275 – 2515)

Indeed, as viewed today, the lava flows of 1801 seem to embrace the coastal lands that are now Kekaha Kai State Park. In his accounts, Kamakau (1961) provides readers with an early written description of the eruptions and their impact on the people of Kona.

1800 and 1801: Ka Huaka'i o Pele — The Procession (eruptions) of Pele

One of the amazing things that happened after the battle called Kaipalaoa, in the fourth year of Kamehameha's rule, was the lava flow which started at Hu'ehu'e in North Kona and flowed to Mahai'ula, Ka'upulehu, and Kiholo. The people believed that this earth-consuming flame came because of Pele's desire for *awa* fish from the fishponds of Kiholo and Ka'upulehu and *aku* fish from Ka'elehuluhulu... Kamehameha was in distress over the destruction of his land and the threatened wiping-out of his fishponds. None of the *kahuna*, orators, or diviners were able to check the fire with all their skill. Everything they did was in vain. Kamehameha finally sent for Pele's seer (*kaula*), named Ka-maka-o-ke-akua, and asked what he must do to appease her anger. "You must offer the proper sacrifices," said the seer. "Take and offer them," replied the chief. "Not so! Troubles and afflictions which befall the nation require that the ruling chief himself offer the propitiatory sacrifice, not a seer or a *kahuna*." "But I am afraid lest Pele kill me." "You will not be killed," the seer promised. Kamehameha made ready the sacrifice and set sail for Kekaha at Mahai'ula.

When Ka-ahu-manu and Ka-heihei-malie heard that the chief was going to appease Pele they resolved to accompany him... Ulu-lani also went with them because some of the seers had said, "That consuming fire is a person; it is the child of Ulu-lani, Keawe-o-kahikona, who has caused the flow," and she was sent for to accompany them to Kekaha.¹ Other chiefs also took the trip to see the flow extinguished. From Keahole Point the lava was to be seen flowing down like a river in a stream of fire extending from the northern edge of Hualalai westward straight toward Ka'elehuluhulu and the sweet-tasting *aku* fish of Hale'ohi'u. There was one stream whose flames shot up the highest and which was the most brilliant in the bubbling mass as it ran from place to place. "Who is that brightest flame?" Asked Ulu-lani of the seer. "That is your son," he answered. Then Ulu-lani recited a love chant

¹ John Wise (personal communication) says, "The Hawaiians believe that the fires of Pele are dead persons who have worshipped the goddess and become transformed into the likeness of her body."

composed in honor of her first-born child as his form was seen to stand before her...The flow had been destroying houses, toppling over coconut trees, filling fishponds, and causing devastation everywhere. Upon the arrival of Kamehameha and the seer and their offering of sacrifices and gifts, the flow ceased; the goddess had accepted the offering. The reasons given for the flow may be summed up as: first, Pele's wanting the *aku* of Hale'ohi'u and the *awa* fish of Kiholo; second, her anger at being denied the 'ulu (breadfruit) of Kameha'ikana in upper Hu'ehu'e; third, her wrath because Kamehameha was devoting himself to Ka-heihei-malie and neglecting Ka-'ahu-manu. It was said that Pele herself was seen in the body of a woman leading a procession composed of a multitude of goddesses in human form dancing the *hula* and chanting... (Kamakau in *Kū 'Ōko'a*, July 13-20, 1867 and 1961:184-186)

John Papa I'i, a native historian and companion of the Kamehamehas, adds to the historical record of the fishpond Pa'aiea which was destroyed by the 1801 lava flows. I'i reports that because of his exceptional abilities at canoe racing, Kepa'alani "became a favorite of the king, and it was thus that he received [stewardship of] the whole of Puuwaawaa and the fishponds Paaiea in Makaula and Kaulana in Kekaha" (I'i 1959:132).

Kekaha: 1812 to 1841

As a child in ca. 1812, Hawaiian historian John Papa I'i passed along the shores of Kekaha in a sailing ship, as a part of the procession of Kamehameha I, bound for Kailua, Kona. In his narratives, I'i described the shiny lava flows and fishing canoe fleets of the "Kaha" (Kekaha) lands:

The ship arrived outside of Kaelehuluhulu, where the fleet for *aku* fishing had been since the early morning hours. The sustenance of those lands was fish.

When the sun was rather high, the boy [I'i] exclaimed, "How beautiful that flowing water is!" Those who recognized it, however, said, "That is not water, but *pahoehoe*. When the sun strikes it, it glistens, and you mistake it for water..."

Soon the fishing canoes from Kawaihae, the Kaha lands, and Ooma drew close to the ship to trade for the *pa'i'ai* (hard *poi*) carried on board, and shortly a great quantity of *aku* lay silvery-hued on the deck. The fishes were cut into pieces and mashed; and all those aboard fell to and ate, the women by themselves.

The gentle *Eka* sea breeze of the land was blowing when the ship sailed past the lands of the Mahaiulas, Awalua, Haleohiu, Kalaoas, Hoonaa, on to Oomas, Kohanaiki, Kaloko, Honokohaus, and Kealakehe, then around the cape of Hiiakanoholae... (I'i 1959:109-110).

I'i also reports that "*Kahaleula*" is the name of the surf of Mahai'ula, and at that time, board-body-, and canoe-surfing were still popular pastimes in the days of his youth (ibid.:135).

Kamakau wrote that in the last years of Kamehameha's life (ca. 1812 to 1819), "fishing was his occupation" (Kamakau 1961:203).

...[Kamehameha] would often go out with his fishermen to Kekaha off Ka'elehuluhulu and when there had been a great catch of *aku* or *'ahi* fish he would give it away to the chiefs and people, the cultivators and canoe makers (ibid.:203).

Following the death of Kamehameha I in 1819, the Hawaiian religious and political systems began undergoing radical change. Just moments after his death, Ka'ahumanu proclaimed herself

"*Kuhina nui*" (Prime Minister), and within six months, the ancient *kapu* system was overthrown. Less than a year later, Protestant missionaries arrived from America: all the while, the population was suffering the ravages of foreign diseases (cf. I'i 1959, Kamakau 1961, and Fornander 1973).

In 1823, British missionary William Ellis and members of the American Board of Commissioners for Foreign Missions (ABCFM) toured the island of Hawai'i seeking out community centers in which to establish church centers for the growing Calvinist mission. Generally, Ellis' writings (Ellis 1963) offer readers interesting glimpses into the nature of native communities and history as spoken at the time. Unfortunately, the lands within the immediate study area were not visited during his journey, though Ellis does offer historical glimpses into some of the history of the larger Kekaha region, with discussion of events that affected portions of the lands within Kekaha Kai State Park.

Departing on ship from John Young's residence in Kawaihae, Ellis reports that the sea breeze:

...carried us along a rugged and barren shore of lava towards Kairua, which is distant from Towaihae about thirty miles... In the evening we were opposite Lae Mano (Shark's Point), but strong westerly currents prevented our making much progress (Ellis 1963:58).

While in Kailua, Ellis and his companions learned of an eruption of Hualālai which had occurred about 23 years before their visit. His description reports that the flows:

...inundated several villages, destroyed a number of plantations and extensive fishponds, filled up a deep bay twenty miles in length, and formed the present coast.

An Englishman, who has resided thirty-eight years in the islands, and who witnessed the above eruption, has frequently told us he was astonished at the irresistible impetuosity of the torrent.

Stone walls, trees, and houses, all gave way before it; even large masses or rocks of ancient lava, when surrounded by the fiery stream, soon split into small fragments, and falling into the burning mass, appeared to melt again, as borne by it down the mountain's side.

Numerous offerings were presented, and many hogs thrown alive into the stream, to appease the anger of the gods, by whom they supposed it was directed, and to stay its devastating course.

All seemed unavailing, until one day the king Tamehameha went, attended by a large retinue of chiefs and priests, and, as the most valuable offering he could make, cut off part of his own hair, which was always considered sacred, and threw it into the torrent.

A day or two after, the lava ceased to flow. The gods, it was thought, were satisfied... (Ellis 1963:30-31)

Following the tour around the island, members of the Ellis party returned to Kawaihae, and traveled by canoe back to Kailua. On this trip Ellis visited coastal villages between Kapalaoa (near the northern boundary of Kona) and Kailua. At that time, Kapalaoa was a village of approximately 22 houses. Departing Kapalaoa, Ellis boarded his canoe and sailed to Wainānāli'i, a village and fishpond complex at the northern end of Kekaha. Ellis recorded that Kiholo was "a straggling village, inhabited primarily by fishermen" (ibid.:294).

Among Ellis' comments on the landscape at Kiholo, is a description of the fishpond of that area. The pond at Kiholo was constructed at the order of Kamehameha I in ca. 1810. Because of the similar nature of the land at Kiholo and lands within Kekaha Kai State Park—including the great fishpond of Pa'aiea which extended a few miles south of the park—it is likely that Ellis' description of Kiholo is applicable to the ponds of the Kekaha Kai State Park lands.

This village exhibits another monument of the genius of Tamehameha. A small bay, perhaps half a mile across, runs inland a considerable distance. From one side of this bay, Tamehameha built a strong stone wall, six feet high in some places, and twenty feet wide, by which he had an excellent fish-pond, not less than two miles in circumference. There were several arches in the wall, which were guarded by strong stakes driven into the ground so far apart as to admit the water of the sea; yet sufficiently close to prevent the fish from escaping. It was well stocked with fish, and water-fowl were seen swimming on its surface (ibid.).

Departing from Kiholo, Ellis passed Ka-Lae-Manō, "a point of land formed by the last eruption of the great crater on Mouna-Huararai" (ibid.). He reports that he landed at the village of Ka'ūpūlehu at night, and that the residents were all asleep. From Ka'ūpūlehu, Ellis sailed directly to Kailua (ibid.). Thus, once again only Ellis passed by the lands of Kūki'o, Makalawena, and Mahai'ula.

In 1840-41, Charles Wilkes of the United States Exploring Expedition traveled through the Kekaha region. Wilkes' narratives offer readers a brief description of agricultural activities in coastal communities and also document the continued importance of fishing and salt making to the people who dwelt in Kekaha:

...A considerable trade is kept up between the south and north end of the district. The inhabitants of the barren portion of the latter [i.e., Kekaha] are principally occupied in fishing and the manufacture of salt, which articles are bartered with those who live in the more fertile regions of the south [i.e. Kailua-Keauhou], for food and clothing... (Wilkes 1845:4, 95-97).

In their discussion of early agricultural practices in the region, Handy, Handy and Pukui (1972) reported that:

Wherever a little soil could be heaped together along the dry lava coast of North Kona, a few sweet potatoes were planted by fishermen at such places as Honokohau, Mahai'ula, Makalawena, Kaupulehu, Kiholo, Keawaiki, and Kapalaoa. Doubtless potatoes were planted on the upland of North Kona, on the lower slopes of Hualalai toward Pu'u Wa'awa'a, up to a considerable altitude in rainy seasons (Handy and Handy 1972:527-528).

Population Records

Based on missionary calculations (partially a result of the Ellis Tour cited above), the population on the island of Hawai'i was estimated at 85,000 individuals in 1823 (Schmitt 1973:8). By 1850, the population on the island had dropped down to 25,864 (ibid.). In 1835, population records for the region of Kekaha (Kapalaoa to Kealakehe—the present study area included), placed the population at 1,233 individuals. The total population of Kona in 1831 was 6,649, and in 1835, it was 5,957 individuals, a four year decline of 692 persons (ibid.:31). Historical accounts recording the continued decline of the native population in the period from ca. 1850 to 1920, as written by native writers, are cited in *Chapter VI* of this study.

The decline of remote area populations is partially explained by the missionary's efforts at converting the Hawaiian people to Christianity. Logically, churches were placed first in the areas of

larger native communities, and where chiefly support could be easily maintained. In this way, the missionaries got the most out of the limited number of ministers, and large groups of natives could live under the watchful eyes of church leaders, close to churches, and in "civilized" villages and towns. A native account which mentions Ka'elehuluhulu and Mahai'ula, also documents the move of one family, upon their hearing of the arrival of the missionaries in Kailua. This account is part of an obituary biography for Kaea Joseph Adams (provided from the collection of DLNR-DSP). Summarized, the narrative reports:

Joseph Adams died at his home, named Kaulana, in Holualoa, Kona. He was active in the Sunday School at Kailua, Helani, and Holualoa... His parents Kawaikoolihilihi^(*) and Keliikauikeheana^(**) departed from Kohala by canoe in April 1820 to travel to Kailua. "[A]t the time the very first missionaries arrived in the islands; the news of this event was heard. Many people went to Kailua to see the people who brought the 'torch of life' to Hawaii." Keliikauikeheana was pregnant when they began their journey. While on the canoe, she began her labor, and when the canoe landed, she gave birth. This was at Kaelehuluhulu and Mahaiula. The child, a boy was named Kaea, though later his name was changed to Joseph Adams. The family lived at Kaelehuluhulu until 1845, when they, along with the many children born to them moved to Holualoa, Kona, Hawaii. His descendant today carry the name Keawehawaii... (*Independent* - January 15, 1914)

Overall, the historic record documents the effect that western settlement practices had on Hawaiians throughout the islands. Drawing people from isolated native communities into selected village parishes and Hawaiian ports-of-call, had a significant, and perhaps unforeseen impact on native residency patterns, health, and social and political affairs (cf. I'i 1959, Kamakau 1961, Doyle 1953, and McEldowney 1979).

III. KEKAHA: LAND TENURE

The Māhele of 1848

Prior to 1848, all land and natural resources were held in trust by the high chiefs, and their use was given at the prerogative of the high chiefs (*ali'i 'ai ahupua'a* or *ali'i 'ai moku*) and their representatives or land agents (*konohiki*), who were generally lesser chiefs as well. By the early 19th century, Hawai'i's popularity as a port-of-call and economic center was becoming firmly established. With increased western visitations and settlement, there also grew an interest in the ownership of large tracts of land in the Hawaiian Islands—a privilege afforded to only a few individuals. When the Calvinist missionaries arrived in 1820, they observed the Hawaiian land tenure system, and encouraged the King and his advisors to allow the common people the right to private ownership of land. Slowly, as a result of economic and religious pressures, the seeds of change in Hawaiian land tenure took root.

By 1848, economic and missionary forces, brought about a western system of land ownership, which allowed fee-simple property ownership rights, replacing the native Hawaiian land tenure system. This event was called the *Māhele*, a division of lands between the King, lesser chiefs and overseers (*konohiki*), and the government. The *Māhele* defined the land interests of Kamehameha III (the King), the high-ranking chiefs, and the *konohiki* (Chinen 1958:vii and Chinen 1961:13). In this system, all land in the Kingdom of Hawai'i came to be placed in one of three categories: (1) Crown Lands (for the occupant of the throne); (2) Government Lands; and (3) *Konohiki* Lands. Because the *Māhele* did not convey title to any land, the chiefs and *konohiki* were required to present their claims to the Land Commission to receive the lands granted to them by the King. One stipulation was that the chiefs were required to pay commutations to the government in order to receive royal patents on lands they were awarded (ibid.) As a result of this requirement, we learn of the disposition of the

lands of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'owali, and Kūki'o—recorded in the *Buke Mahele* prepared between January 27th to March 8th, 1848 (*Buke Mahele* 1848).

One of the earliest records of title resulting from the westernization of property ownership, is an undated Interior Department document, which by subsequent references was recorded in ca. 1847-1848. Document No. 374 lists various lands in Kona which belonged to Kamehameha III. Among those lands were "Kaulana, Makalawena, Oawakee (Awakee), Maniniowali," and "Kukio" (Doc. 374, Hawai'i State Archives). *Table 1* below, is a list of the names of *ali'i* and *konohiki* who recorded private claims to *ahupua'a* that make up the present-day park, and the agreement of disposition reached between the King, Konohiki, and Government (see also, Barrère 1994).

Table 1.
Disposition of Lands in the Māhele of 1848

<i>Ahupua'a</i>	<i>Māhele Applicant</i>	<i>Disposition</i>	<i>Reference</i>	<i>Kuleana Claims Registered by Native Tenants</i>
Kaulana	J. Malo	Govt. ½ ahp. J. Malo ½ ahp.	<i>Buke Mahele</i> 1848:85-86 Indices 1929:32	Five claims identified in Native Register (not awarded)
Mahai'ula	W.P. Leleiohoku	Government	<i>Buke Mahele</i> 1848:23-24, 179 Indices 1929:34	Two claims identified in Native Register (not awarded)
Makalawena (656 acres)	Akahi (Award No. 5368)	Akahi	<i>Buke Mahele</i> 1848:36 Indices 1929:58	One claim identified in Native Register (not awarded)
Awake'e ⁴	N. Namauu (Award 10474)	N. Namauu	<i>Buke Mahele</i> 1848:175 Indices 1929:50, 80	No Native Tenant claims located
Manini'owali	Wm. Lunaillo	Govt. (ahp.)	<i>Buke Mahele</i> 1848:17-18, 179 Indices 1929:34	No Native Tenant claims located
Kūki'o (1&2)	M. Kekauonohi W.P. Leleiohoku A. Kao	Govt. (ahp.) Govt. (ahp.) Govt. (ahp.)	<i>Buke Mahele</i> 1848:23-24, 27-28, 41-42, & 179 Indices 1929:33	No Native Tenant claims located

The laws of the period also record that ownership rights to all lands in the kingdom were "subject to the rights of the native tenants," who lived on the land and worked it for their subsistence and the welfare of the chiefs (*Kanawai Hoopai Karaima...* {Penal Code} 1850:22). The 1850 resolutions in "*Kanawai Hoopai Karaima no ko Hawaii Pae Aina*," also authorized the Land Commission to award fee-simple title to all native tenants who occupied and improved any portion of Crown, Government, or Konohiki lands. These awards were to be free of commutation except for house lots located in the districts of Honolulu, Lāhainā, and Hilo (cf. Penal Code, 1850:123-124; and Chinen 1958:29).

Hoa'āina (Native Tenants) in the Māhele

In order to receive their awards from the Land Commission, the native tenants (*hoa'āina*) were required to prove that they cultivated the land for a living. They were not permitted to acquire "wastelands" (e.g. fishponds) or lands which they cultivated "with the seeming intention of enlarging their lots." Once a claim was confirmed, a survey was required before the Land Commission was authorized to issue any award. The lands awarded to the *hoa'āina* became known as "*Kuleana*

⁴ Awake'e – Questions about final disposition of Awake'e immediately following the Māhele are not answered in this study. Nueku Nāmau'u, who died in Oct. 1848, was a young relative of M. Kekūanao'a. When Nāmau'u died Kekūanao'a was among his heirs, and was custodian of Nāmau'u's properties (cf. Barrère 1994). The *Buke Mahele* (1848) records Nāmau'u retaining the land of Awake'e. The Indices of Awards (1929) states that Nāmau'u was to have relinquished his claim to Awake'e, but by resolution of the Privy Council, it was returned to him (Indices 1929:50). As noted here, Nāmau'u died in 1848, before closure of the Land Commission, and prior to perfecting the title of Awake'e. No Royal Patent was given for Awake'e, and by 1854, the Government sold 401 acre's, the entire coastal frontage of Awake'e to Kaha'iali'i, in Grant 2023. (See additional land tenure records in *Chapter IV*.)

Lands." All of the claims and awards were numbered (Land Commission Awards or LCA), and the LCA numbers remain in use today to identify the original owners of lands in Hawai'i. By the time of its closure on March 31, 1855, the Land Commission issued only 8,421 *kuleana* claims, equaling only 28,658 acres of land to the native tenants (Kame'eiehiwa 1992:295).

Because the *hoa'aina* were required to present documentation of their residency and cultivation of the parcels they claimed, the documentation collected between 1848-1855, is a valuable source of historic land use and residency records. Those records are preserved in a series of books which "register" the claims and subsequently record "testimony" supporting the claims. Today, the primary reference to claims and awards of the Māhele is the "Indices of Awards...", published in 1929 by the office of the Commissioner of Public Lands.

A review of the Indices lists only two claims by *ali'i* for lands now within Kekaha Kai State Park—'Akahi at Makalawena and N. Nāmau'u at Awake'e. As a result, no record of claims that were made for lands that are now a part of Kekaha Kai State Park, has been previously reported. A recent review of the Hawaiian texts of the Native Register and Native Testimony, identified at least eight individuals who registered claims for land in the *ahupua'a* of Kaulana, Mahai'ula, and Makalawena. *Table 2* presents this documentation (translated by the author) in its entirety, as it identifies area residents and offers us a glimpse into their life and practices, and the nature of land use in the coastal region of Kaulana, Mahai'ula, and Makalawena in ca. 1850.

It is noted here, that the documentation presented in *Table 2* is a part of the formal land history of Hawai'i. But, for reasons that remain uncertain, none of the native tenants, who provided documentation of residency and other forms of land use in the *ahupua'a* of Kaulana, Mahai'ula, and Makalawena, were granted the rights of fee-simple ownership of the lands claimed.

Table 2.
Native Tenant Claims for Kuleana in the Lands of Kaulana, Mahai'ula, and Makalawena

LCA Number	Claimant(s)	Date and Source: Native Register (NR) Native Testimony (NT)	Ahupua'a Location and Description
LCA 5368	Akahi <i>Ali'i claimants</i>	NT Vol. 3:740	<i>Ahupua'a of Makalawena.</i> 2. ...The land division of Makalawena. The boundaries are thus: to the uplands, the mountain; towards Kau, the land division of Mahalula; to the sea, where the surf break (<i>kuanalu</i>); towards Kohala, the land division of Awakee...
LCA 7976	Pookoai et al.	NR Vol. 8:520; January 27, 1848 NT Vol. 8:659; January 17, 1850)	<i>Ahupua'a of Kaulana, in the Ili of Kaeleluluhulu</i> Greetings to you, commissioners who settle land claims, we have a house lot claim. I, Pookoai, Napela, Kahoopii, Puluole, and K. Punohu, there are 5 of us who own this house lot. The length is 32 [fathoms], and the width is 30. North 16 [fathoms]; East 32; South 30; West 22; West-South 6 and an arm length (<i>iwilei</i>). Two owners are in one house, two in another, and one owner is in the third house. It is finished. Done by us - Pookoai, Punohu, Puluole, Napela, Kahoopii. Kalimakua and Kaalkaula sworn. We have seen a house lot parcel in the <i>ili</i> of Kaeleluluhulu, in the land division of Kaulana. It was from his parents in 1819. No one has objected. The boundaries are surrounded by the land of the <i>konohiki</i> .

Table 2. (continued)
Native Tenant Claims for Kuleana in the Lands of Kaulana, Mahai'ula, and Makalawena

LCA Number	Claimant(s)	Date and Source: Native Register (NR) Native Testimony (NT)	Ahupua'a Location and Description
LCA 8460 ⁵	D. Kealaiki	NR Vol. 8:531	<u>Ahupua'a of Kaulana, in the 'Ili of Ka'elehuluhulu</u> Hear ye, minister of the interior and all commissioners of this and that, and the commissioners who settle lands, cultivated land rights, house lot rights. Here is the explanation to you about three houses, the explanation is as follows: the shoreward length, on the west side is 18, the width is 10 fathoms on the south. The length on the inland side, East, is 22 1/2 fathoms, the width on the north side is 12 fathoms and 2 feet. That is the explanation to all of you. It is a house in name only. At this place there are no cultivated places inland. The shoreward section is what is of value at this place, until the time comes when one is in need, and moves to a more suitable place. If you find this claim valid or not, you can process the document for me. This is my explanation to you and the foreigners. Davida Kealaiki, at Kaeleluluhulu.
LCA 8464-B		NT Vol. 8:658	Namilo and Kalaau sworn. We have seen his parcel, a house lot at Kaeleluluhulu, Kaulana, from his the parents in 1819.
LCA 8467	Kialoa	NR Vol. 8:531	<u>Ahupua'a of Kaulana, in the 'Ili of Kaeleluluhulu</u> Greetings to all of you commissioners who settle land claims. Here is the explanation to you. On the north it is 10 fathoms. On the east it is 7 fathoms wide. The southern side is 10 fathoms long, and on the western side, along the goat corral, it encircles it, it is 11 fathoms long. Together, the total of the enclosed area is 38 [fathoms] long. On the west-south is Kealaiki's cultivated section, it is my lot, made by a stone wall, my lot is on the north. It is a true explanation and description of residence at this place, if it wasn't right for us, it wouldn't be documented by us. Done by Kialoa at Kaeleluluhulu.
		NT Vol. 8:658	Hao and Paoo sworn. We have seen a house lot parcel at Kaeleluluhulu, Kaulana. From his parents in 1819.
LCA 9866 & LCA 9867	Naia Kaneiakama	(claims recorded together) NR Vol. 8:577	<u>Kaulana kahakai (sea side).</u> Greetings to the Land Commissioners: We have a house lot Claim. On the East, it is 12 [fathoms]; west, 12, north, 12, south, 12. By Naia & Kaneiakama
LCA 9866	Naia	NT Vol. 8:658	<u>Kaeleluluhulu.</u> Kialoa and Makaualii sworn. We have seen the parcel, a house lot at Kaeleluluhulu, land division of Kaulana. Received from his parents in 1819. No one has objected. The boundaries are surrounded by the land of the konohiki.
LCA 9867	Kaneiakama	NT Vol. 8:658	He passed away, he has no descendants.

⁵ Two different LCA Numbers were recorded for Kealaiki. LCA 8460 was recorded in the Native Register, and 8464-B was recorded in the Native Testimony.

Table 2. (continued)

Native Tenant Claims for Kuleana in the Lands of Kaulana, Mahai'ula, and Makalawena

LCA Number	Claimant(s)	Date and Source: Native Register (NR) Native Testimony (NT)	Ahupua'a Location and Description
LCA 10963	Wana ⁶	NR Vol. 8:605	<i>Ahupua'a of Mahalula, Ili of Keawehala</i> Hear ye, ye Land Commissioners: Here is the claim for a lot, 30 fathoms on the east and west sides, and 12 fathoms on the north and south sides. That is the size of our house lot. 2 coconut trees have stood there from very long ago, and 2 hala and 4 loulu palms. Those are the claims for your consideration as to their validity, and if it is clear to you, [page 606] then send a document for us in order to clarify [title]. Furthermore, there are three houses. That is the explanation to you, the Commissioners to quiet land title. Wana. Kupaaikē and Kilohi sworn. We have seen his land: Parcel 1, a house lot in the <i>ili</i> of Keawehala, land division of Mahalula. It was from his parents in 1819. Parcel 2, a cultivated section (<i>kihapai</i>) with pandanus trees, 8 loulu and coconut trees in the <i>ili</i> of Keawehala, land division of Mahalula. It was from Kaahumanu in 1830. There are no disputes. The boundaries are surrounded by the land of the <i>konohiki</i> .
LCA 8457	Kaao	NT Vol. 8:657	<i>Ahupua'a of Mahalula, Ili of Keawehala</i> Kama and Kaleo sworn. We have seen his house lot parcel in the <i>ili</i> of Keawehala. Land division of Mahalula. It was given to him by Naia in the year 1839. No one objected. The boundaries are surrounded by the land of the <i>konohiki</i> .
LCA 10583	Opunui	NR Vol. 8:598 NT Vol. 8:659	<i>Makalawena Kaelehuuhulu⁷ Kona Hawaii.</i> Greetings to you, Kaauiwai, here are my thoughts to you about my lot. Here are the fathoms, the length is 14 on the south-east, and on the northeast side. Here are the fathoms for the width, 8 on the southeast and southwest side, it is the same on the northeast and northwest. Here with in my lot, are 2 sections. Here too is the thought about my goat enclosure (<i>pa kaa</i>). In describing the length and width to you, it is 6 fathoms 4 feet long, and it is 4 fathoms wide. It is the same on the north side and on the south side. The distance from my house lot to the goat corral is 10 [fathoms]. Done by Opunui. Pookoai and Apolo sworn. We have seen his house lot parcel in the <i>ili</i> of Haleoku, land division of Makalawena. It was from the parents of his wife in 1819. The boundaries are surrounded by the land of the <i>konohiki</i> .

⁶ The claimant's name under this LCA is written as "Wana" in the Native Register, though in the Native Testimony, the name is written as "Wanaoa."

⁷ Placement of Ka'elehuuhulu at Makalawena appears to be a transcriber's error (the testimony may have been collected at Ka'elehuuhulu); the Native Testimony repeats the *ahupua'a* name—Makalawena—and identifies the *ili* as Haleoku. (Boundary Commission testimonies cited in Chapter IV identify Haleoku as an *ili* of Makalawena.)

In compliance with the law (1851), *Konohiki* such as 'Akahi were required to declare the "i'a ho'omalu" (protected, or *kapu* fish) of lands they received. This was done in order to allow the *Konohiki* to receive benefits of the fisheries, and protect native tenants who were otherwise allowed gain sustenance from the fisheries fronting *ahupua'a* in which they lived (cf. Kosaki, Legislative Report No. 1; 1954). The only such declaration recorded for lands within the study area was at Makalawena which was conveyed to 'Akahi. on January 15, 1852, it was announced that *he'e* (octopus) was the *tabu* fish (State Archives, Interior Department Books). On January 24, 1853, 'Akahi gave notice that *'Iao* was the *tabu* fish of Makalawena (ibid.).

Records of the "*Auhau Poalua*" (Tuesday Tax) provide us with another important record of native residents in the study area *ahupua'a*. Collected to help pay for government services—e.g. public service projects and the educational program—the *Auhau Pō'alua* was paid by native tenants in labor services, goods, or financial compensation. On January 1, 1849, Samuela Ha'anio, Tax Assessor (District II, Island of Hawai'i) submitted a report identifying the following residents who came "under the '*Poalua*' tax laws"—several of the names figure in other accounts cited in this study.

Ahupuaa	Name of Residents
Kukio:	Wahapuu, Kau, Nakulua, Makaakau Koaliiole, Kahaiaili, Kapehe, Mamae, Kauaonuanu, Kanaina, Katakoiili,
Makalawena:	Kauhalu, Naele Pahia, Kahewahewaulu, Kailieleele, Namahial, Kapela, Kahanu, Kaikaula,
Mahaiula:	Hoai, Mana Paocao, Puluole, Napala, Kialoa, Hoopii
Kaulana:	(Hawai'i State Archives; Series 262, Hawaii — 1849)

IV. RESIDENCY AND LAND USE (CA. 1850 TO 1903)

Historic Land Documents in Archival Collections

Documentation in this section of the study was viewed in the collections of the Hawaii State Archives and Department of Land and Natural Resources-Land Management Division and Survey Division. The records below, provide readers with general overview of several aspects of land history. The topics visited include: transitions in ownership; who the native residents were and where they lived; descriptions of land use practices; and historic features—primarily recorded through the efforts of early surveyors. It will be noted that generally, land use records focus on practices valued in a western economic system. Thus, there are almost no archival records of native Hawaiian subsistence or economic practices. The primary area of land use documented in the located records, focused on the region extending from the mid-level *kula* (plains) to the cooler uplands where the forest zone began. The latter area being generally *mauka* of the main road that ran through upland North Kona. In these lands, for the most part acquired by a few owners of large tracts of land, the primary occupation was the grazing of cattle and goats. Though some records of leases, fee-simple ownership, and homestead agreements in the uplands also reference cultivation of crops such as coffee and mangoes.

Only a selection of the available records are referenced below. It is humbly noted here that additional documentation is available, and of particular interest are narratives compiled and written by H. Kihalani Springer (1985, 1989 & 1992), a native descendant and resident of the lands of Kekaha; and in Marion Kelly's "*Kekaha 'Aina Malo 'o*" (Kelly 1971).

For the most part, this section of the report is organized chronologically, by date of recordation. Though at times, supplemental documentation from more recent historical research is included as it helps put in perspective some of the events and relationships of people mentioned. Because of the chronological format, it will be seen that historical narratives by native writers, descendants of families of Kekaha, are not included in this section of the study. Those richly detailed texts, which tell us what the native residents were doing in the period from ca. 1850 to 1900, are presented in *Chapter VI* of the study.

Kaulana

- May 9, 1853. L. Ha'alelea, nephew of Malo, writes to Keoni Ana, Minister of Interior:

I and the Government are co-owners of the *Ahupuaa* of Kaulana, at Kona, Hawaii, and I and the Government are also co-owners of the *Ahupuaa* of Kamanoni, on the island of Molokai...I humbly request of you, that the Government's half in Kaulana, Hawaii, together with all its appurtenances, shall all belong to me, and the my half of the *Ahupuaa* of Kamanoni, in Molokai, with all its appurtenances, shall absolutely belong to the Government, so that I and the Government will own each from the mountain to the sea... (Archives-Land File, May 9, 1853). A note on the communication states that the Privy Council granted said application⁸.

Mahai'ula

- On October 5, 1853, J. Fuller (Government Land Agent, Kona) recorded the survey of 160 acres of land in Mahai'ula, sold to Kaohimaunu in Grant No.

⁸ No other record of the exchange was discovered during the present study, and as will be seen in subsequent documentation, portions of the Government half of Kaulana were sold at later dates.

1580. The parcel is situated inland, bounded on the *mauka* side by "*mauka* road leading through North Kona." (Land Management Division)

Kūki'o

- On September 27, 1854, J. Fuller recorded the survey of 690 acres of land in Kūki'o 1st, sold to Pupule in Grant No. 2121. The western (shoreward) boundaries are described as follows:

Begin at a heap of stones at the west corner of this land, near the sea, adjoining Kukio 2, and run;

1 - N 20° E 13.76 Chains to Sta. Opposite canoe landing ["Canoe Landing" written in area symbolizing waves, on north shore-side of Kikaua Pt.: written in text as "*kahi e pae ai ka waa*"];

2 - N 63°30' E 6.26 Chains along the bank of the seashore;

3 - N 17°30' E 20.75 Chains " " " " " " , to N corner heap of stones...

Boundaries then follow: North, the ancient boundary of Kaupulehu; East (*mauka*), Unsold Government Land; South, Kukio 2 (*Figure 2*). (Land Management Division)

Awake'e

- On September 28, 1854, J. Fuller recorded the survey of 401 acres of land in the coastal section of Awake'e, sold to Kaha'iali'i in Grant No. 2023. The parcel boundaries are: South, by Makalawena; West (*makai*), the sea shore; North, Manini'ōwali; East (*mauka*) Government Land, unsold (*Figure 3*). (Land Management Division)

Kaulana

- October 27, 1854—Keoni Ana, Minister of Interior, notified J. Fuller, Government Land Agent, that only one half of Kaulana may be sold, as J. Malo owns the other half (State Archives-Interior Department Book 6:234)

Kaulana, Awake'e and Kūki'o 1

- In a letter dated May 28 & 29, 1855, J. Fuller wrote to John Young (Keoni Ana), Minister of Interior, in the matter of sales of Government land. Among those lands identified are:

Name of Purchaser	Name of Land	No. of Acres	Price per Acre	Amount	Observations
Hoopulaau	½ Kaulana	156 ^{1/3}	0.37 ½	58.62 ½	Middling Quality
Kalama	" "	75 ^{1/3}	0.37 ½	28.25	" "
Kahaiālii	Awakee	401	0.25	100.25	Poor lands, goat pasture
Pupule	Kukio 1	690	0.12 ½	86.25	Very poor " " "

...I would observe that none of these lands are fully paid for, but after the sales are confirmed I shall proceed to collect the balance as soon as possible. Yet it is necessary to give the purchasers considerable time; as they are mostly poor and have but little which they can turn into cash. To encourage them, I have agreed to take goat skins, *Pulu*, wood &c. and pay the cash for them.

Your Excellency will perceive that I have sold this poor land in large tracts for goat runs and pastures, as in small lots it would be perfectly worthless...

J. Fuller
Land Agt. Kona Hawaii
(State Archives, Interior Department-Land File; May 28/29, 1855)

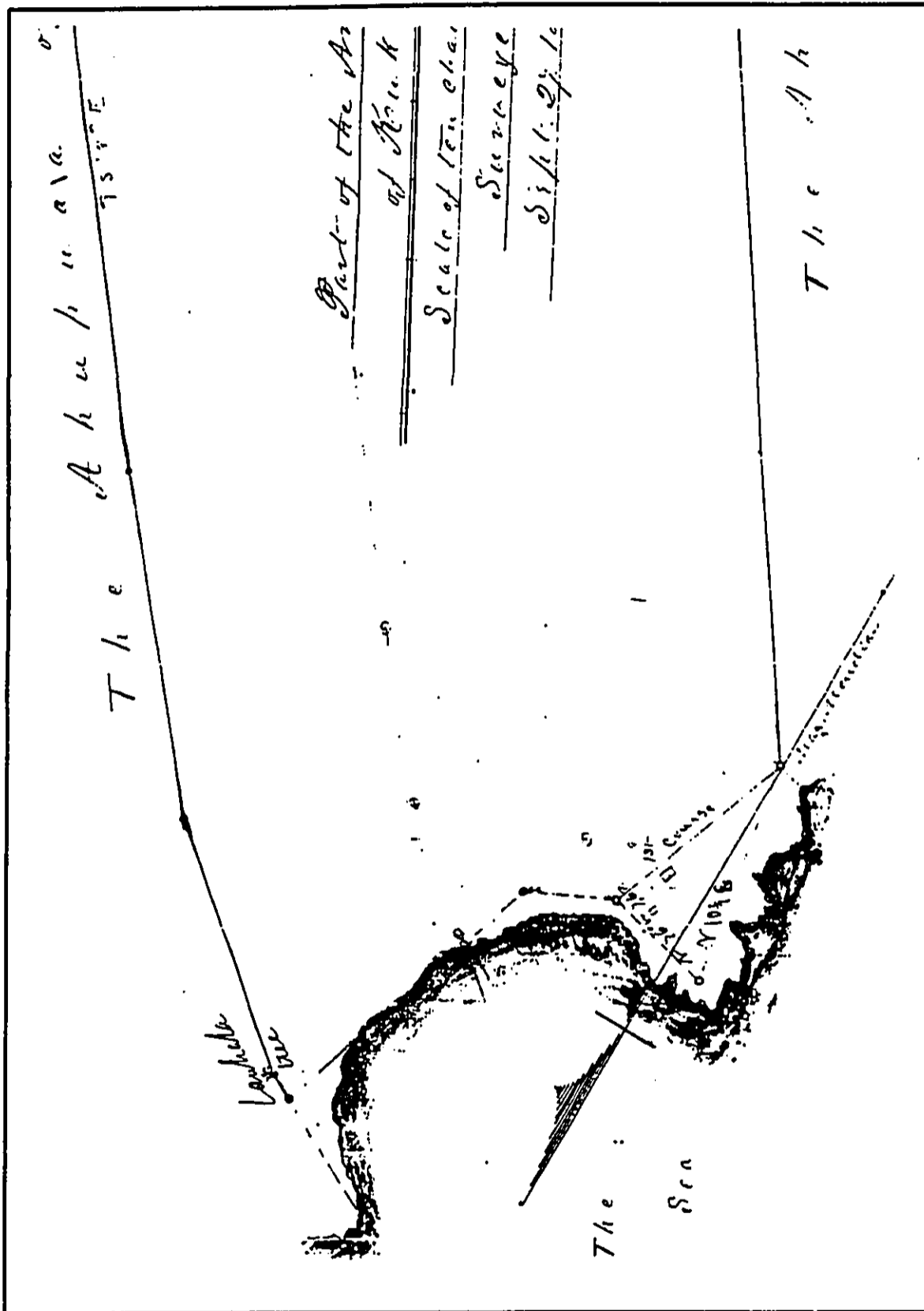


Figure 2. Makai Portion of Grant 2121 – Sold to Pupule; Ahupua'a of Kūki'o I"

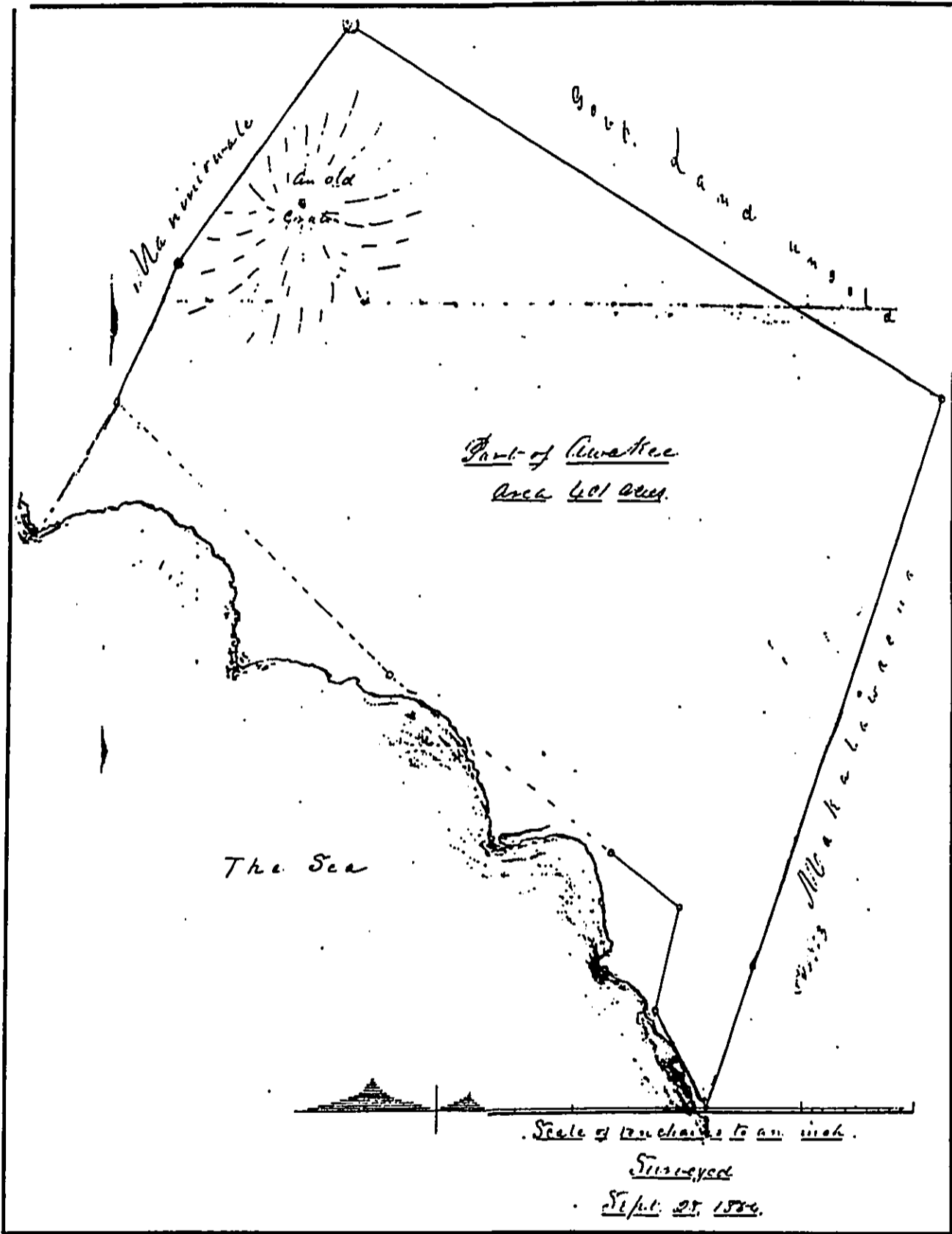


Figure 3. Grant 2023 – Sold to Kaha'iali'i; Makai Portion of Awake'e

Kaulana

- On February 27, 1855, J. Fuller records the survey of 156 1/3 acres of land, a portion of the Government half of Kaulana; sold to Hoopulaau in Grant No. 2112. The parcel is situated inland, bounded on the *mauka* side by "mauka road leading through North Kona," and on the *makai* side by Government land. The boundary on the North is the other 1/2 of Kaulana, and the boundary on the South is Awalua. (Land Management Division)

Kūki'o

- Letter dated Sept. 5, 1865, to Keoni Ana, Minister of Interior, describing certain Government Lands in Kona. Among those lands are Kukio 1st & 2nd:

These lands extend from the sea to the lower edge of the forest. Distance 5 mls., and contain not far from 1000 acres. Most of this is rocks and of little value.

The *mauka* part of Kukio 1st containing about 100 Ac., sold by Sheldon to Kahaunaele and Pupule, but not Patented. (State Archives, Interior Department-Land Files)

Kūki'o to Kaulana (inclusive)

- On April 25, 1866, J.H. Kaleiheana, Agent to make Inventory of the Lands of the King and Government reported on the disposition of lands in North Kona. Among those lands were:

...Kukio 1 & 2, an *Ahupuaa* of the Government, *mauka* remaining;
Maniniowali, an *Ahupuaa* of the Government, *mauka* remaining;
Awake'e, an *Ahupuaa* of the Government, *mauka* remaining;
Makalawena, an *Ahupuaa* of Akahi;
Mahaiula, an *Ahupuaa* of the Government, disposed of center;
Kaulana 1, an *Ahupuaa* of the Government, *makai* remaining;
Kaulana 2, an *Ahupuaa* of Haalelea... (State Archives, Interior Department Files)

Makalawena School

and Kaikala'ia Church (ca. 1847-1915)

The early history of the Makalawena School and Church is presently unclear. Previous historical writers (e.g., Soehren 1963, Kelly 1971, Springer 1986), have cited several sources, with no specific documentation on dates of establishment or location(s) of the school and church. Interestingly, John Ka'elemakule (*Chapter V* - in this study), writing about the period from c. 1860 to 1878 records that in his youth church services were held in the residence of Pookoai, at Kaulana. But by 1874, Ka'elemakule was teaching in the Makalawena School house. Thus, government records and documentation recorded by native tenants of the land from ca. 1854 to 1885 (cited in this study), indicate that the location of the school in the study area *ahupua'a* changed over time. The following records identify at least three locations for the school, and document school attendance and the inventory of facilities:

- 1 - In 1847 the school house (*hale kula*) was recorded as having been located at Mahai'ula, and Punohu was the teacher. School property and supplies were evaluated at \$19.12 (State Archives; Series 262-1847, General Reports).
- 2 - In the same series of reports, but for the period between January 1-December 31, 1848, Punohu reported that there were twenty-seven (27) students in attendance in the school at Ka'elehuluhulu (Kaulana). Teacher's salary was 1/8 (*hapawalu*), or 12½ cents per day, and studies included reading, arithmetic, geography, writing, philosophy, science, and religion (ibid. Series 262-1848, General Reports Hawaii).

- 3 - In 1861, Kauaii was the teacher and the school was still located at Ka'elehuluhulu. The teacher's salary was 15 cents a day, and twenty-one students were enrolled—twelve boys and nine girls. The school house was described as being walled with stone and thatched above (ibid. Series 262—1861-Reports).

Records cited by Soehren (1963), from a parish report for the years 1867-1868, provide us with an indication of the period in which the school moved from the Mahai'ula-Kaulana site, to Makalawena. The citation also ties the school function to that of the Makalawena church site:

- 4 - ...a special school conducted by the church at Makalawena under the leadership of the teacher W.R. Keanini, begun on Feb. 3, 1868. The teacher's salary is \$5.00 a month and \$15.00 for a quarter year.

This is the school district neglected by the government at this time in North Kona here. The school founded by the 'Benevolent Sovereign' installed as king of Hawaii, Kamehameha III. So this is the fifth of the schools in this parish this year." (Parish Report of the Kekaha Church from June 1, 1867 to May 31, 1868. In the files of the Hawaiian Evangelical Association in the Hawaiian Mission Children's Society Library (Soehren 1963:33).

- 5 - Records for the period of January to April 1873, identify the school as being situated at Makalawena, and the teacher was Kahao. The teacher's salary was 50 cents a day. There were sixteen students—seven boys and nine girls. In that period, one student had died (ibid. Series 262—1873, Hawaii Reports).
- 6 - By the 1890s, S. Kapela was the teacher at the Makalawena School. In 1893, the teacher's salary was \$1.00 a day. There were nineteen students—ten boys and nine girls—and four student had died in the period from January to April 1893 (ibid. Series 262—1893, Hawaii Reports).

On October 6, 1898, E.H. Gibson wrote to Dr. C.T. Rodgers of the Department of Public Instruction reporting:

I have visited all the schools in this District - N. Kona. Two of them, Kiholo and Makalawena, are reached by a ride of three hours over *aa* and *pahoehoe*... Makalawena has 9 houses and 32 children. In both places school is held in the church... At Makalawena the church is a bare wooden shanty, 16 x 24. with a few old pews. Both teachers do as good work as could be expected of them... (State Archives, Public Instruction File)

In June 1905, Reverend A. S. Baker wrote to Mr. Davis, Superintendent of Public Instruction, discussing church and school lands in Kona. Baker's letter also reveals that a decline in the population had caused the abandonment of some of Kekaha churches and communities:

...at Makalawena and Puuanahulu the public school is held in the chapels. All these were built for chapels, and have services at state intervals... In the past we also had stations at Kiholo and Kapalaoa, but as the inhabitants moved away, we abandoned these locations... (State Archives, Public Instruction File)

On May 10, 1906, the Superintendent of Public Instruction wrote the trustees of Bishop Estate asking that they deed the present school lot and teacher's lot at Makalawena, an area of .97 acres, to the Department (State Archives, Public Instruction File). On October 3, 1906, J.A. Maguire wrote to the members of the Board of Education informing them:

Complaints have been made to me by natives who are sub tenants of the land of Makalawena belonging to the Est. of Mrs. B.P. Bishop in regard to the boundary of the school lot.

Mr. Wright made the survey according to instructions from the Board of Education which was satisfactory, but since then Mr. Wright's assistants have moved the boundry, as they say according to Mr. Wright's instructions and taken in some cocoanut trees belonging to the natives... (State Archives, Public Instruction File-1906 - Figure 4)

On June 6, 1912, Chas. King, Supervising Principal forwarded sketches of the schools of Kona to W. Pope, Superintendent of Public Instruction. Among those sketches was a rough map and notes for the Makalawena school lot (Figure 5). On July 7, 1907, the trustees of the Bishop Estate conveyed a 0.97 acre school lot at Makalawena to the Hawaii Department of Public Instruction (Liber 280:391-393). Government records from a file dated 1907-1911, reporting on the inventory of school lands on Hawai'i described the Makalawena school as:

One building - Church and school building, T&G shingled roof; new 1 room N.W. iron roof, frame bldg. in process of erection (Series 261-All Islands 1907-1911:3)

Records of the Department of Public Instruction list ten students at Makalawena school in 1908 (State Archives, Series 261-1908 School Census). In 1909 and 1910, inventory records of school property evaluated Makalawena school at \$642.00, with the break-down listing:

Land	1 acre, rocky and sandy	\$30.00
School House	1-room, N.W., iron roof	\$400.00
Furniture and Fixtures	Wooden desks, teacher's table, chair	\$40.00
Tools and Implements		\$8.00
Outhouses	2 N.W.	\$40.00
Water System	Well	
Fence	Stonewall	\$120.00
	Total	\$642.00

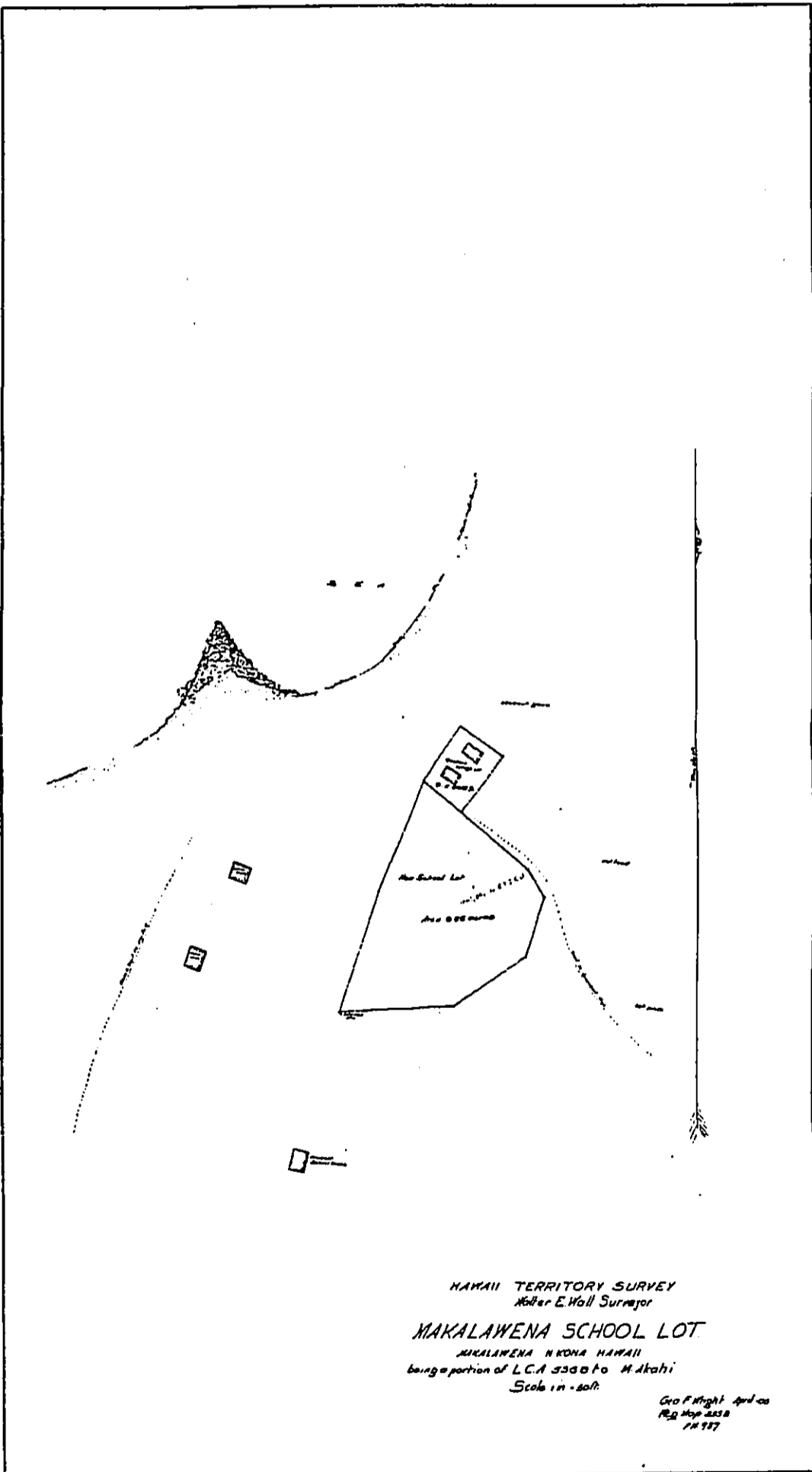
(State Archives, Series 261-Inventory 1909)

On November 18, 1908, the trustees of the Bishop Estate conveyed a 10,000 square foot lot at Makalawena to the Hawaiian Evangelical Association (Liber 311:205-207), and on December 11, 1909, Reverend A.S. Baker dedicated the new church, Kaikalaia, at Makalawena. The church and school remained in use for approximately ten years. By 1920, as a result of the departure of families from the last two coastal settlements (Makalawena and Ka'ūpūlehu) both the Makalawena School and Kaikalaia Church were closed. Soehren (1963) recorded that the church was reportedly "dismantled and moved *mauka* to Kalaoa" (1963:33). Soehren also reports:

The flat beach are through the ironwoods and coconut grove contained a number of houses in recent years...as well as a school which served residents of this coast from Mahaiula to Kukio. Those houses still standing in 1946 were destroyed by the *tsunami* of that year, which carried debris as far as the *mauka* side of 'Opae'ula pond, a quarter of a mile from the beach (ibid.:33-34).

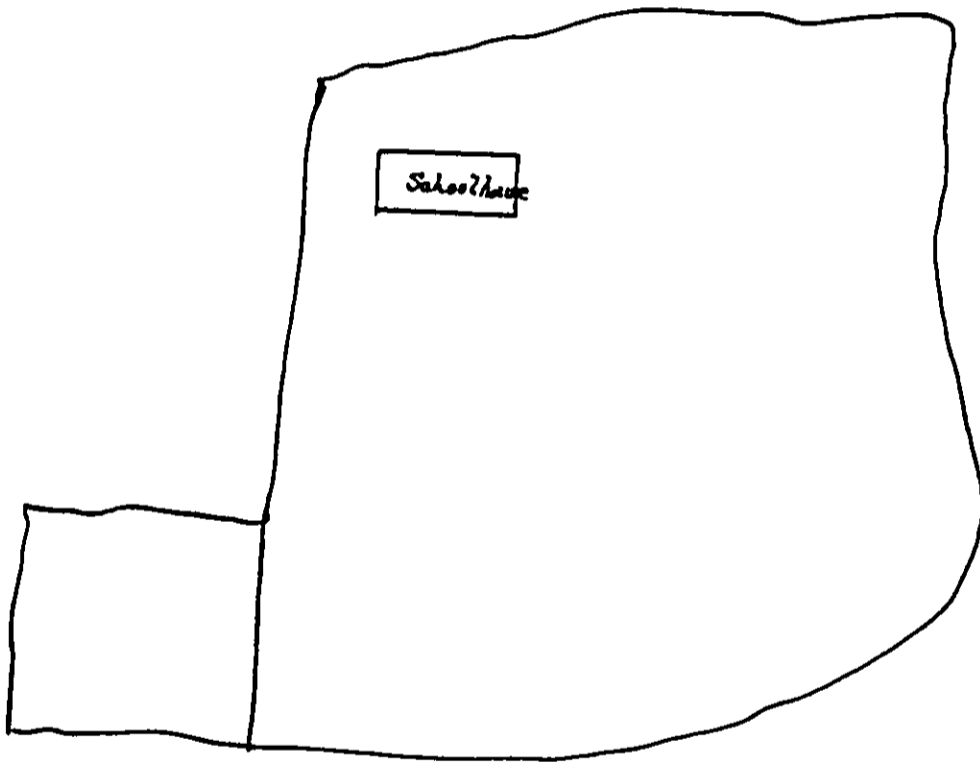
By the 1870s, Reverend George P. Ka'ōnohimaka assumed pastorship for the field of Kekaha, and through his efforts, at least six churches in the Kekaha region were established. The "Statistical Table of the Hawaiian Churches for 1877" identified G.P. Ka'ōnohimaka as the Pastor of the Kekaha

Figure 4. Register Map 2353; Geo. F. Wright April 1906 - State Survey Division



Department of Public Instruction

Fish Pond



Seabach

Makalawena School

*School property as long as
it is used for school purposes.*

N.Y. building; iron roof.

Stonewall.

Rocky and sandy land.

Figure 5. Sketch Map—Makalawena School Lot; Chas. King, June 1912

Church, with a total of 174 members in good standing (Hawaii State Archives, Lyons' Collection; M-96). Writing in *Ka Hōkū o Hawai'i*, in 1926, Reverend Steven Desha, told readers about the churches of Kekaha and work of Reverend Ka'ōnohimaka. Desha noted that the period he was writing about was ca. 1889, when he was the minister of the churches at Kealakekua and Lanakila. The following excerpts, translated by the author come from the August 17, 1926 issue of *Ka Hōkū o Hawai'i*.

During the tenure of Rev. G.P. Kaonohimaka, as Minister of the Churches of Kekaha, he worked with true patience. He traveled the "*kihapai laula*" (broad field or expansive parish) on his donkey, keeping his work in the various sections of the *kihapai laula*. There were times when he would begin his journey by going to the section of the "Hills", that is Puuanahulu and Puuwaawaa. Then when he was done there, he would go down to Kapalaoa, at the place known as Anaehoomalu. When he was finished there, he would travel to the various places, being Keawaiki, Kiholo, Kaupulehu, Kukio, Makalawena, Mahaiula, and Honokohau and Kaloko. Kaonohimaka would then return to the uplands of Kohanaiki and Kalaoa. He would be gone for several weeks at a time till he returned once again to his home. He would sleep as a guest in the homes of the brethren. There were many Church Elders (*Luna Ekalaria*) in these places where the people dwelt. In these various places, there were many residents, and the Prayer services would be held in the homes of some of the people, if there was no school house or meeting house at certain places... (Desha in *Ka Hōkū o Hawai'i*, August 17, 1926:3)

The above records suggest that an early school in the study area *ahupua'a* was originally situated in the vicinity of Mahai'ula-Kaulana. It then appears that by ca. 1865, the population in most of the region declined, though at Makalawena, the number of residents stabilized, thus the school and church activities focused at Makalawena until that community was all but abandoned as well in the early 1920s (cf. Chapter III above and oral history interviews in Chapter VIII).

Boundary Commission Testimonies (ca. 1873)

In 1862, the Commission of Boundaries (Boundary Commission) was established in the Kingdom of Hawai'i to legally set the boundaries of all the *ahupua'a* that had been awarded to the *ali'i* as a part of the Māhele. Subsequently, in 1874, the Commissioners of Boundaries was authorized to certify the boundaries for lands brought before them (W.D. Alexander in Thrum 1891:117-118). The primary informants for the boundary descriptions were old native residents of the land. The boundary testimonies for the *ahupua'a* of Makalawena were collected in 1873; given in Hawaiian and transcribed to English as the proceedings occurred.

Native residents, testifying before the Commissioners of Boundaries described the *ahupua'a* of Makalawena (with portions of Mahai'ula and Awake'e) as follows:

Makalawena

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Kahaialii⁹ Sworn:

I was born at Makalawena, Kona Akau Hawaii at time of Palakee Kiamoku at Honaunau. Have always lived there and know the boundaries, my parents (now dead) pointed them out to me. Commencing at the seashore, the boundary between the land of Makalawena and Mahaiula is a *kaheka* [tidal pool] called

⁹ Kaha'iali'i was also the recipient of Grant 2023 in 1854, for 401 acres—the entire coastal portion of Awake'e. It will be noted that in closing his testimony, he makes specific reference to a burial cave near the inland boundary of his land.

Kaelemiha, there is a pile of stones, a *ahu*; thence *mauka* across *aa* to a cave, a *kualapa* [ridge] close to the north side of said cave. Thence to Keanapo a *kipuka* [area of older growth surrounded by more recent lava] in the *aa* flow; from thence *mauka* to *aa* and thence to where grass is growing. Thence to Kalihi, an *Ili aina* [small land parcel], thence to Kaluaonaahi a *kihapai* [dryland cultivating area], at the corner of Kaohimaunu's land on Mahaiula. Thence along an *iwi aina* [a stone boundary wall], and old trail to the Government road. The boundary line running some distance to the north side of Huehue, thence to a high hill called Akahi. The boundary being on the brow of said hill and the South *pali* [cliff side] on Mahaiula. Thence to a place a short distance above the hill called Puuhulu, where Makalawena corners with lands of Mahaiula and Awakee, on the boundary of Kaupulehu. I do not know where Kaohimaunu's land ends. Thence turning *makai* along the *iwi aina* of Awakee, over the top of Puu Akahi to Kaumumoa a *kihapai* at the Government road. Thence *makai* to a place on the North side of an old *kihapai* called Haleoku. Thence *makai* to Hehapapawai, small water holes in a small patch of *pahoehoe*, bounding on the north side. Thence to the prickly pears growing on the *aa*, and from thence the boundary strikes across the *aa* to Kukuinapuulehu, and thence *makai* to Pohakuanaiapoapu, a large round stone. Thence to Mokupohaku or Kaiwikohola, a large rock in the surf. Makalawena is bounded *makai* by the sea, and the land has ancient fishing rights extending out to sea.

The *mauka* corner of my land [Grant 2023] on Awakee is *makai* of Kahaluu, a cave used as a burial place. Kukuikanu is the corner, and is on *aa*, *makai* of Kukuinapuulehu.

Mamae^k Sworn:

I was born in Makalawena, North Kona, Hawaii, but I do not know when (appears to be a middle aged man). Have always lived there and know a part of the boundaries, having heard where they are from the last witness. The boundary at shore between Makalawena and Mahaiula is Nahaleoahumakaiki, a *kaheka*, thence to an *ahu* called Kaelemiha... (UH-Hilo Mo'okini Library)

The remainder of Mamae's testimony follows the basic description as given by Kaha'iali'i above, and he adds — at Kukuinalahu is 'a'ā with *pili* grass growing on it; Pohakuanapapoapu is a large rock at the seashore; and the boundary then continues into the surf at the stone called Kaiwikohola (ibid.:375).

No other lands within the study area are recorded in the Boundary Commission proceedings, though testimony given for Ka'ūpūlehu does describe the northern boundary of Kūki'o and the *mauka* lands that are cut off by Ka'ūpūlehu. The information provided in the testimonies below is of particular interest, as it provides us with a record of native knowledge of upland and forest resources—identifying water holes, agricultural parcels, places where birds were hunted, and the occurrence of ceremonial sites.

Kaupulehu-Kukio

Volume B:247-250

Kelihanapule^k Sworn (Rather a young man):

I was born at Kiholo, do not know when. I now live at Kohanaiki and know the land of Kaupulehu and its *makai* [shoreward] boundaries. My *Kupuna* told them to me...Bounded on the South side by Kukio owned by Pupule; the boundary at shore is in the middle of a place called Keawaiki. The land had ancient fishing rights extending out to sea. From Keawaiki to Papaomino [Puupoopomino] a

pile of stones at the corner of Pupule's land, thence along said land to Keonehehee, a *kihapai*. Thence to Puuokai the *mauka* corner of Pupule's land. Thence along the Government portion of Kukio turning towards Kona and running *makai* side of Puhiapele, a large *Ahu aa* [rock cairn], *makai* of this hill, the boundary turns and runs *mauka* over this hill, thence to Maunakilowaa, a resting place where you look towards Kona and Kohala, thence *mauka* to Kauakahiapaoa. This is the *mauka* corner of Kukio; and there is a large hole there. Thence along the land of Mahaiula to Pahulu, *mauka* corner of Mahaiula. One half of this place belongs to Kaupulehu. Thence along the land of Kaulana to a *kihapai* called Kauaiki. This is an old *kihapai* belonging to Kaupulehu. Thence along Kaulana 2nd to Moanuahea, a hill where they used to worship, where the land called Kau joins Kaupulehu. Thence along Kau to Kaimuki, a place where they used to catch *uwau* [petrels], below the Koa woods...

Kahueal Sworn:

I was born here at Kailua at the time of building the *heiau* [probably a reference to the construction of Keikipu'ipu'i, in the land of Honua'ula; ca. 1812]. Am a *kamaaina* of Kona and now live at Puawaa [Pu'uwa'awa'a]. Know the land of Kaupulehu, my *kapuna* (now dead) told me the boundaries, he was an old bird catcher... [begins description of boundaries from the sea where Ka'upulehu joins Pu'uwa'awa'a; proceeds upland, and turn, returning along the southern boundary of Ka'upulehu and Kūki'o] ...Thence along the heads of the Kalaoas to Kaiwiopole, thence to Moanuahea, a hill, thence to Makalei an *anawai* [water cave]. (Pahulu is in the middle of Kaupulehu.) Thence to the further slope of Akahi (hill) where the boundary turns toward Kohala. Thence *makai* along Kukio to Maunakilowaa, at the Government road. Thence to Puhiapele, thence to some hills *makai*. I do not know the names. Thence along Pupule's land to shore. Bounded *makai* by the sea. Ancient fishing rights extending out to sea.

Kaulana, Mahaiula, Awakee, Maniniowali, Kukio 1 and 2 (1875-1879)

- April 6, 12, & 28, 1875; A. Cleghorn and J. Broad apply to the Minister of Interior for a lease of various lands in No. Kona, including Kaulana, Mahaiula, Awakee, Maniniowali, Kukio 1 and 2. Seeking a five year lease, J. Broad (a dairyman rancher) notes that the *makai* portion of Kukio 1, had been acquired by a person named Kahaunaele, whose father Pupule had purchased it. The places acquired by the people shall remain, not to be included within this lease. (J. Broad, April 12, 1875; State Archives)
- Between March 22, to May 19, 1879, Henry Cooper and H.N. Greenwell entered into government leases of grazing lands in Kukio and Pu'ukala. (State Archives)

An Overview of Ranching in Kekaha

Cattle, goats, and sheep had been introduced to the islands in the latter part of the 18th century and had grown at alarming rates. Handy, Handy, and Pukui (1972) observe that after their introduction, the cattle rapidly multiplied and invaded the uplands. In dry seasons, these animals even "browsed on the grass-thatched houses of the natives" (Handy, Handy and Pukui 1972:18; see also Kelly 1983, and Clark and Kirch 1983). It is also reported that goats came to be "the most destructive of all introduced grazing animals (Handy, Handy and Pukui 1972:18). Indeed, by 1815, shortly after his return to Kona from O'ahu, Kamehameha hired a few people to shoot cattle. The reproductive capacity of the cattle was alarming, and it is estimated that by 1851 there were c. 20,000 cattle on the island of Hawai'i, approximately 12,000 of them wild (Henke 1929:22).

In 1855, the King signed a law requiring all livestock owners on Hawai'i to register their brands between April 1-September 30, 1855, or else the animals would be considered government property. By October 16, 1855, thirteen individuals had complied. One of the respondents was from the Kekaha region, Papu¹⁰ of Ka'ūpūlehu; his brand recorded on October 12, 1855 (Oct. 16, 1855; State Archive, Interior Department files). Evidence of some form of early ranching in the vicinity of the study area is found in a letter dated May 28, 1861. In the letter, J.H. Kapaiki, Maiai, and Kanaina (residents of Ka'ūpūlehu), wrote to Lot Kamehameha (Kamehameha V), owner of Ka'ūpūlehu reporting that the population of goats in Ka'ūpūlehu, which had been formerly tended, had increased and moved into the uplands. The writers also reported that on April 23rd, branded goats had been hunted in Ka'ūpūlehu (State Archives, Interior Department Land Files).

Facilitated by the privatization of land ownership, the economic opportunities of ranching drew great interest from a number of the Konohiki class and a larger group of foreign businessmen. In the Kekaha region, cattle ranching primarily took place in the uplands and on the *kula* (open plain lands), while goats roamed the entire district from sea to mountains. As noted in historic records cited in this section of the study, Hawaiian residents of the Kekaha region relied on goats for some of their income and subsistence. But, the formal staking out of ranch land boundaries led to access problems for the native tenants who remained on the land. By the 1840s upland agricultural fields that had been of particular importance to residents of Kekaha were being impacted by grazing cattle. Many such fields were eventually abandoned as a result of cattle depredation (cf. Morgan 1948:128). Thus, residency that had been supported by seasonal subsistence agriculture and fishing was becoming dependent upon ranching and a western monetary system.

As ranching operations became established, leases on government and private lands were also entered into. In the 1870s and 1880s, a number of individuals, including John Broad, H. Cooper, H.N. Greenwell, J. Dowsett, A.S. Cleghorn, J. Maguire, and King Kalākaua applied for leases on large tracts of land in Kekaha (including portions of the study area *ahupua'a*). Large portions of the private- and leased-lands were dedicated to ranching operations.

The "Hawaiian Kingdom Statistical and Commercial Directory..." (1880-1881) lists two native goat ranchers in the lands of the study area— Hopulaau and Makahikuli, both in Kaulana (Bowser 1881:211,241,337). In ca. 1886, John A. Maguire founded Hu'ehu'e, or Maguire Ranch, which extended "from sea level to about 6,000 feet, with most of the lands above 1,600 feet elevation" (Henke 1929:28). The early ranch was founded on land in the *ahupua'a* of Kūki'o (Grant 2121), which had been handed down through the genealogy of Luka Hopulā'au, Maguire's wife (pers. comm. V. Ako and H. Springer). By 1886, Maguire secured a lease on portions of Ka'ūpūlehu from Bishop Estate, with lands in the Manini'ōwali-Kaulana area as well as lands further south being added by lease and purchase in succeeding years (records cited in this study). Henke reports that at one time, Hu'ehu'e had almost:

...40,000 acres, only about 12,000 of which have any great value as grazing lands. Fifteen thousand acres are held in fee simple and the balance is leased from private owners. Huehue Ranch has no government lands. The ranch carries about 2,000 grade Herefords, twenty purebred cows and some twenty purebred Hereford bulls. About 350-400 head are marketed annually...

The ranch has seven miles of pipe line which lead from tanks near a natural spring to various parts of the ranch. Huehue Ranch is fairly well supplied with fences and paddocks. Large areas of the ranch are overgrown with ferns and lantana and lava flows have rendered much of the land useless... [Henke 1929:28]

¹⁰ J.S. Emerson's survey records from 1882, place a house belonging to "Paapu" in Kūki'o 1; on the shore of Uluweuweu Bay.

Hawaiian Government Field Surveys (1882)

One of the most significant historic records of the later 19th century, in regards to documentation of Hawaiian history and the cultural landscape of Kekaha, are the Field Note Books J.S. Emerson. These fragile notebooks are housed in the collection of the DLNR-Survey Division. The Emerson field contain maps (showing residences, trails, and various features of the cultural and natural landscape of the study area), place name locations, and accounts collected by Emerson from native residents he encountered while in the field. Emerson was born in Hawai'i and had the ability to converse in Hawaiian as well, thus his notebooks are culturally richer than those of many other surveyors. Another unique facet of the Emerson field note books is that his assistant, J. Perryman was a good artist; his work helps bring to life much of the history recorded by Emerson.

At this point, it is appropriate to note that the abundance of place names in the lands of the Kaulana-Kūki'o region, tells us something about these lands. The occurrence of place names is an important indicator that the locations were significant in past times (Coulter 1935:10). Named localities may have served as triangulation points such as *ko'a* (markers for fishing grounds); residences; areas of planting; water sources; trails and trail side resting places (*o'io'ina*), such as a rock shelter or tree shaded spot; *heiau* or other features of ceremonial importance; may have been the source of a particular natural resource or any number of other features; or the names may record a particular event that occurred in a given area. It has been observed that "Names would not have been given to [or remembered if they were] mere worthless pieces of topography" (Handy and Handy with Pukui, 1972:412).

The following documentation is excerpted from the Field Note Books of J.S. Emerson. The numbered sites and place names coincide with maps that are cited as figures in text. Because the original books are in such poor condition—highly acidic paper that has darkened and made the pencil written and drawn records hard to read—the copies are not of the best quality. But importantly, the information is now being made available, and some of the place names and historical records which have been lost, may be returned to the land. *Figure 6* (Register Map 2053, ca. 1888) was compiled from several of the Register Maps produced by Emerson as a result of the 1882 surveys, and the map also includes several of the sites discussed in the field notebooks cited below.

Field Notebooks

J.S. Emerson 1882 Vol. II Reg. No. 252

West Hawaii Primary Triangulation, Kona District

Puu Anahulu Station – April 29, 1882 (see *Figure 7* for locations discussed below)

Site # 1- Lae o Kawili

Site # 2 - Lae o Awakee...

Site # 4 - Lae o Kukio iki...

Site # 6 - Kukio iki Bay

Site # 7 - Lae o Kukio nui...

Site # 9 - Kukio nui Bay

Site # 10 - Kaoahu's house in Kaupulehu Village...

Site # 13 - Lae o Kolomuo (extremity in Kaupulehu)... [Book 252:69-71]

Kuili Station – May 19, 1882 (see *Figure 8* for locations discussed below)

Site # 6 - Pohaku o Palekane: Near shore Puukala. This rock is on the ancient site of the fishpond "Paaeea" [Pa'aiea] and in the flow that started from the "Puhi a Pele" on the slope of Hualalai. It covers the land from "Lae o Keahole" to the village of "Makalawena." Kamehameha had a residence there, afterwards the flow occurring about [1801] according to Kamaainas [Book 252:127-128].

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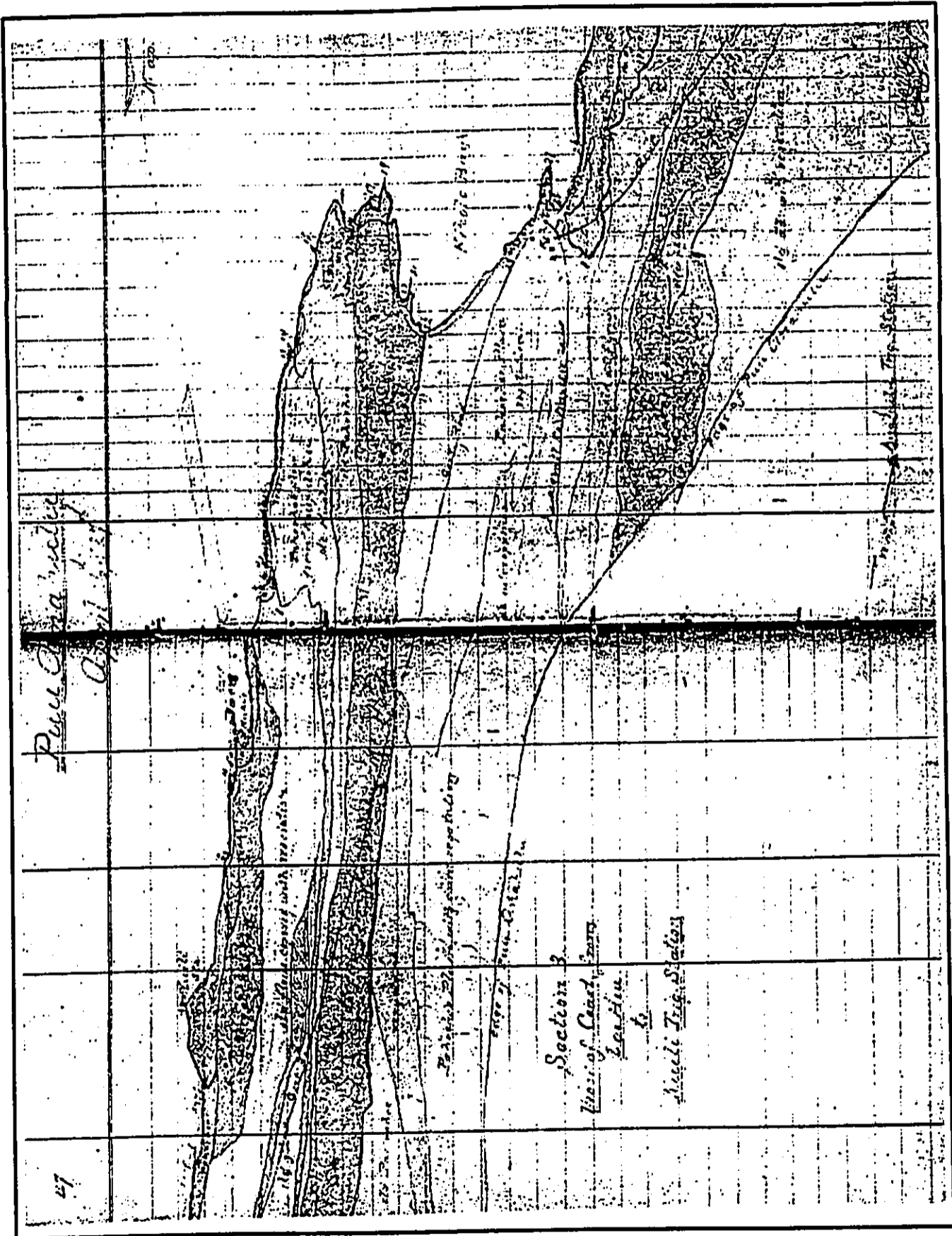


Figure 7. J.S. Emerson, Field Note Book Map – Book 252:47 (State Survey Division)

- Site # 7 - Lae o Makolea
 Site # 8 - Kapukaulua Rock; in sea off cove, Kaulana
 Site # 9 - Awalua Bay
 Site # 10 - Lae Ohiki, long sand spit, Ohiki [#11 omitted in original]
 Site # 12 - Pohakualama bay; head of bay, Mahiula
 Site # 13 - Elemakule's frame house; N. gable
 Site # 14 - Kawili Cape
 Site # 15 - Waipaoa Bay; sight on surf, Mahiula
 Site # 16 - Kaelemiha Cape, Makalawena
 Site # 17 - Puualii Bay apparent head Makalawena. This beach an ancient burying ground; skeletons disinterred by the waves at times...
 Site # 18 - Makalawena School House
 Site # 19 - Chain of rocks in bay
 Site # 20 - Lae o Kaiwikohola. Owes its name to the death of a whale that was unfortunate enough to wedge himself in the rocks while in chase of a canoe.
 Site # 21 - Awakee Bay
 Site # 22 - Kahoiawa Cape, Awakee
 Site # 23 - Kalohuhui, Boundary between Awakee and Maniniowali.
 Kuili Tomb - Grave of Laanui, former owner of this land of Awakee, buried August 1879...^[11]
 Site # 24 - Lae o Punaloa, Maniniowali
 Site # 25 - Kua Bay, sand beach Maniniowali

It will be noted that the *mauka-makai* trail from Makalawena to the uplands is identified as "Trail connecting with Government Road" on this 1882 sketch.

(see Figure 9 for locations discussed below)

- Site # 26 - Lae o Papiha, rock cape Maniniowali
 Site # 27 - Kakapa Bay, Kukio iki - site of one of Kamehameha's old "heiaus" now destroyed by the sea—D 3°9'0".
 Site # 28 - Lae o Kikaua - Named in honor of Kikaua, the husband of Kahawaliwahi, who was slain by Pele for not giving "kapa"... [Book 252:129-130]
 Site # 29 - Paapu's new *lauhala* house in Kukio Village, Kukio nui.
 Site # 30 - Uluweuweu Bay in Kukio nui.
 Site # 31 - Kumukea - from the white surf, Kukio nui.
 Site # 32 - Kapilau Bay - head of bay, Kaupulehu... [Book 252:131-132]
 • Poopoomino - very flat and insignificant
 • Muheenui - in Kukionui "the large cuttle fish"
 • Puu Kolikoli (red; [cf. kolekole]) - in Kaupulehu "hill of red āā"
 • Kahoowahapuu - in Maniniowali. Carrying a person whose arms are around the carriers neck.
 • Kalehua - in Makalawena. Named after "Lehua" who was a *kupua* and chief of this place... [Book 252:135-136]
 • Pohakuanaeapuapo - Used as a whetstone for fish hooks from old times. Between Awakee and Makalawena.
 • Nahaleomakaiki - "Ahumakaiki was the Konohiki of Makalawena in Kamehameha's time. Between Makalawena and Mahiula. [Book 252:137-138]

¹¹ Barrère (1994) reports that the chiefess 'Akahi had an uncle by the name of La'anui. 'Akahi received Makalawena in the Māhele, and it was through her relationship to Chiefess Pauahi Bishop, that Bishop Estate came into possession of Makalawena (1994:1-3).

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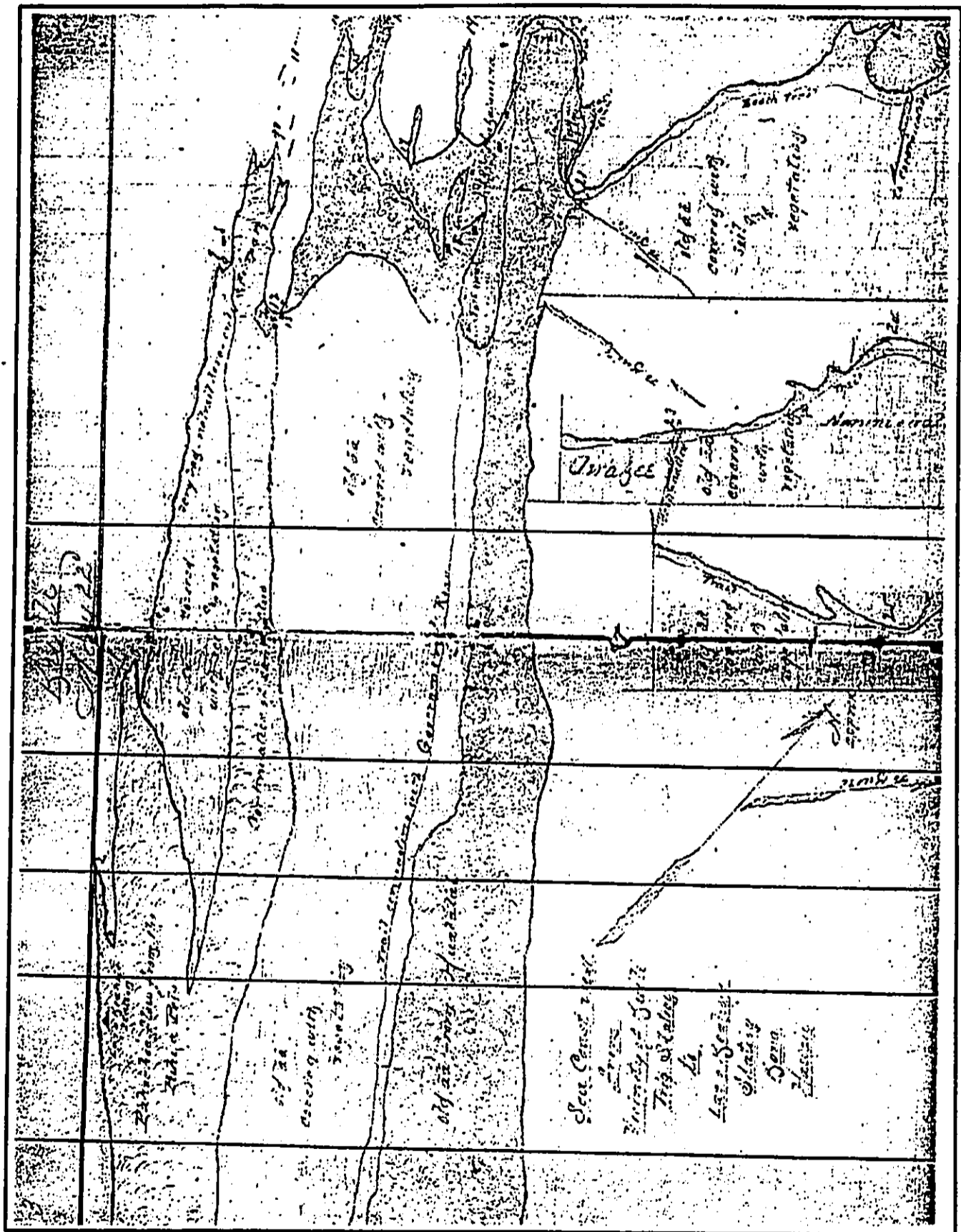


Figure 8. J.S. Emerson, Field Note Book Map – Book 251:3 (State Survey Division)

J.S. Emerson, Vol. III Reg. No. 253 (1882)

West Hawaii Iry Triangulation Kona District

- ...Maniniowali derives its name from the numbers of "Manini" fish...
[Book 253:17-18]

Akahipuu Station – May 29, 1882

(see Figure 10 for locations discussed below)

- Site # 39 - Kapukaulua, in Awalua; called from the "ulua" fish
- Site # 40 - Awalua Bay, in Awalua
- Site # 41 - Sand Spit in Ohiki
- Site # 42 - Lae Ohiki in Ohiki
- Site # 43 - Pohakualama in Mahiula
- Site # 44 - Single coconut tree in Mahiula
- Site # 45 - Lae o Kawili in Mahiula
- Site # 46 - Waipaoa Bay in Mahiula
- Site # 47 - Elemakule's frame house, in Mahiula Village; six grass houses
- Site # 48 - Kaelemiha Cape in Makalawena
- Site # 49 - Puualii Bay in Makalawena

(see Figure 11 for locations discussed below)

- Site # 50 - Makalawena School House in Makalawena ("trail to Govt. Rd." on left of page)
- Site # 51 - Chain of rocks in bay
- Site # 52 - Lae o Kaiwikohola, near boundary
- Site # 53 - Awakee fishpond, lava S. side
- Site # 54 - Awakee fishpond, lava N. side
- Site # 55 - Lae o Mano in Awakee
- Site # 56 - Lae o Mano extremity of reef
- Site # 57 - Kepuhi bay
- Site # 58 - Kuili, S. base
- Site # 59 - Kuili, bottom of slope
- Site # 60 - Kuili, N. base
- Site # 61 - Lae o Papiha in Kukio iki
- Site # 62 - Kapuahimanini rock in Maniniowali (in sea)
- Site # 63 - Kakapa Bay in Kukio iki
- Site # 64 - Lae o Kikaua in Kukio iki
- Site # 65 - Uluweuweu Bay in Kukio nui
- Site # 66 - Pohakuokeawe in Kukio nui
- Site # 67 - Lae o Kumukea near boundary
- Site # 68 - Kahuwai bay in Kaupulehu... May 29, 1882
- Site # 1 - Kahoowahapuu in Maniniowali
- Site # 2 - Puu Papapa in Kukio
- Site # 3 - Muheenui in Kukio... May 30, 1882 [Book 253:31-39]

J.S. Emerson, Vol. IV Reg. No. 254 (1882)

Primary Triangulation West Hawaii Kona District

Kuili [station]

A prominent hill on the sea coast in line with the Western slope of Mt. Hualalai, and is situated in the *ahupuaa* of Awakee. Its most distinguishing feature is the tomb which was erected on the top to the memory of a former owner of that land. The underground marks are an assortment of tins and a copper triangle. The stones above ground are close to the signal and 1 foot distant. [Book 254:page 123]

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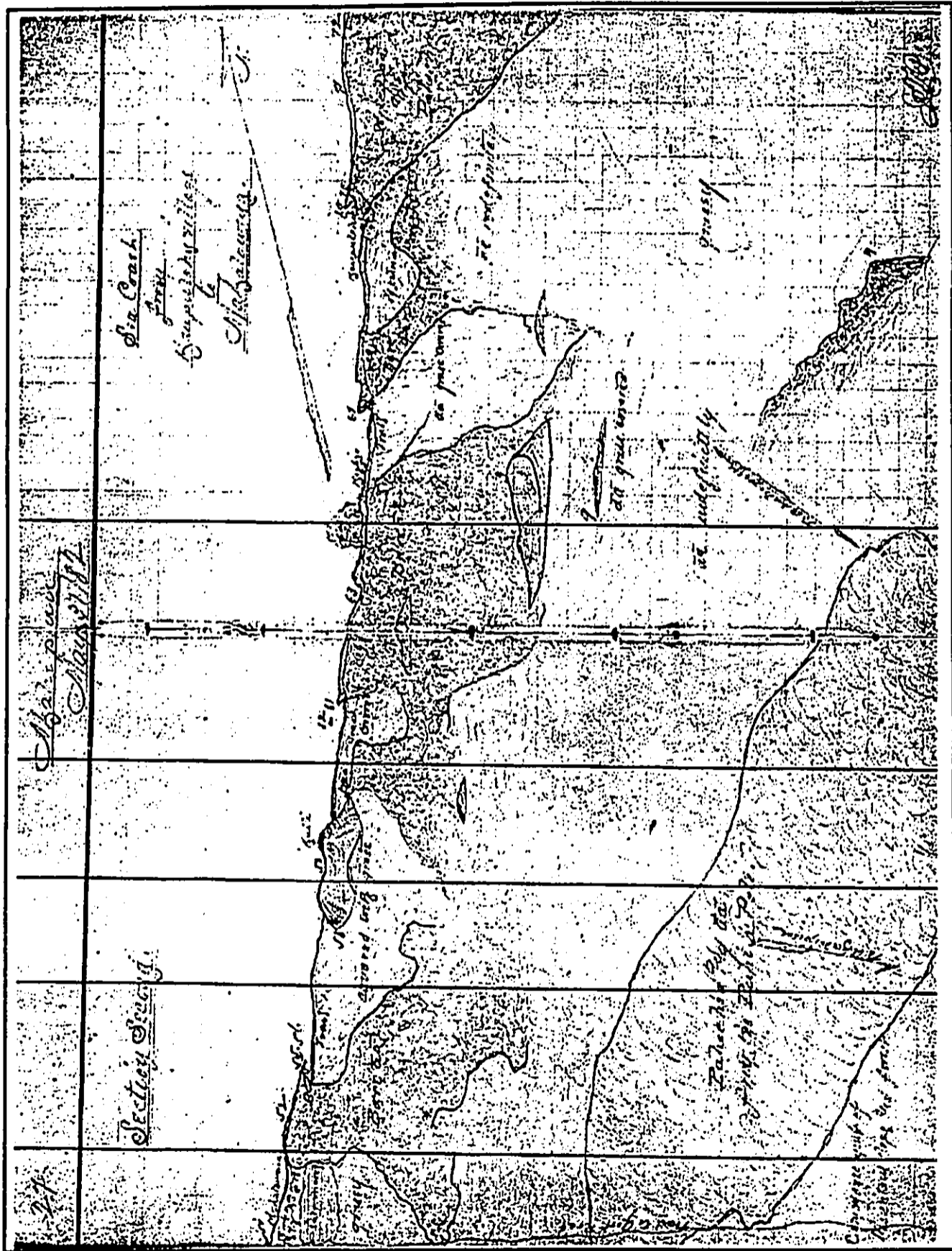


Figure 11. J.S. Emerson, Field Note Book Map - Book 253:27 (State Survey Division)

Homestead Act of 1884

In the 1880s, the Hawaiian Government undertook a program to form Homestead lots—a primary goal being to get more Hawaiian tenants in possession of fee-simple property (Homestead Act of 1884). Land throughout Kekaha, including portions of Kaulana, Mahai'ula, Awake'e, Manini'owali, and Kūki'o were subdivided for this purpose. Because it was the intent of the Homestead Act to provide residents with land upon which they could cultivate crops or graze animals, most of the lots were situated near the *mauka* road that ran through North Kona. Between ca. 1887 to 1895, a number of people, most of whom were long-time residents of the lands they sought for homestead purposes, applied for lots. The Homestead Act allowed for lots of up to 20 acres, but throughout Kekaha, native residents observed that their present land holdings are insufficient "to live on in every respect" they note that because of the rocky nature of the land, goats are the only animals which can be raised in an effort to make a living. Thus, the native residents state there was a need for larger parcels that they could use for grazing land (State Archives—Land File, December 26, 1888, and Land Matters Document No. 255).

Another facet of the Homestead program, was the requirement for surveying lots that were leased or granted to the applicants. Returning to Kona in 1888, J.S. Emerson once again provides us with valuable historical documentation in his letters to W.D. Alexander, Surveyor General in the Kingdom of Hawai'i. Writing from 'O'oma, Emerson speaks highly of the Hawaiian families of Kona, and describes the land and weather conditions. He also addresses questions to Alexander on the status of the lands of Awake'e and Kaulana, reports the plans of John Maguire to "settle" in Kona, and notes some discrepancies in Maguire's acquisition of certain parcels of land.

April 8, 1888

Our tent is pitched in Ooma on the *mauka* Govt. road at a convenient distance from Kama's fine cistem which supplies us with the water we need. The pasturage is excellent and fire wood abundant. As I write 4:45 P.M. the thermometer is 71°, barometer 28.78. The entire sky is overcast with black storm clouds over the mountains. The rainy season comes late to Kona this year and has apparently just begun. We have had about three soaking rains with a good deal of cloud & drizzle. We are now having a gentle rain which gladdens the residents with water for their cisterns... The native welcome us and do a great deal to help the work along. Tomorrow I expect to go to Kuili station with a transit and make a few observations & reset the old signal... The Kamaainas tell me that Awakee belongs to Gov't. though I see it put down as LCA 10474 Namauu no Kekuaaoa.

They also tell me that the heirs of Kanaina estate still receive rent for the Ahupuaa of Kaulana, though I have recorded as follows in my book, Kaulana ½ Gov't. per civil Code 379, ½ J. Malo per Mahele Bk. Title not perfected; all Gov't. Please examine into the facts about Kaulana and instruct me as to what I shall do about it. Kealoha Hopulaau rents it and if it is Gov't. land the Gov't. should receive the rent or sell it off as homesteads. It is a desirable piece of land, a part of it at least...

J.S. Emerson (signed)

April 17, '88

...The work is being pushed rapidly and steadily forward. The natives render me most valuable assistance and find all the important corners for me as fast as I can locate them. It is hard getting around on account of the rocks & stones, to say nothing of trees etc., but there is a great deal of really fine land belonging to the Government, admirably adapted to coffee etc. The more I see of it the better it appears.

As to Kaulana, if I hear nothing to the contrary from you, I will leave it all as Gov't. land.

Mr. McGuire [sic] of Kohala, the representative for that district, proposes to settle in Kona. He has bought Grant 1590, Kauhine, in Ooma, Kalaoa etc. and wants the Gov't. to make good to him the amount taken from him by Grants 2972, Kaakau & Kama, and 3027, Hueu, which occupy portions of the same land granted to Kauhine. If his title is good, would it not be just to leave Kaakau & Kama as well as Hueu in possession of their lots where they have lived for over 20 years, and give McGuire an area in adjoining lands equal to that taken from him by these two grants...

Yours truly,

J.S. Emerson (signed)

[State Archives, HGS Jan.-Apr. 1888]

The files of the Hawaiian Government Survey (HGS) in the State Archives are not indexed, and it is likely that a detailed search of the files will provide further documentation for the area.

On August 2nd, 1886, King Kalākaua entered into a lease for the Government land of Kūki'o No. 2, Manini'ōwali No. 1, and Mahai'ula, at yearly rental fee of \$5.00 per *ahupua'a*, and Kaulana at a yearly rental fee of \$10.00. The lease specified that:

...the above mentioned lands are let subject to the express condition that at any time during the term of this lease, the Minister of the Interior may at his discretion peaceably enter upon, take possession, and dispose of such piece or pieces of land included in the lands hereby demised, as may be required for the purpose of carrying out the terms and intent of the Homestead Laws... (Government Lease No. 364; Land Management Division)

Additional records from the files of the Hawaii State Archives document the following land transactions for homestead and grant parcels in lands of the study area:

- Interior Department Document No. 184 (ca. 1888); J.W.H. Isaac Kihe and 70 native residents of the Kekaha region petitioned W.D. Alexander, Surveyor General, asking that the Government lands of Kaulana, Mahai'ula, Awake'e, and Kukio 1&2, on the *mauka* side of the Government Road, be cut into homestead lots. The petitioners also ask that the lands be granted to the destitute residents, and not to the rich people (State Archives).
- July 26, 1888; John A. Maguire applied to purchase *mauka* portions of Government land remnants in Maniniowali, Awakee, Kaulana and Mahaiula. Having completed a survey the subject lands on Sept. 8, 1888, Lot 20 in Awake'e (20 acres), and Lot 21 in Kukio 1&2 and Maniniowali (84 acres), were sold to J.A. Maguire in Royal Patent Grant 3438 (Division of Land Management).
- Interior Department records of January 22, 1889; His Majesty David Kalākaua informed the Minister of Interior that he is willing to give up such land as necessary—in Kūki'o 2, Maniniowali, Mahaiula, and Kaulana etc.—pursuant to government interests in developing homestead lots. Kalākaua also informs him, that he desires to retain the balance of said lands (State Archives). On August 2, 1889, Government Lease No. 364, to King Kalākaua was terminated (Land Management Division).

- On March 4, 1889; J.S. Emerson reported that surveys of lots 34A & 34B in Kūki'o and Maniniowali, had been completed, and the lots to be sold at auction. (State Archives)
- On February 11, 1890; H. Waipu'ilani wrote to the Minister of Interior, reporting that several natives have requested that Kūki'o be divided into homestead lots (State Archives).
- February 22, 1890; J.W.H. Isaac Kihe wrote to Minister of Interior, L. Thurston on behalf of J.S. Makini; J.K. Keo Kaia; J. Pakiai; Hanauwaha Solomona; Palapala Joseph; Moeino; and Kekai, stating their interest in acquiring homestead lands in Kaulana 1 & 2, Mahai'ula, Awake'e, and Kūki'o 1 & 2. Interior Department Document No. 308, notifies the applicants that as soon as a surveyor can be located, the lands will be divided, as requested. (State Archives)
- July 3, 1890; On behalf of 64 applicants, J.W.H. Isaac Kihe wrote once again to the Minister of Interior, Chas. Spencer:

We are tax payer living on lands lying between Kealakehe and Kapalaoa. We are without lands of our own, and petition you to give all Govt. Lands in this District (No. Kona) to poor natives who have no land. We again ask that these Govt. lands be surveyed & laid out and divided amongst the natives till all the poor are supplied with lands.

We ask that lands be not given to rich persons by way of sale or lease, and if the lands are to be leased we ask that they be leased to the poor natives... We also ask that surveyors be sent up to survey and lay out Govt. lands of Kaulana, Mahaiula, Kukio 1 & 2, *mauka* of the Govt. Road... (State Archives)
- October 3, 1890; John A. Maguire applied to purchase *mauka* portions of Government land remnants in Kaulana, Mahaiula &c... The land can be adapted to grazing. (Division of Land Management)
- December 3, 1894; John A. Maguire applied to the Minister of Interior to purchase various Kona lands, including the remnant Government lands in Kukio and Awakee. A disagreement over subdivision of the parcels into Homestead Lots occurs, and is resolved by the following agreement. (Division of Land Management)
- July 30, 1896; W.A. Wall recorded the survey of 127 acres of Government land, being a portion of Kukio, Maniniowali, and Mahaiula; sold to J.A. Maguire in Homestead Agreement No. 3953. (Division of Land Management)
- On May 27, 1903, John Ka'elemakule Jr. purchased Royal Patent Grant 4723 in the lands of Mahai'ula and Kaulana. The land purchased was in two parcels, one a 40 acre beach lot in the *ahupua'a* of Kaulana and Mahai'ula—including the land in Mahai'ula on which his father was raised; and a one acre lot in Kaulana, in which his ancestors were buried (Figure 12). Detailed descriptions of the families traditional residence on these lands of Kaulana and Mahai'ula, as written by John Ka'elemakule Sr., is present below in *Chapter V*.

V. NĀ MO'OLELO 'ŌIWI — NATIVE TRADITIONS WRITTEN BY AND ABOUT THE LANDS AND PEOPLE OF KEKAHA (CA. 1900-1929)

Historical Overview

Contemporary researchers have varying opinions and theories pertaining to the history of Kekaha, residency patterns, and practices of the people who called Kekaha-wai-'ole-o-nā-Kona home. For the most part, our interpretations are limited by the fragmented nature of the physical remains and historical records, and by a lack of familiarity with the diverse qualities of the land. As a result, most of us only see the shadows of what once was, and it is difficult at times, to comprehend how anyone could have carried on a satisfactory existence in such a rugged land.

Through the work of two native residents of Kekaha (recently translated from the original Hawaiian texts), we are given the opportunity to share in the history of the land and sense the depth of attachment that native residents felt for Kekaha-wai-'ole-o-nā-Kona. The two primary authors of the narratives cited in this section of the study are:

John Whalley Hermosa Isaac Kihe (a.k.a. Ka-'ohu-ha'aheo-i-nā-kuahiwi-'ekolu) was born in 1853, his parents coming from Honokōhau and Kaloko. During his life, Kihe taught at various schools in the Kekaha region, served as legal counsel to native residents applying for homestead lands, worked as a translator on the Hawaiian Antiquities collections of A. Fornander, and was a prolific writer himself. In the later years of his life, Kihe lived at Pu'uanahulu, and he is fondly remembered by elder members of the Pu'uanahulu-Ka'ūpūlehu area. Kihe, who died in 1929, was also one of the primary informants to Eliza Maguire, who translated some of the writings of Kihe, publishing them in abbreviated form in her book "Kona Legends" (1926).

John Ka'elemakule Sr. was born in 1854 at Kaumalumu, North Kona, when his grandfather, Chief Kinimaka, was overseeing construction of the public works project that became known as "Judd Trail." When he was six months old, he was taken to Mahai'ula where he was raised by family members—native residents of the that land. In his life, Ka'elemakule was instructed in the customs and practices of native fishermen of the Kekaha region, and himself became a lead fisherman of Kekaha. He was also a teacher at Makalawena School, served as a Government Land Agent for North Kona, was the postmaster at Kailua, and proprietor of Ka'elemakule Store in Kailua. Like Kihe, Ka'elemakule was also a prolific writer.

The original narratives cited below, were located in the Hawaiian language newspaper *Ka Hōkū o Hawai'i*, published in Hilo between 1906 to 1948. In its columns, the writers, who lived on the land and who were intimately acquainted with its resources, share some of their history—the traditional accounts handed down from their *kāpuna*, and the historic events of their own lifetimes. Several of the articles were published in serial form and ran anywhere from a few weeks at a time, to as long as four years. The selected narratives include descriptions of the ancient and historic communities of Kekaha—the lands of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'owali, Kūki'o, and Ka'ūpūlehu. The translations, presenting the key documentation and summaries of the full records, were prepared by the author of this study. Some of the narratives are offered here in English for the first time since their telling, and are generally presented chronologically, earliest narratives to the most recent.

**Nā Mo'olelo o ka Wā Kahiko —
Traditions of the Period Predating 1801**

**“Ka'ao Ho'oniua Pu'uwai no Ka-Miki”
(The Heart Stirring Story of Ka-Miki)**

The story of Ka-Miki is a long and complex account, that was published over a period of four years (1914-1917) in the weekly Hawaiian-language newspaper *Ka Hōkū o Hawai'i*. The narratives were primarily recorded for the paper by Hawaiian historians John Wise and J.W.H.I. Kihe. While “Ka-Miki” is not an ancient account, the authors used a mixture of local stories, tales, and family traditions in association with place names to tie together fragments of site specific knowledge that had been handed down over the generations. Thus, while in many cases, the personification of individuals and their associated place names may not be “ancient,” the site documentation within the “story of Ka-Miki” is of both cultural and historical value. The English translations below, are a synopsis of the Hawaiian texts, with emphasis upon the main events of the narratives. Also, when the meaning was clear, diacritical marks have been added to help with pronunciation of the Hawaiian.

The story of Ka-Miki is an account of two supernatural brothers, Ka-Miki (The quick, or adept, one) and Maka'iole (Rat [squinting] eyes), who traveled around the island of Hawai'i along the ancient *ala loa* and *ala hele* (trails and paths) that encircled the island. During their journey, the brothers competed alongside the trails they traveled, and in famed *kahua* (contest fields) and royal courts, against *'olohe* (experts skilled in fighting or in other competitions, such as running, fishing, debating, or solving riddles, that were practiced by the ancient Hawaiians). They also challenged priests whose dishonorable conduct offended the gods of ancient Hawai'i. The narratives include discussion on approximately 800 place names of the island of Hawai'i. The excerpts below, are presented as associated with specific place names of interest to this study.

**Selected References
to Places and Events:**

- Kohanaiki, Kaloko
- Kekaha regional sites
- Hualālai sites

Narrative:

Born in 'e'epa (mysterious) forms, Ka-Miki and Maka'iole were the children of Pōhaku-o-Kāne ^(k) and Kapa'ihilani ^(w), the *ali'i* of the lands of Kohana-iki and Kaloko. Maka'iole was the first born child and Ka-Miki was the second. Following their birth, Ka-Miki was given up for dead and placed in the cave of Pōnahanaha. Ka-Miki's ancestress, Ka-uluhe-nui-hihi-kolo-i-uka (The great entangled growth of *uluhe* fern which spreads across the uplands) retrieved Ka-Miki from the cave and reared him at Kalama'ula on the heights of Hualālai. Ka-uluhe was one of the body forms taken by the goddess Haumea, also known as Papa and Hina (the goddess who gave birth to the islands, a creative force of nature). Ka-uluhe was also the foremost goddesses called upon by priests and people who experts in fighting and competitions.

- Kekaha regional sites
- Waipi'o and Mauna Kea

Fetching the water of Kāne
and 'awa of Waipi'o

Having rescued Ka-Miki, Ka-uluhe and Kanakaloa, another elder relative, began instructing Ka-Miki in the uses of his supernatural powers, and during the training, Maka'iole also joined his younger brother. Together, the boys learned all manner of skills necessary for them to take their journey around the island of Hawai'i. After their training was completed, Ka-uluhe had the brothers go to Mauna Kea to fetch the sacred water of Kāne, and to get the sacred 'awa of Luanu'u from Waipi'o to be used in their graduation ceremony. Having successfully gotten the necessary water and 'awa, the boys returned to Ka-uluhe's compound. Outraged at the theft of his 'awa, the ghost-god Luanu'u and his hordes of ghosts followed Ka-Miki, and it is at this point in the narrative that we learn about some of the features and naming of sites in Makalawena (January 8 to March 12, 1914)...

- Makalawena

**Selected References
to Places and Events:**

• Makalawena

• Luanu'u is captured; his eyes
are used as the *pūpū 'awa* for
the 'ailolo ceremony

• Ku'una-a-ke-akua

• Ka-Miki takes the bodies
of Luanu'u mā to Makalawena
and sets them in the ocean at
Ku'unaakeakua.

• Kapu'uali'i

• Kaulu

• Malama (the *kula* or plain land)
of Inland Makalawena
-Kekaha

• Fishing custom at
Makalawena

Narrative:

Makalawena (Interpretive translation: Released [in the] red glow; descriptive of the sunrise on the morning the ghost god Luanu'u and his defeated companions were released in the ocean at Ku'unaakeakua)

While Ka-uluhe was preparing for the 'awa and 'ailolo (graduation) ceremonies of Ka-Miki and Maka-'iole in the uplands of Kalama'ula, the ghost-god king Luanu'u-a-nu'u-pō'ele-ka-pō (also called Pahulu) and his ghost hordes arrived at Kaukahōkū. Ka-Miki quickly ensnared Luanu'u mā in the supernatural net of Ka-uluhe, called Halekumuka'aha (also called Ku'uku'u). Ka-Miki pulled the net so tightly that Luanu'u's eyes bulged out and were used by Ka-uluhe for the *pūpū 'awa* ('awa drink relish) in the 'ailolo—completion of training ceremonies performed for Ka-Miki and Maka-'iole at Kaukahōkū (March 12, 1914).

Ku'una-a-ke-akua (Literally: Releasing or setting down the ghosts)

Following the ceremonies, Ka-Miki took the net filled with the bodies defeated ghost king and his followers and released them at a place between Kapu'uali'i¹² and Kaulu¹³ along the shore of Makalawena. The site at which this occurred is now called Ku'una-a-ke-akua. Hio, a guardian and messenger of Luanu'u-a-nu'u-pō'ele-ka-pō was one of the few ghosts to escape, thus he wanders Kekaha to this day. Because of this event, there is a *kapu* (restriction) which is observed while fishing along the points of this shore line—

A 'oia ke kapu o kēia mau makalae i nā po'e lawai'a 'upena o ka pō, a'ole e kama'ilio e hele ana i ke 'upena ku'u. A pēlā ho'i ka lama o ka pō, a'ole e kama'ilio a koi alu e hele kākou; a ke hele 'oe e ho'i nele ana 'oe i ke kula o Malama, a'ohē mea loa'a iā 'oe, e 'ike ana 'oe i ka weli o ke kai e lalapa ana e la'a no 'oe o ka uwila — This is the restriction to be observed along these shores; the night net fishermen, do not speak of going to set nets, nor do the torch fishermen speak of torching, or urge others to go along, because if you do go, you will return empty handed to the plain of Malama, you will get nothing but the wrath of the sea striking at you like lightning.

Those who wish to fish here should say:

E pi'i kākou i uka i kula pa'a kō-kea, i kula 'uala, i ka leo o ka manu — Let us ascend the plain to which the *kō-kea* sugar cane is held fast, the plain upon which sweet potatoes are planted, and where the voices of the birds are heard.

Perhaps then you will not meet with any strange occurrences when you go net fishing and such. To this day, when someone eats the heads of the 'anae, uoa, weke lā'ō, and the *palani-maha-ō'ō* (fish which are among the body forms of Luanu'u-a-nu'u-pō'ele-ka-pō and his companions) they see strange things. To prevent this, the bones of the fish should be tossed back and the diner should say—*Eia kāu wahi e Pahulu* (Here is your portion o Pahulu). (March 19, 1914)

¹² Ka-pu'u-ali'i (The chief's hill or mound; Pu'u-ali'i or One-o-pu'u-ali'i). Kapu'uali'i is a sand dune along the shore of Makalawena.

¹³ Ka-ulu (The ledge or plateau) describes a sand dune formation, which is opposite of Kapu'uali'i, with Ku'unaakeakua lying between the dunes; this place name is written as "Kū'ula" in the *Ke Au Hou* version of the legend.

**Selected References
to Places and Events;**

Narrative:

After having discarded Luanu'u mā, Ka-Miki netted some fish and returned to Kalama'ula. A chant is used to describe the fish of this district – *mele paha*

*O ka 'anae holo o Kapu'uali'i
O ka uoa o ka pu'e one o Kaulu*

The mullet school is at Kapu'uali'i
The uoa are from the waters fronting the
sand mounds of Kaulu

O ka weke-lā'ō o nā Maka-o-Kāne

The weke-lā'ō are from the waters of
Maka-o-Kāne

*A me ka palani-maha-ō'ō o
Ku'unaakeakua*

And the palani come from
Ku'unaakeakua (3/26/1914)

While being instructed in *nou pōhaku* (sling stone fighting techniques), the boys learned about their elder Kanakaloa, and sites in Manini'ōwali, Kūki'o, and Ka'ūpūlehu that were associated with him:

**Selected References
to Places and Events;**

Narrative:

- Kanaka-loa
- Mūhe'e-nui
- Ka-ho'owaha

Kanaka-loa (Long man) On the hill of Mūhe'enui in Kūki'o.
Mūhe'e-nui (Large cuttlefish) In the land of Kūki'o, named for the wife of Kanakaloa.

Ka-ho'owaha (To carry something on one's back; cf. Emerson in this study) In the land of Manini'ōwali.

- Kanakaloa
- Mūhe'enui
- The ko'a of Kanakaloa
- The ko'a Kaho'owaha

The place called Kanakaloa was named for the defied sling stone fighting master, and brother of Kū-mua-a-lau-a-hanahana, husband of Ka-uluhe-nui-hihi-kolo-i-uka. Near the boundary of Ka'ūpūlehu and Kūki'o, is the hill Mūhe'enui, also called Ka-lā-malo'o-o-Mūhe'enui. On the ridge of the hill is a long stone like no other, which is the form of Kanakaloa. The Kanaka-loa stone is one of the ko'a triangulation stations for deep sea canoe fishermen, who used the ko'a lawai'a kūkaula (deep sea hand line fishing grounds) of Kaho'owaha. Another one of the markers is the hill called Kaho'owaha in Manini'ōwali.

- Kekaha regional sites
- Ka'ūpūlehu sites

Kanakaloa was the fierce warrior (fighting bonito) of the Pu'uhinuhinu and 'Ua'upo'o'ole hills in the ūlei covered region of Hikuhiā. Kanakaloa was skilled in wrestling, bone breaking and sling stone fighting, no one could compete with him. The region around Hikuhiā, associated with Pu'u-hinuhinu-o-'Ua'u-po'o'ole, a gullied hill, and the lands named Kapipā (above Pu'unāhāhā and Pu'umau'u) were once famed for *kimopō pōwā* (thieves and robbers) who waylaid travelers along the trail which led to Mauna-kilohana, (towards Mauna Kea) from Ka'ūpūlehu; the bones of many of their victims were left along the trail. Kanakaloa rid the region of these thieves and robbers... (June 18, 1914)

While at Kalāhiki (Kona), in the *hālau wa'a* (canoe sheds) of Kuaokalā with Kūalaka'i and his fishermen, Ka-Miki described some the famous fishing grounds, canoe landings, and coastal features of Kekaha with the following narrative:

**Selected References
to Places and Events;**

Narrative:

- Ka'ele-huluhulu
- How Ka'elehuluhulu came to be named

Ka'elehuluhulu - (Splintered or frayed outer hull of a canoe) In the land of Kaulana:

He wahi iki wale no i kapa 'ia ai o Ka'elehuluhulu, o ke kaulana na'e nui ke kaulana...Aia he wahi puka kai, a he kōwā ma kēia wahi puka, a ma kēia wahi kōwā e

**Selected References
to Places and Events:**

- How the canoe landing of Ka'elehuluhulu came to be named

Narrative:

komo ai nā wa', a aia i waena o kēia kōwā he wahi pu'u pāhoehoe i kapa 'ia o Ka'elehuluhulu. He kai mauka a he kai no ho'i makai, a inā e holo i ka lawai'a hi-aku i ka wana'ao, ma kēia puka e puka ai.

A inā e holo aku a ua emi ke kai, 'oia ho'i kai make a malo'o, alaila, tele nā kānaka apau ilalo a kauō i ka wa'a maluna o kēia pu'u pāhoehoe a hā'ule makai iloko o ke kai, a kau a holo aku. A pēlā no ke ho'i mai ma kēia wahi, inā no ua kai make e kauō hou ana no ka wa'a a hā'ule mauka a holo aku a hiki i ke awa pae. A no ke kauō mau i ka wa'a a huluhulu o lalo i kapa 'ia ai o Ka'elehuluhulu...

It is just a small place which is called Ka'elehuluhulu, but the fame of this landing is great... There is a place to enter the ocean here with a channel, and in the middle of this channel which the canoes use to enter, is a mound of pāhoehoe called Ka'elehuluhulu. There is water to the inland and seaward of this stone, and if one goes aku fishing even at dawn, this is the exit one must depart from.

If the sea water was shallow, that is at low tide; all in the canoe would leap out to bear the canoe above this pāhoehoe mound and place it in the ocean, then they get back into the canoe and travel away. If when they return to this place, and the tide is low, they bear the canoe upland of the stone and place it in the water, and then paddle to the canoe landing. It is because of this continual hauling of the canoes [over the pāhoehoe], that the hulls became rough or furry in texture, and so "The rough-furry hull" came to be named.

In further description of the lands of Kaulana and Mahai'ula areas neighboring them, Ka-Miki told Kūalaka'i mā (and companions):

**Selected References
To Places and Events:**

- Ka'elehuluhulu, Hale'ohi'u, the ko'a of Kanāhāhā, and canoe landing of Keawehala

Narrative:

O Ka'elehuluhulu ka 'āina, o Hale'ohi'u ka ahupua'a, Kanāhāhā ke ko'a, o Keawehala ke awa pae – Ka'elehuluhulu (in Kaulana) is the name of the land, Hale'ohi'u is the land division, Kanāhāhā is the fishing ground (of Kaulana-Mahai'ula), and Keawehala at Mahai'ula is the canoe landing (November 5, 1914).

While in the district of Hāmākua, Ka-Miki was challenged to a contest by Koapapa'a, a champion of that district. Koapapa'a compared himself to the yellow backed crab (i.e. fierce warrior) of the cliffs of Pau'ewalu. In answering him, Ka-Miki described a place somewhere in Kekaha, which was noted for it's forsaken ghosts:

**Selected References
to Places and Events:**

- Kūhulukū (a pit of foresaken ghosts)

Narrative:

A he 'oia'i'o ka ho'i, o 'oe i'o ka o Koapapa'a ulu ai a kuanea a'e i ka lua 'ia ai o Kūhulukū kēlā wahi akua mālika o nā Kekaha wai'ole e waiho ala i ku'u 'āina ku pōlua i ka la'i la... – Indeed it is true, you most certainly are Koapapa'a, forsaken there in the pit of Kūhulukū (Goose flesh or chill), that place from which ghosts imploringly look out of, there at Kekaha-wai'ole my land of the two fold calm... (October 5, 1916).

As the account draws near to its conclusion, Ka-Miki has completed his circuit of the island of Hawai'i, returning to Kona, he sets out to secure a place of honor and favor in the court of the chief Pili-a- Ka'aiea. Following a series of events, Ka-Miki became a favorite of the chief Pili-a-Ka'aiea. The narratives include descriptions of various sites in Kekaha, including on-land and ocean fishery

sites in the *ahupua'a* of Hale'ohi'u, Awalua, Kaulana, Mahai'ula, Makalawena, Kūki'o, and Ka'ōpūlehu:

**Selected References
to Places and Events:**

- *Aku* fishing with the sacred lure Kaiakeakua
- Kumukea-Kāhuli-Kalani, the sacred *aku* brought from Kahiki by Pā'ao
- Fishing customs of Kekaha

Narrative:

...Desiring to go fishing, Ka-Miki asked if Pili had a *pā* (mother of pearl lure) for *aku* fishing. Pili called his priest Ku'eho'opi'okalā (of Ahu'ena) asking for the royal lures. After looking at, and rejecting several of the lures, Ku'eho'opi'okalā brought out the sacred lure Kaiakeakua, which was the inheritance of Pili. The chief then told Ka-Miki, "My beloved son here is the *pā-kaoha* (lure inheritance) of my ancestors." Ka-Miki looked at the lure and told Pili, "This is the lure that will catch *Kumukea-Kāhuli-Kalani*!" ...Ka-Miki arose when the star *Kau'ōpae* (Sirius) appeared [3 am], for this was the time when canoe fleets made ready to depart for the fishing grounds of Kekaha. The fishermen of those days were industrious, but if there was one who over slept, that one would be remembered by the saying:

O moe loa ke kāne, o nānā wale ka wahine, o ki'ei wale ke keiki — When the husband sleeps long, the wife is left looking on, and the child peers about [When a lazy man does not care for his family, they are left looking for a means of survival]

- Kekaha regional sites and fishing grounds
- Kaiwi Point
- Ahuloa
- The shark god Niho'eleki

Ka-Miki had his companions Uhalalē and Uhalali board the canoe, and told them not sit on the seat lest they fall from the canoe (October 4, 1917). With one push, Ka-Miki had the canoe beyond the shoreward waves, with two dips of the paddle, they passed Kaiwi Point (at Keahuolu). Upon reaching Ahuloa Ka-Miki opened the *hōkeo pā hi aku* (bonito lure container) in which the supernatural lure Kaiakeakua was kept. Ka-Miki then commanded that Uhalalē and Uhalali paddle the canoe. Though these two paddled with all their might, the canoe only moved a little. Ka-Miki then chanted out to his shark *'aumakua Niho'eleki* — *mele 'aumakua, mele lawai'a*:

*I Tahiti ka pō e Niho'eleki
I hana ka pō e Niho'eleki
Lawalawa ka pō e Niho'eleki
Mākaukau ka wa'a la e Niho'eleki
O ke kā o ka wa'a 'ia e Niho'eleki
O nā hoe a Ka-Miki
O Uhalali a me Uhalalē
O ka pā hi aku o Kaiakeakua
Akua nā hana a ke Aku i kēia lā
He 'ilio nahumaka 'ai kepahepa
'Ai humuhumu, 'ai kukukū
Ku'i ka pihe, he pihe aku
O ke aku mua kau
'Ō'ili kāhi, pālua, pākolu

O ke aku ho'olili la
O ke aku ka'awili
O ke kumu o ke aku la*

Niho'eleki is from ancient Kahiki,
Niho'eleki is founded in antiquity
Niho'eleki is bound in antiquity
Niho'eleki has made the canoe ready
The canoe bailer is Niho'eleki's
The paddlers are Ka-Miki's
They are Uhalali and Uhalalē
The *aku* lure is Kaiakeakua
It is a gods work of securing the *aku* on this day
[Fish] Like a fattened dog to be chewed to pieces
Consumed voraciously – noisily
The din of voices spread, carried about
It is the first caught *aku*
Which appears once, twice, three times
greater than the rest
The *aku* which ripples across the ocean surface
The *aku* which twists in the water
It is the lead *aku*

¹⁴ When the Priest Pā'ao came to Hawai'i, brought with him the schools of *aku* and *'ōpelu* fish (cf. Kamakau; Kū 'Ōko'a –December 29, 1866). In this account, Kumukea-Kāhuli-Kalani was the name of lead *aku* that came to Hawai'i with Pā'ao.

o Kumukea-Kāhuli-Kalani
 Ke au kāhuli nei, kāhuli aku
 A ku ka imu puhi i ke ko'a

A wala'au ka manu he i'a o lalo
 E ala e ka ho'olili
 E ala e ke Kāhuli
 E ala e Kumukea-Kāhuli-Kalani
 O ka 'ōnohi o ko maka 'āina la
 Lele mai ho'okāhi
 I pili mai ka lua
 Kāmau mai ke kolu
 A pau kauna i ka wa ho'okāhi
 'Oia, a lele ka'u pā o Kaiakeakua

Kumukea-Kāhuli-Kalani
 The current which turns here and turns there
 It looks as if steam from the imu rises above
 the fishing station (ko'a)
 And the birds announce that the fish is below
 Arise one who stirs up the waters
 Arise o Kāhuli (the who brings change)
 Arise o Kumukea-Kāhuli-Kalani
 Cherished one of the land
 One leaps forth
 The second is close at hand
 The third follows
 All are in place at one time
 And so it is that my lure flies, it is Kaiakeakua

**Selected References
 to Places and Events:**

- Fishing ko'a of Kekaha
- Kaka'i
- Kanāhāhā
- Kahawai (Kahuwai)
- Kapapu
- Pāo'o (Pāo'o-a-ka-nuku-hale)
- Kaulana
- Ho'onā
- The supernatural ocean currents of Ho'onā
- Honokōhau
- How the ko'a of Kanāhāhā Came to be named
- Niho'eleki
- Kekaha-wai-'ole Ho'onā, Awalua, Ka'elehuluhulu, Kapu'uail'i
- Kuili (described as seen from the sea)

Narrative:

When Ka-Miki finished his chant, the *aku* began to strike at the canoe, and Ka-Miki told Uhalalē mā to take the first caught and place it in a gourd container. After this the *aku* rose like biting dogs, tearing at the water, and Ka-Miki moved like a swift wind. In no time the canoe was filled with more than 400 *aku*. An amazing thing is that though Pili's fishermen and all the fishermen of Kekaha were fishing at Kaka'i, Kanāhāhā (Hale'ohi'u), the entire ocean from the ko'a of Kapapu (Keāhole vicinity) to Kahawai (at Ka'ūpūlehu); none of them caught any fish at all.

The *aku* school was at the ko'a of Pāo'o, also known by the names Ka-nuku-hale and Pāo'o-a-Kanukuhale; the bonito lure fishing grounds which extended from Kaulana to Ho'onā, fronting Keāhole, which is the source of the [supernatural] currents Keaukā, Keaukāna'i and Keaumiki. These are the currents of that land where fish are cherished like the *lei hala* (pandanus lei) worn close to the breast, the fish cherished by Mākālei. Ka-Miki then turned the canoe and landed at Nā Hono 'Elua (the two bays) also called Nā Honokōhau (Honokōhau), Ka-Miki divided the fish between the family of the chiefess Paehala and people of those lands (October 11, 1917).

Ka-ala-pū'ali and Kanāhāhā, the twins of Mā'ihi challenged the rule of Pili in Kona. Having proven himself before Pili and his court, Ka-Miki was allowed to answer the challenge. Ka-Miki first fought Ke-ala-pū'ali and defeated him. Kanāhāhā then challenged Ka-Miki to a battle in the sea. The two contestants departed in Pili's canoes from Niumalu and when they reached the deep sea, they leapt into the ocean. Ka-Miki commanded that the canoes return to Niumalu once the fight began. Kanāhāhā then leapt to grab Ka-Miki, but Ka-Miki told Kanāhāhā, "You will not catch Ka-Miki, descendant of Ka-uluhe and Niho'eleki the shark god from Kahiki-kū. Instead Kanāhāhā, you will be bound on the coral below and become food for the crabs."

Calling upon the shark-god form, Niho'eleki, Ka-Miki grabbed Kanāhāhā and pulled him under, twisting and pushing him into the coral. When Kanāhāhā stopped moving, Ka-Miki rose to the surface and the two were carried by the current Ke-au-miki. Ka-Miki watched the shore of Kekaha-wai-'ole, they passed Ho'onā, Awalua, Ka'elehuluhulu, and the sands of Kapu'uail'i.

They moved so swiftly with the current that the hill Kuili appeared to fly like bird rising to the three mountains. The beauty of Kuili as seen from the ocean is described thus:

**Selected References
to Places and Events:**

- Kanāhāhā a deep sea *ko'a* in the vicinity of Hale'ohi'u
- Awalua one of the *mākāhā* of Pa'aiea fishpond

Narrative:

O Kuli e tele aku ana me he manu ala a o nā kuahiwi 'ekolu e oni mai ana iluna me he manu ala no Keōlewa – Kuli appears to fly, rising like a bird to the three mountains [Hualālai, Mauna loa, and Mauna kea], moving above in the heavens like a bird upon the *Keōlewa* clouds.

Ka-Miki then turned around and secured Kanāhāhā in the ocean, where he became a *ko'a* (deep sea fishing station) at Hale'ohi'u for 'ahi and aku lure fishermen of Kekaha-wai-'ole. Ka-Miki then swam to the shore of Awalua which served as a *mākāhā* (sluice gate) for the fish pond of Pa'aiea (November 29, 1917).

Ka Imu a Kāne (The Underground Oven of Kāne)

The region of Kekaha receives an average annual rainfall of 20 inches. As the ancient names Kekaha or Kekaha-wai-'ole imply, the land was one in which potable water resources were limited. Indeed, many of the traditions of the land that have been preserved through time, are those which speak of water—the lack of it, or the great care that was taken of it. In a series of articles written by J.W.H.I. Kihe, in which he shared the history of Kekaha, readers were told about a spring in the land of Ka'ūpūlehu, immediately north of Kūki'o. The account is included here because it provides us with a rich description of a native community and the coastal resources in the vicinity of the study area.

**Selected References
to Places and Events:**

- Kumukea-Kalani (chiefess of Ka'ūpūlehu)

A drought in Kekaha

- Kāne (brother of Kumukea and the god of water, healing, life agriculture and light)

- Pu'umau'u

- Kāne instructs the people to build and *imu* (underground oven)
- Kāne is placed in the *imu*, and when it is uncovered it is filled with food

Narrative:

In very ancient times, there were many people living upon these lands, in the various 'okana, *ahupua'a* and agricultural land divisions of Kekaha. The chiefess Kumukea-Kalani, her lesser chiefs and many people lived in the region now called Ka'ūpūlehu, and this chiefess was the sister of the god Kāne. During the rule of this chiefess there was an abundance of food grown upon the land. Then one time, for an unknown reason, a period of drought and famine fell upon the land and people. All of the resources from the mountain ridges to the shore were used, and the people were hungry.

All of the chiefess' prayers had no effect, and Kumukea-Kalani told her people to go and search out someplace else where they might live. "Do not think about me, for I am only one, and if I should die of hunger, that is how it will be. My attendants can conceal my bones." The people told the chiefess that they would not leave her alone, that it was best that they all stayed and died together. It came to pass that the people became so weak that they could not move, but simply slept each day. One day, Kumukea-Kalani rose and stood at the entrance of her compound. Glancing to the uplands, she saw a man upon the slopes. Calling to one of her attendants, she asked if he too saw a man descending the slopes, there by Pu'u-Mau'u. While they were talking, this man appeared at the chiefess' compound, and she realized that it was her elder brother Kāne [a god of water, healing, life agriculture and light].

Kāne inquired of Kumukea, "How is life upon this land?" Kumukea responded by telling him of the sore condition of her people and the land. Kāne then told Kumukea to have a great *imu* prepared and lit. Though the people could not understand the nature of this command, the *imu* was made ready. Kāne then stood at the edge of the *imu* and told the people to spread a covering of 'ākulikuli, *pōhuehue*, and *makaloa* upon the hot *imu*. Kāne then laid upon the *imu* and had the people close it. In a short time, the people saw Kāne rise up from the shore and approach the *imu*. He commanded that the *imu* be uncovered, and

**Selected References
to Places and Events:**

- Kāne rises out of the ocean and the spring "Ka-wai-a-Kāne" is formed; the spring is noted as a place of healing

- The surf of Ka'ūpūlehu is named Kumukea (also identified by informants in 1882 as the point between Ka'ūpūlehu and Kūki'o)

Narrative:

the people found all manner of foods; taros, sweet potatoes, yams, bread fruit, bananas, pigs, dogs, chickens and such, cooked within the *imu* (this is how a site came to be called *Ka-imu-a-Kāne*). The chiefess, her retainers, and people all ate and regained their health.

At the site where Kāne appeared on the shore, a cool fresh water spring also poured forth. To this day the spring is called Ka-wai-a-Kāne [The water of Kāne¹⁵]. Because this spring was made by Kāne, it was a place of healing. Sick people who bathed in this water were cured of their ailments¹⁶. From that time on Kumukea-Kalani and her people lived out their lives in health and abundance.

The surf of Ka'ūpūlehu is named Kumukea for the chiefess [this name is also commemorated as the point Kumukea, near the Ka'ūpūlehu-Kūki'o boundary; though the name is now written as Kumukehu]. And because of this event, in which the god Kāne was baked in an *imu*, the district came to be called *Ka-ūpūlehu-imu-akua* (God placed in an oven and cooked), which was later shortened to Ka'ūpūlehu (J.W.H.I. Kihe in *Ka Hōkū o Hawai'i*, April 2, 1914).

Ka Loko o-Paaiea (The fishpond of Pa'aiea)

The tradition of "*Ka-loko-o-Pa'aiea*" (The fishpond of Pa'aiea) was written by J.W.H.I. Kihe, and printed in *Ka Hōkū o Hawai'i* in 1914 and 1924. The narratives describe traditional life and practices in various *ahupua'a*, of the Kekaha region including Kaulana, Mahai'ula, Ka'ūpūlehu. The story specifically describes the ancient fishpond Pa'aiea, and provides details of the villages along the coast and in the uplands. It is important to note that the presence of major fishponds in this region is an indicator of Kekaha's substantial population and its importance in supporting the larger "royal" community around the area now identified as Kailua.

**Selected References
to Places and Events:**

- The fishponds and fish of Pa'aiea, Kiholo and Wainānālī'i
- Pa'aiea and the King's compounds described

- The fishpond guardian houses were situated at Ka'elehuluhulu and Ho'onā

- Pa'aiea
- Ka'elehuluhulu
- Wawaloli

Narrative:

Pa'aiea was a great fishpond, something like the ponds of Wainānālī'i and Kiholo, in ancient times. At that time the high chiefs lived on the land, and these ponds were filled with fat *awa*, *'anae*, *āhole*, and all kinds of fish that swam inside. It is this pond that was filled by the lava flows and turned into *pāhoehoe*, that is written of here. At that time, at Ho'onā. There was a *Konohiki* (overseer), Kapa'alani, who was in charge of the houses (*hale papa'a*) in which the valuables of the King [Kamehameha I] were kept. He was in charge of the King's food supplies, the fish, the *hālau* (long houses) in which the fishing canoes were kept, the fishing nets and all things. It was from there that the King's fishermen and the retainers were provisioned. The houses of the pond guardians and *Konohiki* were situated at Ka'elehuluhulu and Ho'onā.

In the correct and true story of this pond, we see that its boundaries extended from Ka'elehuluhulu on the north, and on the south, to the place called

¹⁵ Portions of this account are told in the oral history interviews with *kūpuna* Caroline Kiniha'a Keākealani-Perreira and Joseph Pu'ipu'i "Wainuke" Maka'ai.

¹⁶ In 1883, surveyor, J.S. Emerson collected another name for Wai-o-Kāne from the aged Kaua'i, a chief who lived at Kiholo; "Waiawili in Kaupulehu, the kahunas order their sick to bathe there" (Bishop Museum HEN I:473).

**Selected References
to Places and Events:**

• Pele visits the region of Kekaha; Meets with Kepa'alani the Overseer of Pa'aiea, at Ho'onā

• Pele departs from Ho'onā and Travels along the *kuapā* to Ka'elehuluhulu

• The people of Ka'elehuluhulu greet Pele and offer her food

• Pele tells the people how to protect Ka'elehuluhulu in the coming night – why Ka'elehuluhulu and Mahai'ula were protected from the lava flows

• Pele travels to upland Manuahi, Ka'upulehu and meets with Pā-Hinahina and Kolomu'o – the account of how Ka-'ulu-pūlehu came to be named.

Narrative:

Wawaloli¹⁷ (in the vicinity of 'O'oma). The pond was more than three miles long and one and a half miles wide, and today, within these boundaries, one can still see many water holes.

While traveling in the form of an old woman, Pele visited the Kekaha region of Kona, bedecked in garlands of the *ko'oko'olau* (*Bidens* spp.). Upon reaching Pa'aiea at Ho'onā, Pele inquired if she might perhaps have an *'ama'ama*, young *āholehole*, or a few *'ōpae* (shrimp) to take home with her. Kepa'alani, refused, "they are *kapu*, for the King." Pele then stood and walked along the *kuapā* (ocean side wall) of Pa'aiea till she reached Ka'elehuluhulu. There, some fishermen had returned from *aku* fishing, and were carrying their canoes up onto the shore.

Pele had now taken the form of a beautiful young woman, and she approached one of the houses at Ka'elehuluhulu, where she was greeted. Because it was seen that she was stranger to the place, one of the natives commented on this, and asked "Where is this journey that has brought you here, taking you?" Pele confirmed that she was indeed a visitor, and that she had come down to the place of the chief, to fetch some *pa'akai* (salt) with which to season their fish. Pele told them, "When I came down here, I went before the *Konohiki*, and was told that the fish, the *palu* (fish relish), the young mullet, the *āhole*, and the *'ōpae* were all *kapu* (restricted). They were only for the King. Thus, I have arrived here before you."

When the natives of the village heard Pele's story, the woman who dwelt in the house that Pele was at, told her "Here, the fish is cooked, it has been steamed (*hāku'i*), let's eat. Then when you've finished eating, you may continue your journey." Pele joined the *kama'āina* of the place, and when she dipped her finger in the bowl, she took and ate all the fish to see if the people would deny her the food. But when she did this, the *kama'āina* set another bowl before her, not refusing her.

Pele then stood up, ready to leave and she told the people, "This evening set up *lepa* (flags, boundary markers) at the corners of your land. One doesn't know if perhaps tonight, something good or bad might occur." Then Pele departed from the place, and she disappeared from sight. Startled, it was then that the people said among themselves, "This woman that visited our home must have been Pele-Honuamea (Pele of the red earth)."

When Pele departed from The shore of Ka'elehuluhulu she arrived at the uplands of Manuahi at Keone'eli, the place that is known today as Kepuhiapele. It is an *'a'ā* hill about 200 feet high, below the place where J.A. Maguire lives. At this place, there was a village (*kūlanakauhale*) of many people. At this quiet village, Pele saw two girls, who were *pūlehu 'ulu ana* (broiling breadfruit); these girls were Pāhinahina and Kolomu'o. All the other people of the village were away performing agricultural service for their chief. Pele approached the two girls and inquired about their tasks. When she asked who would receive the first offerings of this *'ulu*, Kolomu'o said her goddess La'i would receive the offering for she was a powerful deity. Kolomu'o did not acknowledge Pele. Pāhinahina replied that her goddess Pele-Honuamea would receive the first offering. Not knowing that the old woman was Pele, the girls continued responding to Pele's

¹⁷ Maguire's account of Pa'aiea (1929:14-17), indicates that the pond extended as far as Keāhole. This description fits in with the extent of the 1801 lava flows of Hualālai. It will be noted that the pond would have extended beyond Keāhole if canoes traveling on it were to pass inland of the point (see also Kamakau 1961:184-186).

**Selected References
to Places and Events:**

- The lava flows and eruption described
- Mauna Loa
- Hualālai regional sites
- Noted for *ua'u* bird catching
- Lava flow described
- Kolomu'o – marks an 'ōpelu fishermen's *ko'a*
- The pond of Pa'aiea is covered by the lava flows
- When sailing south, the ancient canoe fleets traveled in Pa'aiea fishpond
- Ka'elehuluhulu
- Ho'onā, Ua'u'ālohi, and Keāhole
- The Keāhole lighthouse marks where some of the chief's supply houses, and Kēpa'alani's residences were
- Pelekāne at Pu'ukala marks the location of Kamehameha's former residence.

Narratives:

comments about the power of their goddesses.

When their conversation was completed, Pele told Pāhinahina, "Our *'ulu* is cooked; let us eat." Pele then instructed Pāhinahina to mark the boundary between her and her family's dwellings and the dwelling of Kolomu'o with *lepa* (white *kapa* flags). She also told Pāhinahina not to fear the events that would occur that night.

Well, that night, a white flash was seen to travel from Mauna Loa to Hualālai, and in a short time a red glow was seen at Ka-iwi-o-Pele [cf. RM # 1263]. The people along the coast thought that it was the fire of the bird catchers at Hono-(*manu*)-'ua'u. The light dimmed and then appeared at (*pu'u*) Kīleo where the shiny hills of black *pāhoehoe* may be seen. Pele then went underground and appeared at Keone'eli where she caused deep fissures to open, and the *kahe-ā-wai* (fire rivers) to flow.

Some of the houses were destroyed, and Kolomu'o *mā* were consumed by the lava. As a result, the lava flats below Kepuhiapele and a shoreward 'ōpelu fishermen's *ko'a* (shrine) bear the name of Kolomu'o [cf. RM # 1278]. The area where Pāhinahina and her family lived was left untouched, and this open space bears the name of Pāhinahina to this day. It is because of this event that the lands of Manuahi came to be called Ka-'ulu-pūlehu (The Broiled Breadfruit), and this has been shortened to Ka'ūpūlehu...

...Now because Kēpa'alani was stingy with the fishes of the pond Pa'aiea, and refused to give any fish to Pele, the fishpond Pa'aiea and the houses of the King were all destroyed by the lava flow. In ancient times, the canoe fleets would enter the pond and travel from Ka'elehuluhulu to Ho'onā, at Ua'u'ālohi, and then return to the sea and go to Kailua and the other places of Kona. Those who traveled in this manner would sail gently across the pond pushed forward by the 'Eka wind, and thus avoid the strong currents which pushed out from the point of Keāhole

It was at Ho'onā that Kēpa'alani dwelt, that is where the houses in which the chiefs valuables (*hale papa'a*) were kept. It was also one the canoe landings of the place. Today, it is where the light house of America is situated. Pelekāne (in Pu'ukala) is where the houses of Kamehameha were located, near a stone mound that is partially covered by the *pāhoehoe* of Pele. If this fishpond had not been covered by the lava flows, it would surely be a thing of great wealth to the government today. (J.W.H.I. Kihe in *Ka Hōkū o Hawai'i*; compiled from the narratives written February 5-26, 1914 and May 1-15, 1924).

Ka Pu'u o 'Akahipu'u (The Hill of 'Akahipu'u)

In his series of traditions recorded, Kihe also relayed the account of how the *menehune* attempted to relocate the top of 'Akahipu'u from the uplands to the coast. Portions of 'Akahipu'u are situated in the lands of Awake'e, Makalawena and Mahai'ula, near where the *ahupua'a* join together. The events of the story are primarily situated in the uplands, but in opening the account, Kihe states:

This is a great hill, standing inland of the place of J.A. Maguire. The high point of this hill is called 'Akahipu'u. The ancient story of this hill is that the *menehune* desired to cut the top off and carry it, to set it atop the Kuili, which stands near the shore.

Kihe's story continues, describing how the supernatural rooster, Moa-nui-a-hea, the pet of Kāne, thwarted the menehune's efforts by crowing out. This causes the *menehune* to stop work as they believed sunrise was approaching. Eventually, the *menehune* killed the rooster, and baked him in the place now called "Ka-imu-moa," but Kāne brought him back to life with the *wai ola* (water of life) of Kāne. On their last try at relocating the hill, the *menehune* heard the rooster again, and gave up. (Kihe in *Ka Hōkū o Hawai'i* May 22, 1924; see also E. Maguire 1926, for further details)

Ka Lae o Keāhole (The Point of Keāhole)

Another of Kihe's short accounts published in this same time period, under the heading "*Na Hoonanea o ka Manawa*," was about the point known as Keāhole. Excerpts from this historical piece are included here because Kihe provides readers the names of various *ko'a* (fishing grounds) extending from Keāhole to Kohala. Some of these *ko'a* are referenced in various places of this study, but the texts here put them in order of location, south to north.

It is not a large place, this point, Keāhole, but here is the thing that makes it famous, the strength of its mixed, or twisting currents (*ka wili-au*) that flow with the passing current... And there in front of this point, in deep waves where this current swirls, on the side there is a stone, on which the waters rise up with strength as if filling an estuary (*muliwai*), and then flow out. It is on that side, that you will find the *ko'a* (fishing stations) for *aku*, *'ahi*, *kāhala*, *'ōpakapaka* and such. Among these *ko'a* are Pāo'o, 'Ōpae, Kahakai, Kapapu, Kanaha-ha, Kaluahine, Kanukuhale, Kaho'owaha, Honu, Muliwai (from where one peers upon the dirt of Hā'ena, Kohala) and Kaihuakalā, Maui... There are many other *ko'a*, but these that I've mentioned, are the famous *ko'a*. There are many deep *ko'a* all in a line, from the Point of Keāhole to the Point of Upolu and the *heiau* of Mo'okini in Kohala.

That stone which is situated in front of the Point of Keāhole, is called by its name Keāhole, and it is for this stone that the point is called Keāhole to this day... (Kihe in *Ka Hōkū o Hawai'i*; October 11-18, 1923)

Manini'ōwali

In this series of traditions, we find one other account that tells us of coastal sites and features within Kekaha Kai State Park. As the title would indicate, this account is about the lands of Manini'ōwali and Kūki'o, its neighbor to the north. The names of several of the people mentioned in the narrative are also the names of places on or near the coast of these lands. Kihe begins the account with the following description:

There is a stone on the beach dunes between Awake'e and Kūki'o 2. This is a stone in the form of a woman, she has a head, a nose, a mouth, breasts, and a large body laying in the sand to this day. It can be covered entirely with sand, and then when the high surfs come, the sand is dug away and the stone body is exposed. This stone is known by the name Manini'ōwali. (Kihe in *Ka Hōkū o Hawai'i*; November 1, 1923)

The following texts are a summary of Kihe's narratives, focusing on the main part of the tradition:

In ancient times, there were families living on these lands, and to them children were born. One family had a son, and he was given the name Uluweuweu. He was a good child, and he lived at Kukio with his parents and family. And so it was, there was another family, and to them, a daughter was born. She was very beautiful, and her name was Manini'ōwali. When these two children were young, the parents entered into a betrothal agreement (*ho'opalau*), so that when they grew up, they would marry (*ho'āo*).

When the children grew up, preparations were made for their wedding feast. Just as all things were made ready, Uluweuweu, became ill. Manini'ōwali learned of this and the ceremony was postponed till a later time. Hearing that the marriage had been postponed, he became well, and went back to his favorite pastimes, leaping into the ocean (*lele kawa*) and surfing (*he'ernalu*). Seeing that he was well, the families of Kūki'o made arrangements once again for the marriage, and once again, Uluweuweu became mysteriously ill. Because of this unusual illness, the family called a priest. His name was Kikaua. When Kikaua arrived at the house, Uluweuweu was sitting up speaking with the people that had gathered there. Kikaua then asked, "Why have you come and gotten?" She explained that her son had been ill, and they needed his help to discern the nature of the illness.

Kikaua told the parents that this was no real illness, but a result of the boy's love for another. He has been out in the night with a cherished garland (*ipo lei manu*), and has been ensnared in the nets of the bird catchers that are set in the mists... When Kikaua finished speaking, all those who had gathered together, began speaking among themselves, wondering who the woman could be. Well my companions in this pleasant passing of time, this royal 'ōhai blossom that adorns the breast (*pua lani uma a 'ōhai*) was the cherished daughter of Po'opo'omino^(m) and Ka'eleawa'a^(k), the *ali'i 'ai ahupua'a* (chiefs who controlled the wealth of the land) of Kūki'o. She was a beautiful chiefess, and unknown to anyone, she had been meeting with Uluweuweu. At the time that this became known, some of the members of Manini'ōwali's family were present. There were relatives of Moana, Manini'ōwali's father, and relatives of Kauiha, her mother, at this gathering. Some of them went to Manini'ōwali and told her that Uluweuweu's sickness had not been a real one, and that the *kahuna* had told them of his relationship with Kahawaliwali.

Hearing of what had happened, Manini'ōwali's mother cancelled the wedding arrangements. Hearing all of this, Manini'ōwali quickly became ill and almost died. Kikaua was called again, and he discerned that it was no real illness, but one of love... Following consultation with the parents of Maniniowali, it was decided that Kikaua should pray the youths to death. Praying to his gods Kamohoali'i and Pele, the girls and the boy were turned to stone.

Uluweuweu was turned into a stone that stands in the water to this day. The amazing thing about this stone is that where it stands, it is securely imbedded, but it can rock back and forth when struck. Though it moves, the stone cannot be taken from its place. Kahawaliwali was turned into a long stone about thirty feet long and of like height. The stone extends out into the sea in two sections, which are said to be the thighs of Kahawaliwali, and into which the water rushes. This stone can be seen to this day as well. Because Maniniowali understood what was happening, she ran to the beach and laid on the sand. It was there that she was turned to a stone which can still be seen today. When the tide comes in, she is covered with sand, and when it goes out, the sand is washed away.

One of the most unusual things about the ocean of this place is the movement of the *manini* (common reef surgeonfish) that are seen swimming across the bay. The *manini* twist and move as if on a rope, and roll about like big fish in the ocean. From afar, these *manini*, moving together can be mistaken for a shark. But when one moves closer, it is seen that they are *manini*, twisting and rolling very close together. The nights of Kū and the mornings of Lono and Maui are good times to see this mysterious practice of the *manini*. It is said that these fish, the *manini ali'i kākalaolua*, are the *manini* fish form of the girl Manini'ōwali, and that is why she was given her name. It is also the reason that the *manini* fish are seen twisting and

turning in the waters there. (Kihe in *Ka Hōkū o Hawai'i*; November 8 & 22, 1923)

“He Mo’olelo no Mākālei” (A Tradition of Mākālei)

The story of Mākālei describes how one of the most famous *ana wai* (water caves) of the Kekaha region came to be found, and provides readers with another legendary view of life in Ka’ūpūlehu Mahai’ula, Kaulana and the Kekaha Region. Submitted to *Ka Hōkū o Hawai'i* by J.W.H.I. Kihe in 1928, the story is set around c. 1200 A.D. (by association with ‘Olopana’s reign on O’ahu). This story was briefly summarized by Eliza Maguire (1929) where it covered a few pages of her publication, Kihe’s account actually ran in serial form for eight months of the paper’s publication. Through this legend, readers are offered a natives’ perspective of settlement-habitation, and practices associated with water catchment, agriculture, and fishing in the Kekaha region.

**Selected References
to Places and Events:**

- The birth and genealogy of Mākālei
- Keawehala

Narrative:

Ko’a-mokumoku-o-He’eia (Ko’a) was the father and Ka-ua-pō’ai-hala-o-Kahalu’u (Kaua) was the mother. Born to them were the children; two daughters [Ke-kai-ku’i-o-Keawehala and Ke-kai-ha’a-kūlou-o-Kahiki] and a son named Mākālei. The name of Mākālei was given by the command of his goddess-ancestress who was Hina-i-ka-malama-o-Kā’elo¹⁸ (Hina in the season of Kā’elo), who was a wife of the god Kū.

- Settlement at Ka’ulupūlehu

The fathers’ occupation was that of a head fisherman with the lead fisherman for the chief ‘Olopana. The lead fisherman’s name was Kualoa. When Kualoa died, Ko’a left Ko’olau [O’ahu] and traveled to Hawai’i with his family and all the those things by which his livelihood as a fisherman was made... After stopping at Moloka’i and Maui, the family reached Kekaha, and they landed at Hale’uki on the shore of Ka’ulupūlehu (Ka’ūpūlehu). Mākālei mā were greeted by Ke’awalena, a chief and skilled diviner of the Kekaha region.

- Kekaha residency patterns

Because Ko’a was an excellent fisherman and farmer, and because Ke’awalena sensed Mākālei’s supernatural qualities, Ke’awalena mā welcomed the new family and encouraged them to stay and live with them. In time, Ko’a saw that this land was a dry one, without quantities of food crops, though there was good fishing. Because he did not wish to burden the family of Ke’awalena, Ko’a asked that he be allowed to go to the uplands to care for some land and cultivate food so that everyone would have more to eat. Ke’awalena responded by saying that this is the trouble with this land, there is little water. When the sun is above the land in the *lā malo’o*-dry season the crops are dried out, and the people move from the uplands to live along the shore where water is available. . .

- Water catchment practices

Ko’a then asked how the people in the uplands got water. Ke’awalena told him that the water came only from the rains. When it rained the water ways [dry rivers], the small and large water gourds, the stone catchments made by placing stones together, are all filled with water. The *pao wai* or dugout pits are filled with water and these are the places where water is stored. Additionally, some people have *kaulana wai* (places where water rests) or *ana wai* (water caves) which they use when there is no other water. For those people who do not have *kaulana wai*, there is great tribulation, and they are the ones who return in

¹⁸ *Kā’elo* (cf. *’elo* - saturated) - a wet month in the Hawaiian calendar, January on Hawai’i; a season associated with short days when the sun is “below,” or at its’ southern extremity, and a time when a star of that name is seen to rise in the heavens.

**Selected References
To Places and Events:**

- Ka'ulupūlehu
- Kūki'o
- Makalawena
- Mahai'ula

Narrative:

the [dry] season to dwell on the shore. The water in the caves, is a water which *kulu wai* or drips from the rocks. Channels of banana stalks are set in place to direct the water into troughs of 'ōhi'a and wiliwili wood...

Though he heard these words, Ko'a was not discouraged, and he and Ke'awalena traveled to the uplands of Ka'ulupūlehu. In all this area, there was no *kihāpai* (garden area) or *mo'o 'āina* (arable strip of land) left uncultivated. The two then went to Kūki'o, and there also was no place left uncultivated, and it was the same at Makalawena. They then went to the hill of 'Akāhipu'u, the place where the house of Maguire now stands, called Hu'ehu'e Ranch. All the good lands were cultivated and there was only one place left open, this was at Mahai'ula, on the side of 'Akāhipu'u. This place had been left because of its rocky, uneven surface with depressions and rocky mounds. It was here that Ko'a told his companion, "this is a good land for cultivation."

Ke'awalena responded, "This is a rocky uneven land with its depressions and rocky mounds, there is no soil and none of the natives of the area would try to cultivate crops here." Ko'a said, "Though the land is as you described, it is here that I will grow taro, bananas, sugar canes, sweet potatoes, and 'awa (*Piper methysticum*), there will be no end to the growth of these plants. . ." (January 31, 1928).

The two companions then went to the shore of Ka'ulupūlehu to gather things in preparation for their return to the uplands of Mahai'ula. While the work was being done, the family would remain along the shore. When Ko'a returned to the uplands, he took his son Mākālei with him, for the child wished to see [the embodiments of] Ho'olale-a-ka-'ūkiu [another name for Mākālei's ancestress, 'E Hina-i-ka-malama-o-Kā'elo, pa'a 'ia a pa'a ka i'a a kāua' (Hail Hina in the season of Kā'elo, secure and hold tight to the fish of ours).

- Settlement and crop cultivation
in the dry uplands

The first task was to build their house and enclose it, then they built the *pao wai* (water catchment) for storing the waters which came from rains. The great task of the companion [Ke'awalena], was to go to the farmers and collect planting stock of the *pōhuli mai'a* (banana sprouts), the *lau 'uala* (sweet potato runners), the *pulapula 'awa* ('awa cuttings), seed sprouts of the *ipu 'awa'awa* (bitter gourd), and all manner of cultivated plants.

The local people teased Ke'awalena, and ridiculed the stranger [Ko'a] who would dwell upon this rocky land with its uneven surface, depressions, and rocky mounds. They said it would be a waste of time to try cultivating such a place. Ke'awalena responded by saying that you have one knowledge, and this man has another knowledge. It is like the fishermen who have ways different than yours.

- Water catchment and crop
cultivation

Ko'a took up residence and began farming the land; the companion [Ke'awalena] began setting out the *hue wai* (water gourds), the *haona wai* (water bowls), the 'olo (long gourd containers), and preparing the *pao wai* (water catchments). The rains then returned and filled the gourds with water. Ko'a then planted the *kalo* (taro), sweet potatoes, bananas, sugar canes, and bitter gourds etc. And as these plants began to grow, they grew more luxuriously than any plants which had been seen before. The rains also continued to fall filling all of the containers. Wild grasses began to grow around the *mākālua kalo* (taro planting holes), and around all the things which had been planted. This grass was used as the *kipulu* (mulch) for all the other plants, and things grew even better; there was more cultivated food than had ever been available.

**Selected References
To Places and Events:**

- Seasons and agricultural practices

Narrative:

As the seasons changed from the days of the moon (winter) to the days of the sun (summer), the sun dried all the surface growth, but the taro, sweet potatoes, and different plants continued to grow because there was water below the surface in the rocks of the *kihāpai* (cultivated patches). When the sweet potatoes matured and were ready for harvest, the family returned to the uplands for ten days. They baked a pig and offered chants and prayers in *kahukahu* ceremonies of the planter. When the taro, sweet potatoes, and foods were all prepared, Ko'a called to all who passed by to come and eat and to even take food home.

Now the people who had ridiculed Ko'a, withdrew and ceased talking, they did not come forward. Their words and actions had been made as nothing, by the accomplishments of Ko'a. But the work of the farmer continues even as the sun begins its descent, there is no time to rest except for in the night. The taro sent out shoots, the bananas ripened, the sugar canes laid upon the ground [bent over with their weight], and the 'awa was plentiful. Throughout this time, Mākālei was his father's constant companion in cultivating the land.

- The water cave of Mākālei is discovered

One day the child Mākālei went to relieve himself along side a small depression in the field and while excreting, he felt a breeze rising to him from below. Greatly startled, he carefully looked down and saw the opening of a dark hole from which the wind was blowing. Mākālei stood up and went to call his father and told him about the wind blowing from under the ground, thinking that it was a wind cave which extended from the uplands. The father went to look at the opening and saw that the wind was indeed coming out of the cave. This is the place that came to be called *ke ana wai o Mākālei* (the water cave of Mākālei), named for the one that this story is about.

On another day, after having completed his work, Ko'a went to the place of this wind cave. After looking at the opening, he began to remove rocks from the cave mouth and made a round opening large enough for a man to enter. Ko'a then went to his house and took a *kukui* torch and returned to the cave. Upon entering the cave, he saw that it was a very large cavern with a high ceiling and wide expanse, and water was dripping down from the ceiling. When Ko'a returned to his house, he did not tell his wife or daughters about the cave, he kept his actions hidden and made as if the site of the cave opening was a place for refuse and relieving one's self (February 7, 1928).

- Care for, and location of the water cave of Mākālei

So now we see my reading companions that it was the thought of Ko'a to keep this place a secret, known only to Mākālei and himself. This was a *kaulana wai huna* (hidden resting [gathering] place of water), and indeed, no other person ever knew of the existence of the cave. The water cave remained hidden from everyone except Ko'a and his son Mākālei. Even after Mākālei traveled to *Kaua'i-nui-moku-lehua-pane'e-lua-i-ke-kai* (Kaua'i of the great *lehua* forests which appear to travel by twos to the ocean), and when Ko'a died, no one knew about the cave. This water cave remained a secret until Mākālei was near death, then he told his son *Ka-lei-a-Pā'oa-o-Mākālei* (Kalei) about the water cave, before Kalei made a journey from Kaua'i to the island of Hawai'i to visit his relatives. It was Mākālei's command that Kalei reveal the existence of this water cave to his surviving family and their descendants. It was in this same cave that Mr. J.A. Maguire, deceased, built a water tank, and laid pipes to his house from within the cave. A wind mill was then used to pump the water from the cave; perhaps he [Maguire] was one of the last descendants of Mākālei.

**Selected References
to Places and Events:**

• Water catchment in the
Water caves of Kekaha

• Pahulu
• Moanuiāhea

• Ko'a and Ke'awalena teach
Mākālei different techniques of
fishing.

• Ka'elehuluhulu
• Mahai'ula
• Ōhiki
• Hainoa

• Mākālei is trained in various
forms of fighting skills

Kekaha called Kekaha-wai-'ole

Saying used to describe residency
patterns in Kekaha

Ka'elehuluhulu

Narrative:

After realizing the nature of the cave, Ko'a then set about at the large task of carving canoes of *ōhi'a* (*Metrosideros polymorpha*), and *wiliwili* (*Erythrina sandwicensis*), which he did at night without being observed. He then took the *wa'a wai* (water canoes, or troughs) and placed them in the cave till there was no room for anything else. And when it was once again the season of the sun's return to this land, the sun drank all of the water which had been stored from the rains. The sun moved over head and the people once again relied on the *kaulana wai*. For those people who did not have water the sun offered no compassion, and the people moved again to the shore where water was not disputed over. But for them [the family of Ko'a] there was no problem in obtaining water. The *ōhi'a* and *wiliwili* troughs were filled with water which rippled and overflowed upon the *pili* grass.

As Mākālei grew, he matured into a handsome young man and he enjoyed all the favorite pastimes of youths at the time. But, farming was Mākālei's favorite pastime, and as his father did, so did Mākālei. Their produce went to those who lived down by the place of the canoe fleets, to the uplands of Pahulu, and to the community at Moa-nui-a-hea.

One day Ko'a told Mākālei, "It is now time for us [Ko'a and Ke'awalena] to instruct you the skills of the fishermen. That way you will have no need to wait on the skills of others to provide you with food to eat, and there will be no shame in waiting on others to supply you. You will have your selection of that which you wish to eat." When the day arrived that Mākālei was going to begin learning the skills of the fishermen, they descended to the shore where he was taught about *hi* (lure trolling) for *aku*, *'ahi*, *kāhala*, *ulua*, and fishing for *ō'uku'uku*, *ōpakapaka*, and *kalekale*, etc. The father also taught his son the techniques of fishing with all manner of nets, and Mākālei embraced the knowledge of all the practices of the fishermen, and the cherished knowledge of the ancestors and parent generation.

Now the daughters of Ko'a and Kaua took husbands who were also fishermen. Their husbands were from the shores of Ka'elehuluhulu and Mahai'ula, and the husbands names were Ōhiki and Hainoa. The daughters went to live with their husbands, while the parents lived with their one remaining child, Mākālei. Over the next ten years, Mākālei learned all manner of knowledge pertaining to the cultivation of crops and fishing. Mākālei also learned the practices of fighting in the techniques of *lua*, *ha'iha'i*, and *ku'iku'i* etc. [martial arts, bone breaking, and boxing], for these were greatly cherished by our *kūpuna* (ancestors) of those days, and this is how people of the Hawaiian race strengthened their bodies in those days.

When the days of the *aku* fishing season arrived in Kekaha which is called Kekaha-wai-'ole (The waterless place) by its' native children, it is said —*Ola aku la ka 'āina kaha, ua pua ka lehua i ke kai* (The natives of Kekaha have life when the *lehua* blossoms are upon the sea). It was in these days that the best trained fishermen of Kekaha-wai-'ole, exhibited their knowledge of *hi-aku* fishing, this famous task of Kekaha and all Kona.

The husbands of Ko'a's daughters were the head fishermen of Ka'elehuluhulu, and when they heard that the fish were running, they went and prepared to fill their canoes with *aku*. Hearing the news that the canoe fleet was being made ready, Mākālei called to his father, asking that he be allowed to go down to the shore of Ka'elehuluhulu to get some *aku* from his sisters.

**Selected References
to Places and Events:**

- Fishing from Ka'elehuluhulu
- Fishing customs described

- Mākālei ridiculed by 'Ōhiki

- Canoes laded at Ka'elehuluhulu

Narrative:

When Mākālei went to the shore, his sisters saw him, and he was carrying cooked taro and lengths of sugar cane longer than the span of a man's arm. Some taro and sugar cane was given to each sister. Mākālei then said, "O my elder sisters, I have come down here because we have heard that the sea is filled with *aku*, and we desire to eat some *aku*."

The sisters responded, "Wait until your brother-in-laws return with *aku*, for they have never missed in catching the fish; but, perhaps there will be none to ask for." Mākālei responded, 'Perhaps this is not a day for the fish to run. Though there have been many *aku*, this is a day in which the fish may be sleeping [in the depths] for this is the time of *Kulu*, when it is said – '*Kulu ka pō, o Welehu ka malamā, he lā i'a 'ole kēia*' (*Kulu* is the night, *Welehu* is the month, this is a day of no fish).' The sister answered saying, 'Your brother-in-laws will not come back empty handed. How indeed shall the two foremost fishermen of the *kaha* (shore) return empty handed, when fishing is what they are famed for?'

Mākālei then said, 'Look, the canoe fleet is returning, and the sun travels peering upon *ka paepae kapu o ka hale o Uli* (the sacred platform of the house of Uli; i.e. the sun sits atop of the head, it is midday); there are not even ten canoes, and the people return. The canoe fleet does not return when the sun is still rising above. Indeed – *o ka hele la a kūpono ka la i ka lolo, a'ohē no he 'ike 'ia aku o ka wa'a* (when the sun rises and sits directly upon the brain [is directly overhead] the canoes are usually nowhere to be seen).' Mākālei asked, 'Do you see the canoes returning? Perhaps what you have said [about your husbands fishing skills] is not true.'

Mākālei's sisters disagreed with his accounting of the returning canoes, and questioned whether he had an understanding of practices associated with fishing. Mākālei then reminded his sisters that their father had been the lead fisherman under Kualoa in service of the chief 'Olopana at Ko'olau; 'Only after the death of Kualoa did we leave [O'ahu] and come to dwell here at Kona of the dark green mountain which stands in the calm—*Kona mauna hāuliuli kū pōlua i ka pōhu*.'

Upon finishing his comments, the sisters agreed that perhaps this brother of theirs was correct, "It may be that our father has taught our brother all manner of fishing skills.' As the sun began to move away, the canoe fleet was seen to enter the landing. Mākālei then quickly went down and stood at the bow of the canoe of his brother-in-law 'Ōhiki, who was one of the lead fishermen of Ka'elehuluhulu (February 14, 1928). Seeing that Mākālei held fast to the canoe bow, 'Ōhiki spoke harshly, 'What is it that this child of the dangling genitals wants [a derogatory term used to describe a youngster who doesn't even wear a *malō*], that he should hold so fast to the bow of the canoe with one eye [desire]; you are not ours you little lazy child.'

Though he heard the spiteful words of his brother-in-law, Mākālei still took up the *lona wiliwili* (*wiliwili* wood canoe rollers) and placed it below the canoe, so that the canoe could be taken up the shore. Mākālei then departed and went back to his sister home, and she asked, 'Are there many *aku*?' Mākālei responded that there were only a few. The sister then asked, 'Were there no fish for the one who helped to take the canoe up on the shore?' Mākālei responded, 'No, I told you this was the day of *Kulu* when the fish remained in the depths. . .'

**Selected References
To Places and Events:**

Narrative:

Now when the other brother-in-law, Hainoa landed his canoe, Mākālei went quickly to the shore and secured the *lona* and carried the canoe up to the canoe stalls. Hainoa called to Mākālei, chose three fish for you, but Mākālei took up only one fish and Hainoa encouraged Mākālei to take more, but Mākālei declined saying this one was enough. Hainoa then went and greeted Mākālei with a kiss, and inquired about his parents who were living in the uplands. . .

• 'Akahipu'u

Upon returning to the uplands a little below the hill of 'Akahipu'u, Kaua inquired of Mākālei how his sisters were. Mākālei also described the circumstances of how he came to have the one large *aku*. Now when this fish had been consumed, Mākālei returned to the coast, and like before, he took taro and sugar cane with him. When he arrived before his sisters, they inquired how their parents were and asked if there was water to be had in the uplands. The sisters thought that perhaps there would be no water for their parents and Mākālei in the uplands. But Mākālei told them, "We have no problem with the water, it is fish that we lack." The sisters responded that they only had dried *aku* in the storage houses.

• Fishing customs

Mākālei then told his sisters, "The canoe fleet will returning, but there will be no *aku*, for this is the day of *Kāloa-kulua*, a day when there is much traveling done to follow the swift moving *aku*, indeed, the canoes have traveled so far that the shoulders of the paddlers are weary with their task. Of days like this it is said, *Ke pi o ke aku, a'ohe po'e o ka pā* (The *aku* are stingy, the lure attracts no people [fish]). This is a day when the *aku* take off, they do not stay at the *ko'a* (fishing stations) for the sword-fish of the depths chases after them" (February 21, 1928).

• Ka'elehuluhulu
• Mahai'ula
• Makalawena
• Ka'ūpūlehu

When it was afternoon, the canoe fleets returned to Ka'elehuluhulu, Mahai'ula, Makalawena, Ka'ūpūlehu and beyond. Of all the canoes, only the canoe of Hainoa, the husband of Mākālei's sister Ke-kai-ku'i-o-Keawehala (The striking [rough] seas of Keawehala) had any fish. Taking up his five fish, Hainoa went up to his home where he found that many people had gathered together. These people were the natives from the surrounding lands, but foremost among them was the stranger [Mākālei], who had brought and prepared large quantities of taro, sweet potatoes, sugar cane, and bananas, for them to eat, and 'awa for them to drink. Hainoa then gave them four of the *aku*. In this way, Hainoa and Mākālei *mā* became benefactors of those same people who had ridiculed Ko'a-mokumoku-o-He'eia for selecting the land on which he was cultivating these great quantities of food.

• Practices of dryland cultivation
• Agriculturists valued in society

There were great quantities of food cultivated by Ko'a and Mākālei, there was no end to the growth and nothing lacked for water. The plants grew as if they were in a dirt field and they grew wildly. In the *mākālua* (dug out mulched planting holes) the grasses were used as the *kipulu* (mulch), and the fields looked like the *lo'i* (wet pond fields) of the watered lands. Great were the cultivating skills of the father and his son, indeed it is said—*ola nā iwi o nā mākuā* [the bones of the parents (ancestors) have life; said in praise of an accomplished descendant]—through the skills of Mākālei. The sister were also lucky for the skills of their brother.

• 'Ōhiki

The third time that Mākālei went down to the shore it was afternoon, and he went to the place where his brother-in-law 'Ōhiki was landing his canoe; upon the land of the gods (ghosts [perhaps a reference to events with Pahulu at Makalawena]). Mākālei swiftly took the *lona* (canoe rollers) and set the canoe in place. 'Ōhiki then said, "What is it that you have brought down here to satisfy

**Selected References
To Places and Events:**

Keawehala

- Fishing fleets kept inshore during stormy season

- Ka'elehuluhulu

- Because of the difficulty of life in Kekaha, the land was also known as "Kaha-ka-weka"

- Kekaha also known as "kaha 'ai 'ole" (place without vegetable foods).

Narrative:

your desire for fish? Perhaps some *pa'i 'ai* (bundles of prepared *poi*). Mākālei did not respond for he objected to the nature of his brother-in-law. The canoe of Hainoa, husband of Ke-kai-ku'i-o-Keawehala then landed and Mākālei then took up the canoe and set it at the canoe sheds. Mākālei then went to the house of Hainoa mā, and like before, he had brought prepared taro and sugar cane etc., for his sisters. After Hainoa gave Mākālei fish, he then returned to his home.

Now when the time of the storms of the Kaha arrived, the winds rose up and the canoes could no longer put out to sea, and the coral was tossed upon the shore by the waves. The ocean was whipped up and the *Ho'olua* wind raged, turning towards the uplands. 'Ōhiki spoke to his wife Ke-kai-ha'a-kūlou-o-Kahiki (Kekai), 'Perhaps you can go to the uplands and ask for some food for us that we may live.' Kekai went to the uplands and upon arriving at her mother's house, she greeted one another with chants. When the greetings were offered, Kua then asked, 'Why is it that you travel alone, where is your husband?' Kekai answered, 'I have come to ask for some food for us, we have nothing and we are troubled.' Kua told her daughter that she would go speak to her father and young brother [Ko'a and Mākālei] who were working in the plantation and bring back vegetables to prepare food for her. Upon reaching the plantation, Mākālei inquired of his mother, "Who has arrived at our home that you have greeted with a chant?" Kua responded, "It is your elder sister Kekai, and she is asking for some food to relieve her family of its' trouble" (February 28, 1928).

Mākālei said, 'We will give no food to my sister, tell her there is nothing for her but the *kōlīna* (sweet potato vine runners).' That evening when Kekai had returned to the coast at Ka'elehuluhulu, Mākālei explained to his parents about the way 'Ōhiki had shamed, ridiculed, and treated him in front of the paddlers and fishermen; and this was why he denied his sister's request. Mākālei did this to teach 'Ōhiki a lesson. Mākālei then said, 'I have only one brother-in-law, Hainoa, he is a good man and for him there will be all the taro, sweet potatoes, sugar cane, bananas, and 'awa that he would like.'

Many long days passed and the storms continued striking at Kekaha which is also called *Kaha-ka-weka* [The hard (stingy) place], for this is a *kaha 'ai 'ole* (place without vegetable foods) and a *kaha wai 'ole* (waterless place). One day both of Mākālei's sister traveled to the uplands to ask for food for their families. Mākālei inquired, 'And where are your strong husbands? They must come up to get the food for there is so much, that you two could only take a small portion.'

Kua prepared the 'uala greens for her daughters, who ate and then returned to the shore with some of the greens for their husbands. Keawehala told her husband Hainoa that he would need to go and get the sugar cane, bananas, and such for it would require great strength to carry all of the items. Several days passed, and as was the custom of the people along the shore, they ate only fish, for this was a place without vegetable foods (*kaha 'ai 'ole*).

The two brother-in-laws then went to the uplands, the house of their parent-in-laws and Mākālei. When Mākālei saw 'Ōhiki and Hainoa, he knew that they were coming to ask for vegetable foods. Mākālei told his mother and father to let him do the speaking and that it would be him who would give them their food. The parents agreed to this and Mākālei then went to the plantation. Upon arriving at the house of his in-laws, Hainoa asked for Mākālei. Hainoa was told, "He is there in the field, throughout the whole day he cultivates the crops until the setting of the sun.

**Selected References
To Places and Events;**

- Agricultural resources described

- How Ahu-a-Lūpua came to be named

- Mahai'ula
- Ka'elehuluhulu

Narrative:

Some people perhaps work only half the day, but Mākālei works until dark covers the land, then he is done. All that is grown here is cultivated by your young brother-in-law; the taro, sweet potatoes, sugar cane, bananas, and the 'awa are all grown by him. Indeed your small brother is the foremost farmer – *hewa i ka wai ka 'ai* [growth of the vegetables foods is as great as a body of water (vast or multitudinous)] – *Moe ke kō a ala mai palakū ka mai'a iluna, ke kalo hele maka'ole a 'ulu ka limu, o ka 'uala kōhu a'a hele a iluna ka 'uala, o ka 'awa ua hele a hua iluna* – The sugar cane lays upon the ground with its' weight, the bananas are perfectly ripened upon the trees, the taro is without protuberances [unblemished] with mosses growing around it, The sweet potato rootlets resemble the sweet potatoes above, and the 'awa bulges above."

Kaua then said, 'I will go and fetch Mākālei.' When Kaua reached her son, Mākālei already had two large nets ready, one was filled with vegetables; the net for the disrespectful 'Ōhiki was a large *po'a'aha* (*wauke* woven) net which was filled with taro, sweet potatoes, banana fruit stalks, sugar canes, and 'awa roots. While Hainoa's net was left for him to fill as he desired, and by what he would be able to carry. Mākālei did this so that 'Ōhiki would see that he was more than just a little boy. 'Ōhiki and Hainoa were then led up to Mākālei, and 'Ōhiki was shown his filled net. Mākālei told 'Ōhiki, 'Here is the net filled with all manner of foods grown by me. if you can not carry this on your own, you will never get food again from Mākālei who you mistakenly compared to a little child' (March 6, 1928).

'Ōhiki then remembered all the mean things he had spoken to this child whom he had not known was his brother-in-law. 'Ōhiki took the net and departed with great difficulty for he could not get a good grasp upon the net and it was exceedingly heavy. Mākālei then went to Hainoa and explained that he could fill his net however he would like so that he could carry it home. Hainoa went to the *waena* (cultivated fields) and saw the great extent of all that was grown there, and he then filled the net as he wanted.

When Hainoa departed from the uplands, in a short time he reached the *kula* (flat lands) and came upon 'Ōhiki at the place called Ahu-a-Lūpua. 'Ōhiki was laying on the ground with his face up, exhausted because of the great weight of his net. Hainoa then spoke to 'Ōhiki suggesting that he leave the large portion of the food where it was so that the people of the coast could come and get what they had need of. 'Ōhiki agreed and left most of the food and then continued down to the shore where he told the people to go and get the food divide it evenly between the households.

The place where 'Ōhiki left the food is one of the famed places of this land. It is a cliff area from which one can look out to the shore of Mahai'ula and Ka'elehuluhulu. A stone mound was build along the trail there for the chiefess Lūpua and so the site came to be called Ahu-a-Lūpua. Now because so many people went gather up the foods which 'Ōhiki had left behind, the fame of the cultivated crops of Mākālei and Ko'a spread throughout the area. Because 'Ōhiki had promised that he would not go to the uplands and ask for food if he couldn't take the net Mākālei had given him, he remained on the shore; only his wife went to get vegetable foods. As time passed Mākālei's extraordinary nature became known and his body matured. When the calm returned to this place, it was once again the time for fishing, and as was their custom, the fishermen returned to their fishing practices.

**Selected References
To Places and Events:**

• Aku fishing customs

Kolomikimiki (a sacred aku lure)

• Ceremonial observances

• Keawehala

• (fishing from Kaulana-
Mahai'ula)

• Aku fishing customs

Narrative:

One day Mākālei told his father, 'I am going to the shore to go fishing, that I may catch some *aku* for us.' Ko'a asked, 'How will you get out to the ocean, for we have no canoe, there are no *kāohi* (paddlers who hold the canoe in place while fishing), how indeed shall you obtain these cherished fish?' Ko'a then went and fetched the gourd in which he kept the mother of pearl fishing lure called Kolomikimiki. This lure was variegated, reflecting various colors and its' ridge had the appearance of a red tinged *'oama* fish. Ko'a then told Mākālei, 'Here is the fishhook for you to use tomorrow, now you only need your canoe and *kāohi*. The name of this lure is Kolomikimiki, and it is your inheritance from your ancestress *Hina-i-ka-malama-o-Kā'elo* who dwells with her daughters He'eia-Kea and He'eia-Uli.'

When Ko'a finished speaking, Mākālei made ready to depart for the shore. Ko'a then told his son, "When you fish, take the very first *aku* you catch and set it aside. Then, when you return to the uplands, this *aku* will be used for the *kahukahu* (prayer offerings) to *Kū* and your ancestress *Hina*, then it will be freed to the *'aumākua lawai'a* (fishermen's guardian gods) and all things will be good."

Mākālei then descended to the shore where he met with his sister. He inquired of Keawehala if he could have a canoe to take fishing. Keawehala said, "Here is the canoe, but there is one problem, there are no paddlers. How will you get to the fishing site for all the men are gone and only children and women remain?" Mākālei indicated that there was no problem, "Here is the canoe, and it is up to me to find the *kāohi*." Mākālei then went to visit some of the homes in the area, and because of his farming skills and generosity, he was greatly liked and welcomed. Mākālei then met with some youths who were of similar stature as himself and asked if any of them new how to paddle a canoe. Some of the you said that they knew how to paddle and asked him what it was that he desired. Mākālei responded by saying, 'Let us go *lawai'a hi aku* (*aku* lure fishing) tomorrow.' The youths asked, 'Who will be our fisherman?' To which Mākālei answered that he would be the fisherman. Mākālei and his companions then went to the canoe long-house of his brother-in-law Hainoa (March 13, 1928).

Mākālei *mā* took the canoe, the mast the sail, the bamboo line booms, the outriggers, the bailers, and the *kāohi* seats, and then the youths practiced as their parents had taught them. When it was evening, Mākālei had everyone sleep in the house of Hainoa, and before sleeping he told them, 'I have this rule for you to observe; when we reach the canoe launching site if one of you have forgotten something at the house, do not turn around to get it for if you do there will be no luck. So I tell you this now that you will not forget it.'

With the rising of the star *Kau'ōpae* (Sirius), Mākālei awakened his *kāohi*; their names were Kiko'o, Pu'ipu'i, Po'o, and Kapahi. They then carried the canoe to the water and Mākālei called to the *kāohi*, telling them to take their seats. Kiko'o was at the forward seat, Pu'ipu'i was at the mast stand seat, Po'o was at the deepest section of the canoe, and Kapahi was in the *kāohi* seat at the end of the canoe. Thus seated, were the paddlers of Mākālei the descendant of *Hina-i-ka-malama-o-Kā'elo*. Mākālei then leapt into the canoe and called to his paddlers to paddle, and when they reached the *ko'a* it was still completely dark. The *aku* were rustling at the waters' surface and Mākālei took out the lure Kolomikimiki and began taking up the fish till the canoe was filled. As they turned around to return to the shore, Mākālei *mā* saw the canoe fleet coming towards them for its day of fishing.

**Selected References
to Places and Events:**

• Fishing customs of Kekaha

Narrative:

When the youths reached the shore, Mākālei took the very first *aku* which had been caught and told his *kāohi*, "You give fish to whom ever you desire, and after that if there are still *aku* remaining give them to the pigs and dogs. Do not be concerned about me, this one fish is enough, and tomorrow we will go get more *aku* for us. Clean our canoe and place it at the long-house, I am going to the uplands, and tomorrow in the early morning I will return. Do not oversleep and remember my rule." Mākālei then turned and went to the uplands with his hook container and the one fish.

Mākālei reached a cave where he placed the gourd container and he then went to his house where he offered the *kahukahu* ceremony with his father dedicating the fish to the '*aumākua lawai'a*' as was the custom of ancient fishermen. Ko'a then asked Mākālei, 'How was the lure?' Mākālei responded, "This is not just a lure, it is something which is cherished by the *aku*. With just one pass, the canoe was filled and we returned home. I had the *kāohi* give the *aku* to those whom they desired, and to those who had no fish, and told them that if there were still *aku* left that they should be given to the pigs and dogs." Ko'a approved of Mākālei's distribution of the fish and the dedication of the first caught *aku*, and he told his son, "Tomorrow the canoe will be overflowing with fish."

• Fisherman's prayer chant

In the early morning, Mākālei arrived at the shore, he called his *kāohi* into their positions as before, and boarded the canoe himself and they were off to the ko'a. The *aku* were swimming all around and Mākālei had his *kāohi* turn the canoe. Then this expert fisherman of Kekaha-wai-'ole called out in a chant:

*E Hina-i-ka-malama-o-Kā'elo
Ku'u kupuna wahine kino pa'e'e*

Hail Hina of the season of Kā'elo
My ancestress of the supernatural
body forms

*Ho'oūlu mai ka i'a
O ke aku ali'i, aku kahāhā,
aku oloolo i ka'elewa'a*

Cause the fish to increase
The chief *aku*, the astonishing *aku*,
the *aku* which overflow from the
canoe hull

O ke aku wiliwiliau i ke kai kāhala

The *aku* which stir up the ocean of the
amberjack,

Kai 'ele, kai uli, kai pōpolohua Kāne

The dark ocean, the green blue ocean
the purplish-blue ocean of Kāne

*I mae i ke ko'a, hua mai a lana iluna
Wehe 'ia nā puka o ka hale o ka i'a*

Let the fish rise off the ko'a
Open the doors of the house [station]
of the fish

*Mai muli i Kanukuhale
A ho'e[a] imua o Pāo'o
I ka wiliwilia o Keāhole
I Ho'onā i ka hale o ka i'a i noho ai*

[Which] begins at Kanukuhale
And reaches before Pāo'o
There at the currents of Keāhole
At Ho'onā the house at which the fish dwell

**Selected References
To Places and Events:**

• Fishing at the ko'a of
Kanukuhale

Narrative:

Upon completing his chant, the *aku* began striking from the beginning of Kanukuhale until they reached the front of Pāo'o. The fish rose like smoke from a burning *imu*, they were like gnashing dogs. Mākālei then had Po'o and Kapahi turn the canoe around to return to the shore (March 20, 1928). Upon their turning and going back the *aku* also ceased striking. When they landed on the shore, the majority of the *aku* were given to the *kāohi*, while from his portion, Mākālei gave *aku* to all the people dwelling in the houses thereabouts, and he

**Selected References
to Places and Events:**

• Fishing customs of Kekaha

• Saying describes locating
of fishing grounds

• Prayers offered to fishing deity

• Ka'elehuluhulu

• Division of catch

Narratives:

also gave *aku* to his elder sister Ka-kai-ku'i-o-Keawehala. Mākālei's fame as an intelligent *aku* fisherman and his exceptional strength as a farmer was spread from the uplands to the shores, and there was no other like him.

As he prepared to go to the uplands, Mākālei took one *aku* and he told his *kāohi* to clean their canoe and not to be careless. This command was fulfilled by the *kāohi*, for great indeed was their joy because of the kind nature of Mākālei for he had given them the majority of the fish and taken only a little portion for himself. This was not the way of the other fishermen of the places (villages) in which they lived. Usually, the portion which was given to the canoe helpers was of different fish such as the 'ōpelu. Mākālei's goodness was the greatest, and the helpers said among themselves 'We are indeed lucky that our fisherman's goodness of heart and thought is so great.' Thus the young *kāohi* spoke among themselves and with their parents. From that time on, they were always alert, watching for the return of Mākālei.

When the *kāohi* saw that Mākālei was returning, they made the canoe ready for him, setting it in the water, placing their paddles and all the things required for fishing within it. Upon going to the place where they had fished before, the murmuring of the *aku* was not heard, indeed there was no sign of the *aku*, all things were calm from side to side. Mākālei then told his *kāohi* 'Look to the *manu o muli* (bow of the canoe), there before the bow are the birds circling above the ocean's surface. The reason is that the *aku* are there, there are great *aku* and our canoe will overflow again today. You can surely know that when you see the birds circling above, there will be the fish.' And as Mākālei had explained, when they reached the place where the birds were circling, the birds were seen splashing into the water (feeding). This is the reason why the ancient people said, "Wālā'au ka manu, he i'a ko lalo—When the birds shout out, there are fish below."

Mākālei then turned backwards and forwards [looking at his fishermen], and he called out to Kapahi:

*E Kapahi ke kāohi i ka muku i ka 'iako hope o ka wa'a o Koianana, lawe ka wa'a i ka māpuna i ke ehū kai hu'akea mawaho loa o ka lana i hale o ke aku mai ho'okomo 'oe i ka wa'a o kākou ka hālukuluku, i ka piko o Wākea ka i'a alaka'i i kaulana o ke ko'a. — O Kapahi, who sits at the outrigger boom seat to hold the canoe Koianana in place, take the canoe to the upwelling of the ocean mist, spreading to the outer edge of the house of the *aku*, do not let our canoe enter into the rushing *aku* at the summit of Wākea the foremost fishing station.*

Finishing these words, Mākālei then turned and called out to his ancestress, to Hina-i-ka-malama-o-Kā'elo — *E ho'ōulu i ka i'a a piha ka wa'a o kākou i ke aku* (Cause the fish to rise and fill our canoe). When he finished speaking these words, the *aku* began quivering about the canoe and Mākālei began taking the *aku*. When he was finished fishing, the fish stopped gathering in their school and Mākālei mā returned to the shore of Ka'elehuluhulu. Landing on the shore, Mākālei took one *aku* and told his *kāohi* "Divide the fish equally among yourselves, don't one of you be greedy, but divide them equally. And if there are fish left over, give them to the people dwelling in the houses as has been done before, and this is how it should always be done..."

**Selected References
to Places and Events:**

- Practices of sharing catch
- 'Aumākua present, customs of caring for fishing equipment

Narrative:

...Do not mutter, or grumble within yourselves, nor should you speak boisterously (loudly), stating that you are giving fish to those people who have none. Listen and heed my words, for the 'aumākua lawai'a have all hearing ears, they hear our muttering and the grumbling. And it is them [the 'aumākua] who honor the head fishermen and the chief fisherman. Do not speak of these things to the women or those who do not observe these things. For the 'aumākua have departed from them and that is why they have fish sometimes, and at other times they have none.

Now wash our canoe and clean it so that it is not left dirty, because it is upon the canoe which the 'aumākua lawai'a dwells; and as the house is clean so shall the fish fill the canoe. It is like our own homes — *ke ma'ema'e no ka hale, nui ka po'e kipa mai a nui ka māhalo 'ia 'oia hale no ka ma'ema'e* (when the house is clean there are many who come and visit, and that house is greatly honored for its cleanness)."

- How the cave in Kaulana, came to be called Kolomikimiki

Mākālei then departed and went up to the cave at which he regularly left his pūniu pā (lure and line container) and where he dried his fishing line. Mākālei's fishing lure was called Kolomikimiki, and to this day, the cave in which Mākālei dried his line and stored his lure is called Kolomikimiki — *He ana waiho kānaka 'ia no na po'e a pau o kēia wahi i kēia manawa* (Kolomikimiki is a burial cave, used by the people of this place [Kekaha], at this time).

- During the stormy seasons, the people went to the uplands to cultivate crops

When Mākālei arrived at the home of his parents, he told them about the great catch of aku, and told them that he had given the aku to his kāohi. 'Indeed it is good to give without muttering and grumbling, in that way your canoe will be exceedingly lucky. This is the way to care for the people who work for you, and this is how you come to get fish and good paddlers.' Now as the days passed, the season of fishing ended and the stormy days of Kekaha returned. The waves were stirred up by the wind and storms upon the ocean, and the canoes could no longer depart from the shore. This was the time when one's face turned to the uplands for the livelihood [agricultural pursuits] (March 27, 1928¹⁹).

One day, Mākālei's sisters and some people went to the uplands for food and ate until they were tired of eating; they then returned to the shores where they bragged about the abundant crops grown by Mākālei. Indeed, the growth of kalo, 'uwala, kō, mai'a, and 'awa was more than the eyes could behold. Because Mākālei's fame as a great fisherman and farmer grew, many parents desired to secure him as a husband for their daughters. Many parents and their daughters went before his parents asking this, but Mākālei's parents said it was for their son to decide... [having heard the proposals] ...Mākālei told them that he presently had no thoughts of marrying anyone for it was his desire to first see *Kaua'i-nui-moku-lehua-pane'e-lua-i-ke-kai* (Kaua'i of the great lehua forests which appear to travel by twos to the ocean)

- 'Ahi fishing Customs

When the 'ahi fishing season arrived, Mākālei told his father that he would go lawai'a hi 'ahi ('ahi lure fishing). Ko'a agreed and told his son, 'Here is your 'ahi fishing line, it is called 'Ākani-a-kōlea-i-Kahiki, and this is your inheritance from your ancestress *Hina-i-ka-malama-o-Kā'elo* by the command of your ancestor *Kini-*

¹⁹ The paper published on March 27, 1928 was not available during the microfilming of other issues of the paper carrying this legend. Following a search of various collections, the paper published on March 27th was located in a box at the Hawai'i Historical Society. A copy of this paper was provided through the courtesy of Barbara Dunn, Head Librarian.

**Selected References
To Places and Events:**

- Kapu associated with fishing gear

Narrative:

Kailua-o-mano-Kāne'ohe. Your fine line (*pulupulu*) is called *Haehae-ka-manu-o-Kaupe'a*, it is a sacred cordage and forbidden to be handled by a woman in her time of *wai-mako-o-lehua* (tears of the *lehua* blossoms; i.e. time of menstruation). Ko'a then instructed Mākālei in the setting of his line and the requirements of fishing for the 'ahi.

Mākālei went to the shore and instructed his *kāohi wa'a* in the fishing methods he would use. When they reached the *ko'a*, Mākālei set out the *pākā* (sinker stones), 'ōpelu bait, and *makau* (hooks) and he then called out –

*E ala e ke 'ahi pālaha
E ala e ke 'ahi po'onui*

*E ala e ke 'ahi mālaialena...
O 'Ākani-a-kōlea-i-Kahiki ku'u aho
A o Haehae-ka-manu-o-Kaupe'a ka
pulupulu*

Arise o 'ahi pālaha fish
Arise o 'ahi po'onui fish
(April 3, 1928)
Arise o mālaialena (yellow tipped) 'ahi fish
Cry of the plover at Kahiki is my cordage
And torn apart by the birds of Kaupe'a is
the name of fine line

**Selected References
to Places and Events:**

- 'Ahi fishing in Kekaha
- Kahukahu ceremony offered
- Fishing for 'ahi

Narrative:

As soon as Mākālei finished this prayer, an extremely large 'ahi mālaialena came up; with a yellow tail, barbs and fins, this is the fish called *ali'i mālaialena* (royal mālaialena) and it is the true 'ahi. The fish was pulled close to the canoe, struck with a club, and placed in the canoe. Mākālei mā then returned to the shore where it was offered to the gods in the *kahukahu* ceremony. They then cooked the fish in an *imu* and Mākālei had his paddlers go to call the men, women, and children to partake of the fish.

On the second day, Mākālei had his paddlers prepared many cords, hooks, and baits etc. When they had fulfilled his requests they followed him for they knew that he had true knowledge. Upon reaching the *ko'a* where the canoes were gathered, They mashed the 'ōpelu bait, and set the hooks; Mākālei then called to Kīko'o, Pu'ipu'i, Po'o, and Kapahi telling them to cast their sinkers in to the ocean. Secretly, Mākālei set his sinker into the ocean and when he saw the sign that it had reached the proper depth, he called out to his companions to jerk their lines and pull them out. Mākālei chanted:

*E ala e ke 'ahi pālaha
E ala e ke 'ahi po'onui
E ala e ke 'ahi mālaialena...
E pi'i e ke ka'awili
E pi'i e ke hāluku
E pi'i e ke 'ahi lele
Kuhō lele no a pa'a
i ka 'ai palupalu
'Ai 'ono, 'ai milimili
o nā lawai'a o ka lā loa
O Kīko'o-o-lou
O Pu'ipu'i-a-ka-lawai'a
O Po'o-kō'ai-'ahi-lele
O Kapahi-a-kulanalana
O nā hoewa'a a Mākālei*

Arise o broad 'ahi
Arise o large headed 'ahi
Arise o yellow tipped 'ahi
Ascend o fish that twists
Ascend o fish that strikes
Ascend of flying 'ahi
Leaping fish which splashes
and takes the bait
Delicious food, cherished food
of the fishermen of the long day
[The fishermen] Kīko'o
Pu'ipu'i
Po'o [and]
Kapahi
The canoe paddlers of Mākālei

A ka lawai'a nui o kēia lā
 Ala mai, eia ka 'ai
 Moni 'ia a pa'a i ke kumu pihapiha
 A ku ku'u 'ahi po'onui

The head fisherman of this day
 Arise, here is the food
 Swallowed and held fast, it is the source
 of fullness
 My 'ahi po'onui fish arises

**Selected References
 to Places and Events:**

Narrative:

• Fishing customs practiced in Kekaha

When the lines were pulled up the 'ahi swiftly grabbed the hooks and were drawn to the canoes. They set their lines once again as before. Mākālei called out in chant again and like before each line had an 'ahi. Ten fish were landed and the canoe was filled. Mākālei mā then departed from the ko'a and the other fishermen all spoke of how lucky Mākālei was in the practices of fishermen; all the other fishermen of Kekaha were small [of little status] compared to him.

• Mākālei plans to visit Kaua'i

When the 'ahi season was past, the canoe fleets then set about to lawai'a kūkaula (hand line fishing) for kāhala, 'ōuku'uku, and various fish caught in that method. Upon completion of the fishing season, Mākālei returned to the uplands to cultivate his crops, and as before the kalo and other items grew expansively as a large, overflowing body of water.

One day Mākālei spoke to his mother about his desire to travel and see Kaua'i. Upon hearing this his mother said, "If you go and we two should die, you would not be able to hide our bones." Though Kaua tried to dissuade Mākālei from traveling to Kaua'i, she saw that his mind was set upon the journey and she secretly went and spoke with her husband. She told Ko'a that there would be no one to care for them in their old age if Mākālei should go. Ko'a told his wife to release Mākālei, "He has prepared great fields and there is plenty of food. Our son-in-laws will help, and my companion Ke'awalena is here as well; we will have no trouble. The only thing which will be difficult will be remembering our love for our child. Our daughters have given us grandchildren, only our son remains to find a wife; therefore let him go on his journey..." (April 10, 1928).

• Mākālei travels to Kaua'i and marries there.

As the legend continues, readers are taken through the district of Kohala, to the island of Lāna'i, and on to Kaua'i, where he and Palawai arrive at Ke-kaha-o-Mānā. Mākālei's fame grows through his actions on Kaua'i, and he marries the chiefess, Ka-wai-li'ulā-o-Mānā (The mirage forming waters of Mānā). From this union one son is born, who is named Ka-lei-a-Pā'oa-o-Mākālei (Kalei).

• Ka-lei-a-Pā'oa-o-Mākālei (Kalei) is born

As Kalei grew, he learned all of the farming and fishing skills at which his father excelled. He was also taught fighting skills as lua and ha'ihā'i etc. Lua fighting is one of the things for which Kaua'i was famous, it was unsurpassed in the fighting technique called 'palupalu a lima iku' (June 19, 1928).

• Kalei travels to Kekaha, Hawai'i

...One day, Kalei told his father, "I want to go and travel to Hawai'i, for you have told me about my grandparents, aunts, and their families and I desire to see them at the land of the kaha wai 'ole' (waterless shore)." Mākālei then told his son about the various places which he must visit, and people who he should meet while on his journey. In describing the land of Ka'ūpūlehu, and the hidden water cave of Mākālei, Mākālei said:

• Kekaha-wai-'ole
 • Ka'ulupūlehu

When you reach Kekaha-wai-'ole and land at the place called Ka-'uiu-pūlehu, ask for Ke'awalena. He is a native of those shores, and he is also an elder of yours. He is the 'aikāne (companion) of your grandfather Ko'a-mokumoku-o-He'eia. At his house, you will find food, shelter, a place to rest, and a place for the paddle

**Selected References
To Places and Events:**

- 'Akāhipu'u
- Hu'ehu'e

Narrative:

of Kapa'a-i-luna. From there, you will then ascend to the uplands where you will come to a hill above the *alahale* (pathway). 'Akāhipu'u is the name of this hill. Ascending from the north side of Hu'ehu'e, turn and you will see Kona, and to the other side will be Kohala (June 26, 1928).

When you arrive at the hill, on the Kona side, there you will see the house of your grandfather and grandmother. It is the house at which I was a native before coming to Kaua'i where I took your mother as my beloved wife. When you stand before your grandmother, tell her that your name is Kaleiapā'oa, and tell her that you are the son of Mākālei, born on Kaua'i; also tell them of my great love for them. Now if you arrive and your grandfather has passed away, but the family remains dwelling in the house, tell them you are the son of Mākālei and they will welcome you.

- How to find the water cave of Mākālei

Now if they are dwelling in the uplands and you see that there is trouble with the family because it is a waterless place and all the other native residents have departed to live along the shore, you are not to depart as well. For there is water within the cave which is named Mākālei, it is filled with water and no other person has knowledge of it. Your grandfather and myself kept it hidden; we two, and now you are the only ones who know about this water cave (*ana wai*). It is for you to make this place famous for all the generations to come.

- Mākālei water cave described

It [the water cave] is in a place where there is a depression which we made look as if it was a refuse pit. On the opposite side of the refuse is a large stone which covers the opening, remove it and you may then enter the cave. Because we discarded our plant waste there, no one knew that at this site was a water cave. There are three *wa'a wai* (water troughs; logs hollowed like canoes) stored in the cave; a *wa'a koo* (*koo* wood trough), *wa'a 'ōhi'a* (*'ōhi'a* wood trough), a *wa'a wiliwili* (*wiliwili* wood trough), and *haona* (water scoopers). This is a hidden cave, it is wide and high enough so that you may enter it and stand tall. The water flows to those three water troughs and probably overflows onto the surrounding area.

- Kekaha-wai-'ole

If you learn that your grandfather has died and the sun has remained upon the land (symbolic of a dry period) of Kekaha-wai-'ole, and the families are dwelling in difficulty, you may get the water [reveal it] so that all of the people of Kekaha may know about it.

Now here is the *hōkeo aho hi aku* (bonito fishing line gourd) of your grandfather, it is an inheritance from your ancestress Hina-i-ka-malama-o-Kā'elo and 'Ākani-a-kōlea-i-Kahiti, the cordage is for you. And this *pā hi aku* (mother of pearl bonito lure) named Kolo-mikimiki is also an inheritance for you, for you are my only son and you have taken up the practices and skills of the fisherman (July 3, 1928).

- Hale'uki

In the closing issue of the legend readers are told of the journey Ka-lei-a-Pā'oa-a-Mākālei took to Kekaha, Hawai'i, from Kaua'i. He landed his canoe at Hale'uki, a canoe landing of Ka'ūpūlehu, and was greeted by his foster grandfather Ke'awalena. Kalei learned that his grandfather Ko'a-mokumoku-o-He'eia had died, but was told that his grandmother Ka-ua-pō'ai-hala-o-Kahalu'u still lived at their residence in the uplands. Indeed, life for his grandmother and family was difficult because of the lack of water, and it was at that time that Kalei revealed the water cave of Mākālei (*Ke ana wai o Mākālei*) to the people of Kekaha. (August 21, 1928)

- Ke-ana-wai-o-Mākālei

**Ko Keoni Kaelemakule Moolelo Pono! — The True Story of John Kaelemakule
(Kakau pono iā mai no e iā — Actually written by him²⁰)**

In a two year period between 1928 to 1930, John Ka'elemakule Sr., wrote a series of articles that were published in serial form in *Ka Hōkū o Hawai'i*. The story is a rich account of life at Mahai'ula-Kaulana in the period from ca. 1854 to 1900, and also provides readers with insight into the larger Kekaha region. Ka'elemakule's texts introduce us to the native residents of Kekaha, and include descriptions of the practices and customs of the families who resided there. His narratives also provide us with important discussions on sites of traditional and historic importance within the lands of Kekaha Kai State Park and the larger Kekaha region. The following excerpts include Ka'elemakule's history and stories that help us to understand the park lands.

Selected References to Places and Events:	Narrative:
<ul style="list-style-type: none"> • Family background of John Ka'elemakule 	<p>I (Ka'elemakule) was born in the uplands of Kaumalumu, at the place called "Makapiko." It is rather high up on the land, and from there, one can turn and look out across <i>ke kai mā'ok'ioki o nā Kona</i> (the streaked sea of Kona). My mother was Keaka (Ke-aka-o-nā-Ali'i), who was a close relative of the chief Kinimaka. It was he who attempted to construct the road that runs straight behind, the road that runs between the three mountains of Hawai'i, to reach Hilo. At that time, my mother lived and ate in the presence of the chief Kinimaka...</p>
<ul style="list-style-type: none"> • How Ka'elemakule named 	<p>When Kinimaka heard that my mother had given birth to me, he called my mother, telling her to name the child "KAELEMAKULE." The reason for Kinimaka's request was that it was at a time that he dwelt in the uplands of this place [Kaumalumu], cultivating the land in his old age ("<i>Mahai ELEMAKULE</i>"). My mother couldn't disagree with her chief benefactor, thus, I was named "KAELEMAKULE" as a result of the cultivation work undertaken by the chief Kinimaka in his old age.</p>
<ul style="list-style-type: none"> • Born in 1854, just after an epidemic had killed many Hawaiians 	<p>I was born in the month of January, in the year 1854, shortly after the end of the restriction on the island of Hawaii, that had been in place as a result of the small-pox (<i>ma'i hebera</i>) epidemic; the epidemic was perhaps around 1852 to 1853. In 1854, the restriction of travel between the islands was ended, and this great tribulation that had been upon the Hawaiian nation passed. In the height of this epidemic, thousands of Hawaiians were killed. I arrived just as this passed over our people, and the days of hope returned to our Hawaiian people and land. [May 29, 1928:4]</p>
<ul style="list-style-type: none"> • Given to Kaikaula and Poke, to be raised at Mahai'ula • Kekaha • Makalawena • Fishing the main work of those who lived at Kekaha wai 'ole 	<p>Six months after my birth, I was given in adoption to Kaikaula and his wife Poke, and they took me to their home at Mahai'ula, one of the villages [or hamlets] of Kekaha. It was fishing village next to Makalawena, about 12 miles distant from Kailua, North Kona. There are several fishing villages along the length of shore of <i>Kekaha wai ole 'o nā Kona</i> [the waterless Kekaha of the Kona lands]. And the main work of the residents of this "<i>aina Kaha</i>" (arid coastal land) was fishing, all manner of fishing.</p>

²⁰ This account was published in serial form in the Hawaiian newspaper *Ka Hōkū o Hawai'i*, from May 29, 1928 to March 18, 1930. The translated excerpts in this section include narratives that describe Mahai'ula and nearby lands in Kekaha with references to families, customs, practices, ceremonial observances, and sites identified in text. The larger narratives also include further detailed accounts of Ka'elemakule's life, and business ventures. A portion of the narratives pertaining to fishing customs (November 13, 1928 to March 12, 1929), and canoeing practices (March 19 to May 21, 1929) were translated by M. Kawena Pukui, and may be viewed in the Bishop Museum-Hawaiian Ethnological Notes (BPBM Archives).

**Selected References
To Places and Events:**

- Goods and supplies exchanged between residents of the coast and uplands. (goods traded from as far as Kohala, Waimanu and Maui)

- Pa'i 'ai traded for dried 'ōpelu, 'ahi, aku, and other fish

- Fishing canoes couldn't put out to sea during the stormy season

- During the stormy season, provisions were furnished from the uplands

- Large kou tree once grew at Mahai'ula

- Henry Weeks made 'umeke from the kou of Mahai'ula

- Kekaha

- Mahai'ula – it was the custom of the families to share food

- When he was a youth there were many children along the coast

Narrative:

It was from these various practices of fishing that the natives of these villages of the shores of Kekaha gained their livelihood. The residents of these shores lived by fishing and drying the fish. Then when people from the mountain came, they traded the fish for bundles of pa'i 'ai (partially pounded poi), trading also with those who came from Maui, Waipi'o, Waimanu, and sometimes with those who came from North Kohala.

This is indeed a land of hunger, and only with patience could one survive. In good times, boats and sail ships would arrive, bringing the bundles of pa'i 'ai to trade for dried fish. The dried aku, 'ōpelu, and diced 'ahi were good to dry. There were also the different fish of the sea, like the ulaula, the 'ōpakapaka, the kāhala, and the various other fish like that.

In the time when the storms returned to the "Aina Kaha," the boats could not bring the pa'i 'ai, and the fishermen of Kekaha could not go out to the sea. It was then that there were times of desperate hunger while dwelling on this land... At the time when the storms returned to the coastal lands of Kekaha, the winds blew with great strength and the ocean was whitened by the waves. Great waves covered the points along shoreline of that land that was beloved by the elders...

In those stormy days, when the ocean was whitened by the strong gales, and the waves covered the coastal points of Kekaha, the fishermen no longer looked to the sea, for they knew that the storm was upon the land. We hungry children, would climb up the great kou trees and turn our eyes to the uplands desiring to see the friends from inland, descending with bundles of 'uwala (sweet potatoes), kō (sugar cane), mai'a (bananas), and other things which we hungry people of the beloved coast could eat. These kou trees, were from the time of the ancient people, and in the days of my youth when I traveled around Mahai'ula, there were 19 great kou trees growing. Two people could not encircle the trunk of one of those trees that had perhaps been planted in the ancient times of the chiefs of our land.

It was Henry Weeks of Kāināliu who cut down these great kou trees. He made wooden bowls ('umeke lā'au), and used the kou wood to make his machine shop in which 'umeke were made, in the uplands at Kāināliu, and afterwards, he became well off. It was from Kekaha-wai-'ole that Kona got its wood to make the kou bowls. Thus, those trees that we children climbed to look to the uplands for the coming of the "Ko a uka" (people who dwell in the uplands), with their bundles with which to satisfy our hungry eyes, came to be no more... [June 5, 1928:4]

Upon the arrival of those friends of the uplands, from various places inland of Kekaha, they would visit the houses of their companions, bringing bundles of pounded uwala (sweet potato) wrapped in "omao-lai" (bundles of ti leaves), and other times they brought bundles of partially pounded poi. When those goods reached one of the houses at Mahai'ula, as was the custom of those who lived on the coast in days gone by, the goods were divided up among the various households. They were not greedy ('ānunu), the provisions were divided among the households of the native fishermen of the waterless shore of Kona...

When I grew older and it was time to go to school, I entered the Hawaiian school. Indeed, in those days there were many boys and girls who dwelt along this coast, and the school room was filled with students. It was in a meeting house built by the Father Thurston (Makua Kakina).

**Selected References
to Places and Events:**

- Reverend Thurston had the meeting house built
- Ka'elehuluhulu was the landing
- Po'oko'ai hosted Thurston, and was the church leader
- Families came to Kaulana from Ka'upūlehu, Kūki'o, and Makalawena to attend services

- Makaloo obtained from remnant of the Pa'aiea pond, a portion is still seen at Ka'elehuluhulu

Narrative:

The missionary had the meeting house built and it also served as the school...It was at that time in my youth when I was living with my foster parents, that I first saw Mr. Thurston. He traveled on a canoe on Saturday and landed at Ka'elehuluhulu and stayed at the place of Pookoai, who was the church leader of this place...Following the arrival of Mr. Thurston, many people came on canoes the next morning, they were our relatives from Ka'upūlehu, Kūki'o, and Makalawena...In the church where Mr. Thurston held the prayer service, long *koa* benches were placed along the walls, and in the center of the church, the *makaloo* sedge had been spread on the floor. The *makaloo* was obtained from what remained of the famous pond that was covered by the eruption. It was the pond Pa'aiea, a portion of which remains at Ka'elehuluhulu to this day. That is what remains of the great pond that was several miles long, but is now covered by the stone plain that spreads across Kekaha... [June 12, 1928:4]

The narratives that continue over the following months tell readers of Ka'elemakule's youth and how he came to travel to various locations on the island of Hawai'i, and his eventual marriage to his first wife who came from O'ahu. This wife was affectionately referred to as "*Ka Ui Lei Ilima o ke one Aialii o Kakuhihewa*" (The beautiful garland of 'ilima blossoms of the sands of the chief Kakuhihewa). Ka'elemakule's detailed narratives then return to the days of his youth, and he describes the various techniques of fishing that he learned from his foster father Kaaikaula and others of the foremost fishermen of his day. The fish caught, and methods of fishing he described include the following topics:

- a variety of mother of pearl hooks; the *pā hi aku* and *pā hi 'ahi* (various mother of pearl hooks used for *aku* and *'ahi* fishing);
- how the *pā* lures came to be used in Kekaha;
- the *kapu* (restrictions) observed in making hooks, fishing, and canoeing;
- methods of line fishing;
- *'ōpelu* fishing techniques; and
- various methods of canoeing (including *kapu* that were observed, and how he was trained in the skills of righting a capsized canoe in the deep sea (*ka ho 'olana wa 'a ma ke kai hohonu*)).

In the following portion of the Ka'elemakule texts, there were only a few references to specific locations. Site references, texts that mention people, and a general overview of Ka'elemakule's fishing narratives are included in below.

**Selected References
To Places and Events:**

- Fishing customs of Mahai'ula-Kaulana handed down from ancient times

- Kaaikaula instructed Ka'elemakule

Narrative:

...The fishing customs in our land, as handed down from ancient times, is something that was greatly regarded by our beloved chiefs. Cherished customs, taught to the children by their parents. The practices of farming were taught to those of the land, and the practice of fishing were taught to those of the coast. Those were the important skills in the ancient times of our ancestors... Let me tell about the customs of fishing in the deep sea, for these are among the things that were practiced by my foster father Kaaikaula, and that he taught to me. Among the important fishing practices of Kekaha, that I was taught in my youth were *aku* fishing, *ahi* fishing, and fishing for *opelu* with nets. These were the important fishing customs that I was taught...

**Selected References
to Places and Events:**

• *Ko'a 'ōpelu* was closer to shore than the *ko'a* called Hale'ohi'u which was used for 'ahi and aku

• Customs of fishing for *aku* at the *ko'a* called Hale'ohi'u

• Origin of the *pā aku* (mother of pearl *aku* lure)

• Foremost *aku* fishermen of Kekaha remembered
• Nahale dwelt at Makalawena

• Hoino dwelt at Mahai'ula

• Hale'ohi'u was the famous *ko'a*

• Pahupiula was from Makalawena

• After the deaths of the old fishermen, Makanani and Kamaka became the lead Fishermen at the *ko'a* of Hale'ohi'u

• Ka'elemakule himself was also a lead fisherman

• Customs of 'ahi fishing

Narrative:

Fishing for these fish was done at the *ko'a 'ōpelu* (*'ōpelu* fishing station or grounds), that was not too far out. And beyond that, was the *ko'a* for *aku* and 'ahi fishing. The *ko'a* for these fish (the 'ahi and *aku*), was the famous *ko'a lawai'a* (fishing ground) of Kekaha, known by the name, "Haleohiu..." [November 13, 1928:3]

Aku Fishing

Aku fishing was done with a *pā* in ancient times by our fishermen ancestors, at the famous *ko'a* of Hale'ohi'u, of the land of Kekaha-wai-ole-o-nā-Kona...From this waterless shore of Kona, it is believed that the first *pā aku* fishing was found, made from the shoulder blade (*iwi hoehoe*) of Keuwea. He was the father of that famous fisherman of Kekaha, called Ka'eha. His story was seen in the "Newspaper, the Star of Hawaii..." [in 1907]. It is said in the legend, that Ka'eha killed his father, at his father's command, and that Keuwea's shoulder and thigh bones were thrown into a *kāheka* (tidal pool) of Kekaha. On a following day, Ka'eha went to look at his father's bones and he saw growing up from them, some *pāpaua* (mother of pearl bivalves). From the *pāpaua* on the right side, Ka'eha made the "*pā hi aku kuahuhu*" (the *kuahuhu aku* lure). The *pāpaua* that was on the left side, was thrown into the sea, and that is the reason that the *pāpaua* spread throughout the islands, and how it came to be used for *aku* lures... [December 11, 1928:3]

...It is perhaps appropriate for me to mention some of the famous *aku* fishermen of the days of my youth, those who I fished with at my home of Kekaha-wai-ole-o-nā-Kona where I was reared. The fishermen whom I mention, their names are on the list of the foremost *aku* fishermen of those days. Nahale was one of the head fishermen at that time. He dwelt in his home at Makalawena, in the land of Kekaha. He was famous for his distant traveling, finding of the *aku*, and *aku* lure fishing. He was very strong and could lift the *aku* onto the canoe... Hoino was another famous *aku* lure fisherman of those days. He was a resident of Mahai'ula, and he would fish for *aku* with lures at Hale'ohi'u, the famous *ko'a* (deep sea fishing station) of Kekaha. When I was young, before I became an *aku* fisherman, I was one of his canoe men... Pahupiula, was a part Caucasian fisherman, and he is the third of the fishermen that I remember here on this page. He was very smart in fishing for *aku* with lures, and very fast at getting the *aku* off of the lure and into the canoe. He was from the village of Makalawena... [January 15, 1929:3]

...When I left Kekaha, Pahupiula and the other head fishermen had died, and new head fishermen arose. Makanani was one of the lead fishermen later. But, not only him, there was also Kamaka, who was among the foremost fishermen of the famous *ko'a*, Hale'ohi'u. These men held that position later and their fame was made known, because of their strength, alertness, and readiness in lifting the *aku* fish to the canoe, and their quickness in freeing the fish from the *pā*.

The well known head fishermen of Kekaha, those who practiced and became the foremost *aku* fishermen were Nahale, Hoino, Pahupiula, Ka'elemakule, Makanani, and Kamaka. All of them were fishermen of the first class... [February 5, 1929:2]

Ahi Fishing

Ahi fishing was also an important practice. ...The bait that was for *ahi* fishing at the *koa* of Haleohiu, as well as at other *koa*, was the whole *opelu*. Also the sliced *opelu* mixed with *aku*. Sometimes, when there was none of this type of bait, the *weke 'ula*, *weke lā'ō*, and even the tail meat of the 'ahi were used. Some fishermen also used the *po'ou*, *moi*, and *akule* as bait... [February 26, 1929:4]

**Selected References
To Places and Events;**

- 'Ōpelu fishing practices

Narrative:

'Ōpelu Fishing

Ōpelu fishing was another one of the important practices of these islands in ancient times; it was perhaps the foremost of the practices in the streaked sea (*kai mā'ok'ioke*) of Kona. It became the type of fishing that contributed to the livelihood of the fishermen and their families... For *'ōpelu* fishing, two men are adequate in going on the canoe to the place of the *ko'a 'ōpelu* which has been known since the days of the ancient people. It is at a place where one can look below and see the fish, that he prepares to feed the *'ōpelu*. The man at the front of the canoe is the fisherman, the one who is prepared for this manner of fishing, he leads in all things for this kind of fishing.

There in front of the fisherman was set out the bait of the *'ōpelu*, that is the *'ōpae 'ula* (red shrimp) and sometimes other baits as well. He'd give the man at the back of the canoe the bait, this man would do what ever the fisherman told him to. The man in the back had a stone weight, the black dirt, and the coconut sheath in which the *'ōpae 'ula* or other bait would be placed and folded in. This would be wrapped with cordage and let down into the water about 2 or three fathoms deep, then the man would jerk the cord and the bait would be released. The water would be blackened by the dirt, and this would help the fisherman see the *'ōpelu* eating in the water... When many *'ōpelu* were seen, he would have the man feed the fish again and lower the net into the water. While the *'ōpelu* were eating, the net was drawn up, and as the fish tried to swim down, they were caught in the net...

- Kaloahale in front of Awalua was the *ko'a 'ōpelu* used by the people of Mahai'ula-Kaulana

While I was a youth living at my beloved land of Mahai'ula, I fished for *'ōpelu*. I went with my foster father, Kaaikaula, to fish for *'ōpelu* at the *ko'a 'ōpelu* (*'ōpelu* fishing ground) called "Kaloahale," it was directly seaward of the black sand shore of Awalua... [March 5, 1929:4]

In c. 1874 Ka'elemakule became the school teacher at Makalawena, a few years later he entered into the business of marketing fish. In 1880 he built his wooden frame house, Kalāhikiola, at Mahai'ula, that still stands on the shore today:

**Selected References
to Places and Events;**

- Fishing canoe fleets returned to the sea during calm weather
- Ka'elemakule enters into the business of selling fish
- Kept his money hidden in a cave
- Had lived in a thatched house, up to this time, but decided to build a wooden house
- Describes how the Ka'elemakule house at Mahai'ula was built

Narrative:

...When the calm weather returned to the land of Kekaha, that was the time that one saw the *lehua* blossoms return to the sea [a poetical description of the people from the uplands who dwelt in the area of growth of the *lehua* trees, and who returned to the shore for fishing in good weather]. It was then, that I would also see the fleets of canoes traveling from one extremity to the other upon the sea of my beloved land. At those times, people were also seen looking for *aku*, the fruit of the sea. It was at this time that I entered into the business of trading the fine dried fish of the land, taking them to Kawaihae and sending them to Honolulu. I continued this work for some time, moving forward without any problems befalling me. As a result, I accumulated quite a bit of money, which I kept hidden in one of the caves of the land. When the money accumulated, I got the idea that I should build a new house for my foster parents and family at Mahai'ula. Up to that time, our house was a Hawaiian house, that had been built in my childhood. We had re-thatched the house twice with *pili* as was done for so long in Kona... Our house was old and the purloins and post were beginning to deteriorate. After speaking with Poke, my foster mother, it was agreed that we would build a wooden house (*hale laau*). I went to Honolulu and spoke with Papai, a *haole* who was smart to speak Hawaiian. Papai asked me how big the

**Selected References
To Places and Events:**

Purchasing and shipping the
lumber for Ka'elemakule's
house at Mahai'ula

The house is built

- House named Kalāhikiola by
Poke
- David Alawa of Hōlualoa
composed a song for the
house dedication

Narrative:

house was to be. The house would be 32 feet long, 19 feet wide, with an 8 foot wide porch in the front and in the back. The rough cut wood cost 4 cents [a foot] and the finished wood cost 3 ½ cents [a foot]... [July 9, 1929:3]

The cost of the lumber and shipping came to 760 dollars, and I had saved enough to pay for all of it. Papai asked me where the landing was that the lumber would be dropped off at, and I told him, Mahai'ula. The lumber was loaded on the steam ship *Likelike* and brought to Mahai'ula. Papai told me that the *Likelike* would arrive at night time, and that I should watch for it. When it arrived, I was to paddle out to a deep place in the bay, with some lights on the boat so the ship would know which was the right bay. The night the steam ship *Likelike* came, I went out in my boat, with a lantern on the mast. The lumber was unloaded into the ocean and we gathered it up, taking it with the skiffs to the shore of Mahai'ula... Upon inquiring, I learned that Hauhili was the most skilled carpenter in Kona. He was not only a skilled carpenter, but was also skilled at setting the *kahua* (stone platform). I wrote a letter to him inquiring if he could come and build my house, but he answered that he was working at the time, and could not. So as a result, I got Nuhi, the youth who worked with Hauhili, and he built our house. Later, while we were building the house Hauhili arrived at Makalawena. [July 16, 1929:3]

Hearing that Hauhili went to Makalawena, I went to see him, and asked if he would come to Mahai'ula with me...He came, and praised the nature of the house... [July 23, 1929:3]

When the house was completed, Poke, my foster mother, named the house "Kalāhikiola." We spoke about this and I desired to have a song for our house on the day of the feast for moving into the house. I asked my friend David Alawa of Hōlualoa, who was a skilled song writer, if he would compose a song. He agreed, and two weeks later, I received the song which filled me with joy. Here is the name song, "Kalāhikiola," that David Alawa wrote:

- 1 *E naue kakou i Kalāhikiola
I laila kakou e lūana ai
I ike i ka nani oia Home
Home ku kilakila i ka lihi kai
E hauoli me ke aloha
E hauoli me ke aloha
E hauoli me ke alo—ha
Hulo, hulo kakou.*
- 2 *Kuu Home kahakai e ku nei
O Kalāhikiola la he inoa
E kipa e na mea a pau
Eia e ka Home no kakou
E hauoli me ke aloha...*

We go to Kalāhikiola
It is there that we shall find comfort
And see the beauty of that home
Home which stands majestically upon the shore
It is happy with love
It is happy with love
It is happy with love
We call out hurrah, hurrah.
My home there upon the shore
It's name is Kalāhikiola
All are welcome
Here is the home for us
It is happy with love...

**Selected References
to Places and Events:**

- Kalāhikiola dedicated
- Fish came from the area, with
awa from Makalawena pond

Narrative:

Thus the song goes. There is one more verse, but perhaps this is enough for now.

As we prepared for the feast to enter the house, there were not many things that would be set out, but they were things which we Hawaiians were accustomed to. It was *poi*; *kālua* (roast pig); *poi palau* (taro pudding); and things of the ocean, like the 'ōpihi (limpets), *limu* (seaweeds), *wana* (urchins); and the fat

**Selected References
to Places and Events:**

• People from all over Kona
celebrated

• House built in 1880

• Mahai'ula

• There were many houses along
the shore, and nine canoes

• The ko'a was named Hale'ohi'u

• Hualālai
• 'Ōlauniu was the evening
breeze
• Residences and temporary
houses of Mahai'ula-Kaulana
described

• Pāhoehoe flats along inland
trail has names of residents
etched on it

• Pōhakuolama

• Pōhakuolama a fish god stone,
causes the increase of fish

Narrative:

milkfish that came from the fishpond of Makalawena (*awa momona o ka loko i'a o Makalawena*).

When everything was ready, people came from all over Kona. From the uplands of Kalaoa, from the shores of Ka'ūpūlehu, Kūki'o, and Makalawena, all of those people who mingled with us of Mahai'ula... [August 6, 1929:3] ...I was 26 years old [in the year 1880] when I built this house for my wife and foster parents on this land of Kekaha..

The Appearance of the Land of Mahai'ula

...The land of Mahai'ula is there on the western side of the great island of Hawai'i, in the division of land of Kona Kai'ōpua (Kona with the billowy clouds on the ocean). And it is there, that I was reared by my foster parents.

As I was growing up, I learned that there were many fishermen living at Mahai'ula, and there were many houses when I was little. There were 9 canoes that were landed along the shore at Mahai'ula. There is a good bay, and the shore is covered with white sand, from one extremity to the other. It was at this canoe landing that one would find canoes all year round, even during stormy times. Dwelling upon the shore of Mahai'ula was good, and looking out to the sea, was the famous ko'a called Hale'ohiu.

The majestic mountain, Hualālai was inland, and the vast expanse of the sea was in front. The sun appeared in the east and set in the west. In the evening the 'Ōlauniu breeze blew from inland, gently across the land. (There were many breezes which made living at Kekaha comfortable.) The fishermen of this land made temporary houses on stone platforms under the kou trees (*pāpa'i kou hale*). These were often very close to the shore along the white sands of the canoe landing. It was a treat for the visitors to look at. At the back of the village, going inland about three miles it was only pāhoehoe lava. To the north and south, pāhoehoe and 'a'ā also covered the land to the seaward points.

There is a fine broad place on the pāhoehoe, about two miles from the village, along the trail that ascends to the uplands (*alanui pi'i i uka*), that one can see many names of the old people written upon the pāhoehoe. The names and letters are etched in the pāhoehoe. In several of the names that I saw written there, was the letter "Z," which is the first letter of the name like "Zeahiwela" and "Zaumoana." This is a letter which was not used in the mother language of our land. We begin at the "A" and go to the "W," so how did the old people get this letter "Z"? [August 20, 1929:3] That letter "Z" was also seen written in a tattoo on the chest of a man of Hōlualoa, now dead, his name was Zualahiwa (Kualahiwa).

There in the middle of the bay and canoe landing of Mahai'ula, is a stone in the water. It stands just a few fathoms out from the shore. When the tide is out, you can walk out to and get on the stone. The ancient name by which this stone was known is "Pōhakuolama." This stone looks like a block on which women weave hats. It is round from top to bottom, two people can encircle it, and it is 5 feet high.

It is said in the legend, that the stone is the body of a woman, and it is a stone which causes the increase or abundance of fish for the fishermen of this land, Mahai'ula. For three months, this female stone dwells in a period of *kapu* (restriction), a period of menstruation. This is in the months of May June, and

**Selected References
To Places and Events:**

Narrative:

July. During the time of defilement, the fishermen of old, were also forbidden from taking offerings to the stone with which to ask for the increase of fish. When this female stone, in the bay and canoe landing of Mahai'ula, dwelled in her period of menstruation, the water appeared yellowish-red (*hālena melemele 'ula*) in shallow waters to about two fathoms depth. But when one looked into the water, it could not be seen. The yellow-red remained in the bay of Mahai'ula for the three months mentioned above, and it was so for all the years of my youth. Perhaps it is the same, even at this time.

- Seasonal offerings made to Pōhakuolama

At the time when her menstruation ended, that was time that she would be purified, the defilement of the period ended. It was at that time also, that the yellow-red would also disappear and the sea water of Mahai'ula became clear once again. Then once again, the fishermen of Mahai'ula would take offerings to her asking that she would cause the fish to increase.

- Mahai'ula and all of Kekaha known for fishing
- Names fish which are caught

This Mahai'ula, is a land of fish. Not only Mahai'ula, but all of the lands of Kekaha. That is perhaps the reason that the ancient people called this land "Kekaha." If one wants fish quickly, the fire is lit first, then the fish come together in a school. There are many *ku'una upena* (net fishing stations) right in front of the village. The *manini*, *weke lā'ō*, and *'anae*, are the fish which are found in these net fishing stations. The fire does not burn long before the fish quiver on the flame. It was also along these seaward points, that in our youth, we found much pleasure in *kāmākoi* (pole fishing), getting many fish. And if you like the *po'opa'a* fish, there among the little inlets and fissures, the *po'opa'a* can be found. [August 22, 1929:3]

- Women gathered near shore fish

There are multitudes of fish that can be caught with the pole along the shores of this land. Among them are the *moi*, *moana*, *'a'awa*, *kūpihi*, *weke*, and all manner of fish. If you desire the *wana*, they can be gotten from the depths to the shallow waters. If you like the *ina*, they too can be gotten to fulfill your desire. There are also many *'ōpihi* on this land. The best place is to the south side of Mahai'ula. Many of the women went to do this kind of fishing, gathering the *'ōpihi*. Partially clad in their garments while getting the *opihi*, the women could be compared to the slopes of Mauna Loa [poetically referring to them being bare breasted]. These things are the source of endearing recollections.

- Kekaha, a land without rain

Kekaha is a land without rain, there are perhaps no more than ten times in one year that it rains. The reason for this is that there are not many trees growing on the land of Kekaha. The trees are the thing that pull the rain from the clouds. The drinking water of this land, the water in which to bathe, and the water for doing various tasks, is the water that is partially salty. It is called by the name *wai kai* (brackish water), and it is a water that causes trouble for the visitors to this land.

- Brackish water used for drinking

- Visitors to Kekaha had difficulty drinking the brackish water

It is perhaps appropriate for me to describe the name given to this problem, "*ka wai ōpū nui*" (the water of the big stomach). *Ka wai ōpū nui* is the name that is given to the visitors. They come to the land of Kekaha and are invited in to eat, by the natives of the villages. And because of the deliciousness of fish of this land, the visitors eat large quantities. Then after this, they ask for water to drink. Upon drinking the water, the visitor's thirst is not satisfied, and shortly there after, more water is asked for. And because of the continuous drinking, the stomach is filled. That's why the visitors to Kekaha are called *ka wai opu nui*. So this is a description of the fisherman's land, in which I was reared by my foster parents. [September 3, 1929:3]

**Selected References
to Places and Events:**

- When running the fish business, the fish were taken to Kawaihae and then shipped to Honolulu

- Villages of Kekaha mentioned

- Importance of water
Legend of Mākālei

- Explains how the name
Kekaha-wai-'ole came about

- Kaulana
- 'O'oma

- Water sources

- Strict *kapu* observed for
water sources

- Kāne was god of water

- *Kia'i* watched over water caves

- Ceremonies observed if *kapu*
of water sources broken

Narrative:

While we dwelt in the shelter of our house, Kalāhikiola, fishing was the occupation undertaken. I also continued selling the fish of the fishermen, taking them to Kawaihae and sending them to Honolulu. So every Friday, I would go to Kawaihae. Then I met with Nawahie, who dwelt in the uplands of Kawaihae with whom I went into the business of selling *pa'i 'ai* (partially pounded *poi*), from Maui. On Saturdays, I took the *pa'i ai* along the coast of Kekaha to the fishermen of Ka'ūpūlehu, Kūki'o, Makalawena, and Mahai'ula. The fishermen paid in fish, which we in turn took back to Kawaihae, for delivery to the market at Kai'ōpihi, Kohala. We carried on this partnership for some time, and it was this which caused me to think of making my own store.

Kekaha Wai Ole o nā Kona (Waterless Kekaha of Kona)

We have seen the name "Kekaha wai ole o nā Kona" since the early part of my story in *Ka Hōkū o Hawai'i*, and we have also seen it in the beautiful legend of Makalei. An account of the boy who dwelt in the uplands of Kekaha wai 'ole, that was told by Ka-'ohu-ha'aheo-i-nā-kuahwi-'ekolu [the penname used by J.W.H.I. Kihe]. I think that certain people may want to know the reason and meaning of this name. So it is perhaps a good thing for me to explain how it came about. The source of it is that in this land of Kekaha even in the uplands, between Kaulana in the north and 'O'oma in the south, there was no water found even in the ancient times. For a little while, I lived in the uplands of Kaulana, and I saw that this land of Kekaha was indeed waterless.

The water for bathing, washing one's hands or feet, was the water of the banana stump (*wai pūma'ia*). The *pūma'ia* was grated and squeezed into balls to get the juice. The problem with this water is that it makes one itchy, and one does not get really clean. There were not many water holes, and the water the accumulated from rain dried up quickly. Also there would be weeks in which no rain fell...The water which the people who lived in the uplands of Kekaha drank, was found in caves. There are many caves from which the people of the uplands got water... [September 17, 1929:3]

...The *kūpuna* had very strict *kapu* (restrictions) on these water caves. A woman who had her menstrual cycle could not enter the caves. The ancient people kept this as a sacred *kapu* from past generations. If a woman did not know that her time was coming and she entered the water cave, the water would die, that is, it would dry up. The water would stop dripping. This was a sign that the *kapu* of Kāne of the water of life had been desecrated. Through this, we learn that the ancient people of Kekaha believed that Kāne was the one who made the water drip from within the earth, even the water the entered the sea from the caves. This is what the ancient people of Kekaha wai 'ole believed, and there were people who were *kia'i* (guardians) who watched over and cleaned the caves, the house of Kāne... [September 24, 1929:3]

When the *kapu* of the water cave had been broken, the priest was called to perform a ceremony and make offerings. The offerings were a small black pig; a white fish, and *aholehole*; young taro leaves; and *awa*. When the offering was prepared, the priest would chant to Kane:

*E Kane i uka, e Kane i kai,
E Kane i ka wai, eia ka puaa,
Eia ka awa, eia ka luau,
Eia ka ia kea.*

O Kane in the uplands, O Kane at the shore,
O Kane in the water, here is the pig,
Here is the *awa*, here are the taro greens,
Here is the white fish.

**Selected References
to Places and Events:**

- Prayer to Kāne for purification of water sources

Narrative:

Then all those people of the uplands and coast joined together in this offering, saying:

He mōhai noi kēia iā 'oe e Kāne, e kala i ka hewa o ke kanaka i hana ai, a e hooma'ema'e i ka hale wai, a e ho'onui mai i ka wai o ka hale, i ola nā kānaka, nā 'ōhua o kēia 'āina wai 'ole. Amama. — This is a request offering to you o Kāne, forgive the transgression done by man, clean the water house, cause the water to increase in the house, that the people may live, those who are dependent on this waterless land. It is finished... [October 1, 1929:3]

Ka'elemakule's narratives continue, noting that it was in May 1883, that he was approached by an organization of Kona businessmen to manage a store in Kailua. He describes the evolution of that business and his subsequent acquisition of the store itself in 1888. Ka'elemakule wrote:

**Selected References
to Places and Events:**

- In ca. 1883, moves to Kailua to manage store
- Kaaikaula, Poke, Kamaka and others remain at Mahai'ula

Narrative:

...When I left Mahai'ula, my wife and adopted child went with me. Thus, three of us departed from the home at Mahai'ula. My foster parents Kaaikaula (he was completely blind by that time) and Poke remained at Mahai'ula. My mother Ke-aka-o-nā-ll'i and her husband, Maianu, and their grandson Kamaka, and his wife Lahapa lived at Mahai'ula as well. When I went to live at this land (Kailua), I left all of my fishing supplies in the care of my step father, Maianu and Kamaka, his grandson. By this time, my foster parents were weak and could not continue fishing... [October 22, 1929:3]

- Kaaikaula takes ill, and in 1883, dies. He is buried in the cave Kolomikimiki

...Three months after moving to the store at Kailua, Kaaikaula took very ill. Hearing this news, I returned to Mahai'ula, and as I drew near, I heard the wailing of my foster mother, Poke. When I arrived at the house, Kalāhikiola, Kaaikaula was being prepared for his long sleep... We took his earthly body to be placed in the cave of Kolomikimiki, where people were buried. It is about one mile inland from the house at Mahai'ula. It is there that he rests in the eternal sleep. After that, when I returned to the store at Kailua, I took Poke to stay with me... [October 29, 1929:3]

- Poke goes to live in Kailua with Ka'elemakule

- In 1903 Poke takes ill

It was in 1903, after more than 15 years of running the store and serving in various government positions, including postmaster and homestead land agent, that I notice my foster mother's health was declining. She was very old and perhaps knew that her end was drawing near... It was at that time that she spoke to me, these beloved words that I shall never forget. Our living has been one of *aloha* (love), and you did not simply forget me when your foster father passed away, and now it is perhaps I who will depart from you. Here are my words to you when I pass away, that you care for my possessions, that they not be discarded... [February 11, 1930]

- Poke asks to be buried with Kaaikaula

I cried at hearing these words of my foster mother, and then asked her: "If you should depart, should I return you to Kekaha?" She said "Yes. Take me back that I may rest at the side of your father, this was our last desire."

- Poke is buried at Kolomikimiki
- Keakaonāll'i and Maianu also buried at Kolomikimiki

Three days later, she departed from me, and I fulfilled her commandment. I returned her earthly body to rest at the side of her husband (my foster father, Kaaikaula), in the burial cave of the departed, at Kolomikimiki, in Kekaha. When she passed away, my real mother (Ke-aka-o-nā-ll'i) lived for another year, then

Narrative:

she passed away. A short while later Maianu passed away, and both of them were also buried in the cave, Kolomikimiki, in the land of Kekaha... [February 18, 1930]

John Ka'elemakule closes his story, sharing a few personal details about his life. He reports that he was married four times. His first wife, whom he affectionately refers to as "*Kuu ui lei ilima*," was from Oahu. They had been married 20 years when she passed away. Four children were born to them, one a 14 year old daughter and the other, John Ka'elemakule Jr., were still living at the time of his writing. His second wife, Emalia Kauaha'ihao, had been raised at Hōlua-loa. She was the oldest of three girls that he married in that family. Emalia died in child birth. A while later, Ka'elemakule married Pua-Komela Kauaha'ihao, and when she died, he married the youngest sister, Ka'imina'auao Kauaha'ihao. With Ka'imina'auao, the elder Ka'elemakule had a son, Joseph Kaelemakule, affectionately known as Joe (March 4, 1930). In the last article, Ka'elemakule noted that he was 77 years old, and said:

**Selected References
To Places and Events:**

• Ka'elemakule says farewell

Narrative:

I have written this story of my life, and I am now ready to take my own journey...Before going, I wish to give my great *aloha* and thanks to all of you, who have read this little story in the newspaper, *Ka Hōkū o Hawai'i*, and to the editors—*Aloha 'oukou a pau loa* (love to all of you). In ending my time with you, I have prepared a small song, an adornment for *Kona kai 'ōpua*, the land of my birth...

...E Kona, ku'u 'āina hānau, 'āina maika'i.
Nou kēia wehiwehi,
A'ohe nō he mea like me
Kona Kai 'Ōpua,
Ka u'i, ka nani, a me ka maika'i.

Ka Ho'opena

O Kona, land of my birth, a good land.
This adornment (song) is for you,
There is none other like
Kona with its billowy clouds on the horizon,
So beautiful, splendid, and fine.

(the end) [March 18, 1930:3]

Nā Ho'omana'o o ka Manawa (Reflections of Past Times)

In 1924, while *Ka Hōkū o Hawai'i* was publishing a variety of traditional accounts of Kekaha, penned by J.W.H.I. Kihe, he also submitted an article reflecting on the changes he'd seen in the days of his life. The following excerpts (translated by the author), insight into the historic community of Kekaha (ca. 1860 to 1924). In the two part series, he shared his gut feelings about the changes which had occurred in this area—the demise of the families, and the abandonment of the coastal lands of Kekaha. Kihe tells us who the families were, that lived in Kaulana, Mahai'ula, Makalawena, Awake'e, and Kūki'o. And it will be seen that a number of the names he mentions, are those that have been mentioned in other historical documents cited in this study.

**Selected References
to Places and Events:**

• Honokōhau

Narrative:

There has arisen in the mind of the author, some questions and thoughts about the nature, condition, living, traveling, and various things that bring pleasure and joy. Thinking about the various families and the many homes with there children, going to play and strengthening their bodies.

In the year 1870, when I was a young man at the age of 17 years old, I went to serve as the substitute teacher at the school of Honokōhau. I was teaching under William G. Kanaka'ole who had suffered an illness (*ma'i-lolo*, a stroke).

**Selected References
to Places and Events:**

• Hawaiian language spoken in the schools of Kekaha

- Kīholo
- Makalawena
- Kalaoa
- Kaloko
- Honokōhau

• When the schools were required to stop teaching in Hawaiian, and start teaching in English, Hawaiian families and education began to deteriorate

• Honokōhau

• Most of the people of Kekaha are now dead

• Families lived in all the lands of Kekaha, from Honokōhau to Pu'uwa'awa'a

• Honokōhau

• Kaloko

Narrative:

In those days at the Hawaiian Government Schools, the teachers were all Hawaiian and taught in the Hawaiian language. In those days, the students were all Hawaiian as well, and the books were in Hawaiian. The students were all Hawaiian... There were many, many Hawaiian students in the schools, no Japanese, Portuguese, or people of other nationalities. Everyone was Hawaiian or part Hawaiian, and there were only a few part Hawaiians.

The schools included the school house at Kīholo where Joseph W. Keala taught, and later J.K. Ka'ailuwale taught there. At the school of Makalawena, J. Ka'elemakule Sr., who now resides in Kailua, was the teacher. At the Kalaoa School, J.U. Keawe'ake was the teacher. There were also others here, including myself for four years, J. Kainuku, and J.H. Olohia who was the last one to teach in the Hawaiian language. At Kaloko, Miss Ka'aimahu'i was the last teacher before the Kaloko school was combined as one with the Honokōhau school where W.G. Kanaka'ole was the teacher. I taught there for two years as well... [Kihe includes additional descriptions on the schools of Kona]

It was when they stopped teaching in Hawaiian, and began instructing in English, that big changes began among our children. Some of them became puffed up and stopped listening to their parents. The children spoke gibberish (English) and the parents couldn't understand (*nā keiki namu*). Before that time, the Hawaiians weren't marrying too many people of other races. The children and their parents dwelt together in peace with the children and parents speaking together... [June 5, 1924]

...Now perhaps there are some who will not agree with what I am saying, but these are my true thoughts. Things which I have seen with my own eyes, and know to be true...In the year 1870 when I was substitute teaching at Honokōhau for W.G. Kanaka'ole, I taught more than 80 students. There were both boys and girls, and this school had the highest enrollment of students studying in Hawaiian at that time [in Kekaha]. And the students then were all knowledgeable, all knew how to read and write. Now the majority of those people are all dead. Of those things remembered and thought of by the people who yet remain from that time in 1870; those who are here 53 years later, we can not forget the many families who lived in the various (*'āpana*) land sections of Kekaha.

From the lands of Honokōhau, Kaloko, Kohanaiki, the lands of 'O'oma, Kalaoa, Hale'ohi'u, Maka'ula, Kaū, Pu'ukala-'Ōhiki, Awalua, the lands of Kaulana, Mahai'ula, Makalawena, Awake'e, the lands of Kūki'o, Ka'ūpūlehu, Kīholo, Keawaiki, Kapalaoa, Pu'uanahulu, and Pu'uwa'awa'a. These many lands were filled with people in those days.

There were men, women, and children, the houses were filled with large families. Truly there were many people [in Kekaha]. I would travel around with the young men and women in those days, and we would stay together, travel together, eat together, and spend the nights in homes filled with *aloha*.

The lands of Honokōhau were filled with people in those days, there were many women and children... Today [1924], the families are lost, the land is quiet. There are no people, only the rocks and trees remain, and only occasionally does one meet with a man today.

Kaloko is like that place mentioned above, it is a land without people at this time. The men, women, and children have all passed away. The only one who remains

**Selected References
to Places and Events:**

• Kohanaiki

• 'O'oma, Kalaoa,
Kaulana and Mahai'ula
• Mahai'ula noted for it's great
fishermen (families named)

• Ka'elemakule family members
buried near their home
• Makalawena also noted for
great fishermen

• Families of Makalawena-Awake'e
named

• Kūki'o and Ka'ūpūlehu, now
without people

Narrative:

is J.W. Ha'au, he is the only native descendant upon the land.

At Kohanaiki, there were many people on this land between 1870 and 1878. These were happy years with the families there. In those years Kalakoili was the *haku 'āina* (land overseer)... Now the land is desolate, there are no people, the houses are quiet. Only the houses remain standing, places simply to be counted. I dwelt here with the families of these homes. Indeed it was here that I dwelt with my *kahu hānai* (guardian), the one who raised me. All these families were closely related to me by blood, while on my fathers' side, I was tied to the families of Kaloko. I am a native of these lands.

The lands of 'O'oma, and Kalaoa, and all the way to Kaulana and Mahai'ula were also places of many people in those days, but today there are no people. At Mahai'ula is where the great fishermen of that day dwelt. Among the fishermen were Po'oko'ai mā, Pā'ao'ao senior, Ka'ao mā, Kai'a mā, Ka'ā'ikaula mā, Pāhia mā, and John Ka'elemakule Sr., who now dwells at Kailua.

Ka'elemakule moved from this place [Mahai'ula] to Kailua where he prospered, but his family is buried there along that beloved shore (*kapakai aloha*). He is the only one who remains alive today... At Makalawena, there were many people, men, women, and their children. It was here that some of the great fishermen of those days lived as well. There were many people, and now, they are all gone, lost for all time.

Those who have passed away are Kaha'iali'i mā, Mama'e mā, Kapehe mā, Kauaionu'uano mā, Hopulā'au mā, Kaihemakawalu mā, Kaomi, Keoni Alhaole mā, and Pahukula mā. They are all gone, there only remains the son-in-law of Kauaionu'uano, J.H. Mahikō, and Jack Punihaole, along with their children, living in the place where Kauaionu'uano and Ahu once lived.

At Kūki'o, not one person remains alive on that land, all are gone, only the 'a'ā remains. It is the same at Ka'ūpūlehu, the old people are all gone, and it is all quiet... [June 12, 1924]

The Wreck of the Maui (1917)

Having completed a fairly detailed review of Hawaiian historical accounts, it is seen that the native families of Kaulana and Mahai'ula placed a high value on the waters fronting these lands—the area was an important canoe landing and important fishery. There is another, facet to the history of this coast, for which these waters are known. There have been at least two wrecks of western built ships on the reefs fronting the Kaulana-side of Mahai'ula Bay. The one for which a formal record has been located is the *Maui*, which ran aground on March 20, 1917. Pete Hendricks of the Division of Aquatic Resources has worked with various groups to conduct archaeological dives in the area of the *Maui*, and it is anticipated that a report of those findings will be made available at some point in the future (pers. comm. Sept. 23, 1997). Of the event, the Hilo Tribune reported:

Maui Wrecked on Coral Reef

Wrecked in a coral reef extending out from Makalawena Point, on the North Kona Coast, the Inter-Island steamship *Maui*, 650 gross tons, Capt. Williamson, will probably be a total wreck, and the 10,360 bags of Hawi Plantation sugar on board is a total loss.

The *Maui* went on the reef about one o'clock Tuesday Morning and a hole was stove in her bottom through which the water poured into the hold... Shortly after noon yesterday the *Maui* fell over on her beam ends and the indications are that much of her bottom has been torn out by the coral. The weather has been rough following the recent storm, and the steamer is reported to be pounding the reef and has been deserted by her officers and crew... (Hilo Tribune Mar. 21, 1917)

On March 22, 1917, the Hawaiian language newspaper, *Ke Ola o Hawaii* reported on the incident and noted:

Ili ka Mokuahi Maui Iluna o Ka Puko'a ma Kona Akau

Mamuli o keia ino nui i pahola iho maluna o ka mokupuni o Hawaii i kela mau la aku nei...ili ana o ka mokuahi Maui iluna o ka puko'a ma Makalawena... Ua olelo a'e oia ma ke awa o Mahukona o Maui kahi i hoopiha kopaa ai, a haalele iho ia laila no Kailua no ka hoopiha pipi ana mamua o kona huli hoi ana no Honolulu, a loa e iho la nae oia i keia poino...

The Steamship Maui has Run Aground on the Reef at North Kona

As a result of this great storm that fell upon the island of Hawaii in the past days...the steamship *Maui* ran aground on the reef at Makalawena... It is said that the *Maui* was at the harbor of Mahukona first, where it took on a load of processed sugar, it then departed for Kailua to take on cattle, before its turning to return to Honolulu, and it is then that it came upon this disaster... (March 22, 1917).

In his directory of Hawaiian inter-island and registered vessels, M. Thomas (1982) reports that the *Maui* was built in San Francisco "in 1898 by Union Iron Works for Wilder's S.S. Co... [it] Could carry 30 cabin and 150 deck passengers and 13,000 bags of sugar" (Thomas 1982:33). The *Maui* was 171 feet long, by 30.2 feet wide, with a draft of 14.4 feet (ibid.) The oral history section of this study also records the wreck of another ship in the same general area in ca. 1924, a boat named *Kalae* (pers comm., Valentine K. Ako in this study). Evidence of such an occurrence is visible in the waters as well (pers comm., Pete Hendricks; Sept. 23, 1997).

VI. KEKAHA: LAND USE AND AN OVERVIEW OF SELECTED HISTORICAL STUDIES (CA. 1930 TO 1992)

Overview

At the time that J.W.H.I. Kihe and John Ka'elemakule Sr. were writing their accounts, another individual had taken interest in her homeland overlooking the shore of Kekaha—Eliza Davis Low-Maguire, the second wife of John Maguire, of Hu'ehu'e Ranch. As she noted, the writings of Kihe, along with her interest in other stories she had heard, caused her to put some of the accounts in English so they would not be lost (Maguire 1926:3-4). We are fortunate that Maguire compiled "Kona Legends," and since its publication in 1926, it has been the primary source that many researchers used in citing traditional accounts of the region (knowledge of the existence of the full Hawaiian texts was limited).

The following section of the study includes excerpts from a few of the historical and archaeological studies that have been conducted in and around the study area since ca. 1930, and also cites documentation of transitions in land ownership. The goal being to include a few key resources into one volume for easy access and reference to primary resources.

Archaeology of Kona, Hawaii (Reinecke ms. 1930)

Shortly after most of the native families of the Kekaha region left the coastal settlements, Bishop Museum contracted John Reinecke to conduct a survey of sites in the district of Kona (Reinecke Ms. 1930, Bernice Pauahi Bishop Museum). During his study, Reinecke traveled along the shore of Kekaha, including the lands within the present study area. The following site descriptions are recorded in Reinecke's manuscript—it is noted that some of Reinecke's observations contradict those of the native residents, but generally, his discussion is compatible with the native accounts:

This coast formerly was the seat of a large population. Only a few years ago Keawaiki, now the permanent residence of one couple, was inhabited by about thirty-five Hawaiians... [Reinecke ms. 1930:1]

...The fishing is good; there is a fairly abundant water supply of brackish water, some of it nearly fresh and very pleasant to the taste; and while there was no opportunity for agriculture on the beach, the more energetic Hawaiians could do some cultivation at a considerable distance *mauka*... [ibid.:2]

In discussing the "scarcity" of sites that he recorded in the region, he notes that he may simply have missed them, or that they may have been a little further inland than he traveled (his study field was generally within site of the shore). He also notes:

The coast is for the most part low and storm-swept, so that the most desirable building locations, on the coral beaches, have been repeatedly swept over and covered with loose coral and lava fragments, which have obscured hundreds of platforms and no doubt destroyed hundreds more...many of the dwellings must have been built directly on the sand, as are those of the family at Kaupulehu, and when the post have been pulled up, leave no trace after a very few years... [ibid.]

[Land of Kaulana]

Site 90. North edge of Kaulana, at the edge of the flow, and where the coral beach encroaches upon it: Concrete salt pans; six house platforms; stagnant pool. A section of beach with walled pools and a few *kiawe* trees is cut off by a wall. Adjoining it *mauka* are a house platform and a

pen. Within the wall are various patches of wall and one dwelling site. Back of the north end of the wall are six or seven traces of enclosures or sites of some sort, all very small. Also four good *papamu*: 15x13, 9x9, 9x9, 9x9.

Site 91. Small high-walled pen with a house platform outside and two fine natural shelters inside. The platform has a small cave to one side, probably once covered over and used for cold storage. A wall surrounds two or more house platforms and a walled floor of *ilili*. Beyond is a modern concrete and lava platform. *Papamu*, 15x12 rows.

Site 92. Wall and modern house ruins. *Papamu mauka*, (?) 9x8.

[Land of Mahai'ula]

Site 93. Three house sites, one a modern walled house. Back of the wall is a series of low-arched shelter caves.

Site 94. House site in line with the three present houses. Pools and wells by clump of cocopalms. Past the clump is apparently a house site.

There is some *kiawe* at Mahaiula, probably covering some sites. Owing to my hurried tour of the coast here, I did not see the *heiau* which Mr. J. Kaelemakule, a *kamaaina* of the place, says is located at the spot Kaelehuluhulu, on the beach. It is a fishing *heiau*, called HALE O HIU. He says there are petroglyphs on the *pahoehoe* about 1 ½ miles from Mahaiula; I did not find them either. [ibid.:18]

Site 95. Paths running along the coast. Graves and shelters a little *mauka*. Apparently five house sites on the beach, one a definite house platform and one carefully walled. One hundred feet farther on is a long, narrow, walled platform and a bit of shelter wall on a cleared space.

Site 96. Apparently the ruins of several old platforms on the sand.

[Makalawena]

Site 97. A pen; then a series of little ponds and waterholes behind the great dunes. Reaching Makalawena hamlet, one finds a house site by the southernmost house; another house site by the trail; a third just north of the house; a fourth by the row of houses.

Site 98. Makalawena Pond. The pools and springs feeding the pond are walled up in numbers, especially on the north end. At this end too are a few small pens. The water at the south end is very good and fresh.

Site 99. Graveyard at north end of the hamlet.

[Land of Awake'e]

Site 100. Ruins at the head of Awakee Bay: (a) Pools and pond of brackish but potable water. (b) Modern house site with cistern. (c) House platform. (d) Yard with indications of recent occupation but no house site; a house platform a few feet *mauka*, however. (e) House platform over 200' *mauka*. (f) House platform and doubtful dwelling site at north end of beach. (g) Several small remains, possibly two or three house sites

overlooked in the *kiawe* or a little *mauka*. This must have been a hamlet of 30-40 people fairly recently.

- Site 101. Group of house sites; the first two or more are obscured in the sand; then comes a large lot with house sites indistinct probably three in number; a house platform; three (?) house sites in the sand. North a considerable distance is a tiny shelter.
- Site 102. At Kahoiawa: The sand may hide some sites. Four shelters or small hut sites. Then four hut sites on the slope, only one distinct. Still farther along are three hut sites, and there seem to be traces of more *mauka*. [ibid.:19]
- Site 103. On the thin earth slopes of Puu Kuili just north: a wall and fourteen or more shelter or hut sites. A pen or possibly walled house site on a point overlooking the slope.

[Land of Manini'ōwali]

- Site 104. Small house platform; one natural and two artificial shelters.
- Site 105. In a patch of coral fragments: two platforms and a pen. Above them are some shelters and indistinct wave-torn ruins. Perhaps there were a dozen platforms.
- Site 106. A narrow pen and more wave-torn platforms. Three hut sites *mauka*.
- Site 107. Coral: platforms under it; four or five shelters; only one site clear.

[Land of Kūki'o]

- Site 108. Two house sites, small caves adjacent; small pen and house platform.
- Site 109. Shelter pen a little *mauka*. On the beach, three small square platforms, not large enough or low enough for dwellings. Were they *puoa* [burial platforms]? *heiau*? platforms for drying nets?
- Site 110. At the north end of Kua Beach, two pens and a platform. Inland of the beach is a pool and about it on three sides are shelters, small platforms, graves, in the *a-a*.
- There are many graves in this *a-a*, which is distinguished by its tremendous boulders.
- Site 111. Shelter wall and platform in front.
- Site 112. Pool; platforms probably several graves; brackish well. [ibid. 20]
- Site 113. Large platform at the foot of cliff, several shelters and two modern *ahu* above it, pen *makai*.
- Site 114. Remains on Kakapa Bay:
a. At the south end of bay, two house sites, one a large single site, the other a fine composite site. A path leads from here to, and doubtless through, a

great group of graves. Possibly there have been dwellings of some sort on the part directly overlooking the bay.

- b. Traces of walls on the beach.
- c. Composite walled site and small cave shelter overlooking the middle of the beach. Pool beneath.
- d. The entire beach is a series of ruins, four pens, one platform and traces of several more. On the *a-a* a few feet back are a large shelter, a hut site, and what may have been either. Then a ruined shelter; another shelter at the end of the beach.
- e. Wall athwart the path at the edge of the *a-a*. A few yards bare of ruins, then remains of a few platforms along the path; back of it a walled house site and two walled hut sites, some rudimentary shelters, a cairn, and a path running probably to more graves. Two attempts at *papamu* one of which had got as far as 12x7 very irregular rows. Also another partly finished *papamu* on the beach, 10x6. A little *mauka* is a shelter apparently used recently for a burial place. Two fine shelters in the lee of the cliff with a platform in front, probably for shelter, resembling a stack of cordwood in shape.
- f. On the crumbling *pahoehoe*, at least two hut sites.

A close examination of this whole area would disclose many sites and traces of sites of all kinds, especially little caves for shelter and storage. Only the obvious ones have been noted.

- Site 115. Remains on Kikaua Point; near the house: remains of wall to west of house yard. A high, small platform in an admirable location for a fishing *heiau*. One modern house site in the yard, another just east.

There is a legend connected with two great stone at this point, the outline of which is given elsewhere. I did not see the stones. [ibid.:21]

- Site 116. Back of the first beach and clump of cocopalms: Within the enclosure are a pool and a well. Just back of it are five house platforms, one with an incomplete approach form behind. Then a large, rough platform, apparently a house platform; a low house platform in front. A path runs *mauka* to a stone wall about 100 yards distant.

- Site 117. About the second beach and cocopalms: between the two beaches is a fine platform of small fragments, roughly 50x50x3, with a small house platform behind it. The grove is full of very picturesque pools. Past it about 300' is a rough shelter wall and very crude *papamu* (?) 8x7...

[Ka'ūpūlehu-Kūki'o lava flow]

- Site 118. Walled hut site; the stones about a caved-in lava bubble may mark another hut site. Walled shelter, pen. Large pen adjoining the *a-a* flow on Kaupulehu land. Dwelling site on *a-a* above it. A few graves on the edge of *a-a* flow. [ibid.:22]

Stones at Kukio

At Kukio there are two stones, one in the ocean being the *kane* and one on the land the *wahine*. Only part of the *kane* shows above the water. The *wahine* is a great forked stone, about 18' high and 40' in circumference, and three or four men can pass at once between her legs.

The legend connected with the usual one of failing to respond to Pele's begging, and being overtaken by a lava flow and changed to stone. [ibid.:188]

Since Reinecke's limited study was conducted in 1930, numerous archaeological studies have been conducted in Kekaha. Some of those have included work in the area of the park, and they are summarized by Carpenter et al. (1998) in the study prepared for Kekaha Kai State Park. Until the undertaking of the present archaeological and historical work for Kekaha Kai State Park, the most significant historical research conducted for this region, since the 1970s, are those of Marion Kelly (1971) and H. Kihalani Springer (1985, 1989, 1992). Springer is a native resident of the land of Ka'ūpūlehu, descended from some of the families she discusses in her work; and her writings may be likened to the efforts of the *kāpuna*, Kiha, Ka'elemakule, and Maguire.

Kekaha: 'Aina Maio'o (Marion Kelly 1971)

Speaking of members of fishing families of Kekaha, Kelly²¹ (1971) mentions Makalawena and Kūki'o, and families who are descended from former residents of those lands. Many of the individuals she mentions below have been referenced in preceding chapters of this study (and are also cited below in the oral historical interview section of this study):

The 'Ohana of Kinolau

One informant stated that Kukio was once owned by his great-grand-father, Kinolau, who obtained it from Hulikoa...Kinolau and his wife, Ha'ilau-wahine, lived at Kukio and were buried there (Kelly 1971:10). The grandparents, Kinolau and Ha'ilau, raised their family at Kūki'o, and all their children except Ka'ahu'ula were buried there. She was buried at Makalawena because, it was explained, by the time she died, there was no one left to take her remains back to the family burial grounds at Kūki'o. The husband of Ka'ahu'ula was Kaua-i-Nuuanu, a man who was born on Maui but raised in Kohala by foster parents. When the lava flowed at Kiholo [1859] many Kohala people came to Kona to visit and to watch the eruption; some stayed as long as six months. Kaua-i-Nuuanu was one of these, and it was then that he met and married Ka'ahu'ula. They lived at Makalawena where they raised their family, many of whom continued to live there.

One of the daughters of Kaua-i-Nuuanu and Ka'ahu'ula was Kapahukelā, who married Jack Punihaole. Jack had been adopted by his uncle, Joseph Punihaole, who lived near the church at Kohanaiki and who also had a house at Kiholo...Kapahukelā and Jack Punihaole lived at Makalawena with Ka'ahu'ula and raised their family there. One of their children was Lowell Punihaole...Not until he married in 1929 did he move away, to Kealakehe...His mother, Kapahukelā, died at Makalawena and was buried there with his father (ibid.:42,44)

The 'Ohana of Luka Maguire

The fourth child of Kinolau and Ha'ilau was a daughter Haihā. She was said to have married a man by the name of Kahopula'au, and their son, Kealoha, married Kamaile Ha'ilauwahine. Kealoha and Kamaile were the parents of Luka, who was the first wife of John A. Maguire and the mother of Charles Maguire (ibid.:44-45)

²¹ While discussing the present study with Marion Kelly on January 30, 1998, she told the author that she has previously unpublished research materials and interviews for Makalawena and vicinity in her collection. This material, collected in the 1970s would likely be of historical value, and add to the interpretation of the area.

In a footnote about Luka Maguire, Kelly report that the lands of Pupule, as recorded in Grant 2121 for Kūki'o were transferred to J.A. Maguire following her death in 1898 (ibid.:45).

Regional Notes from Kekaha (H. Kihalani Springer 1985, 1989, 1992)

In reviewing some of the more recent history of land tenure and families associate with Kekaha, Springer (1989) reported the following for Kūki'o:

Around 1932, the Stillman family, friends, and relative began spending summers at Kūki'o. The group would ride down from Hu'ehu'e on the old trail "by the hills" to Kūki'o... (Springer 1985:97)

She reports that the trail traveled from the uplands at Hu'ehu'e took them past the cinder cone, Pu'uokai, down which the horses would slide. During their visits, provisions came from the uplands and were also brought by charter boat. Local residents have continued using some the foot trails, both *mauka-makai* and shoreline (Springer 1989:27-28). As noted earlier, water was a highly valued resource in Kekaha, and a geological survey reports that the spring at Lae o Kikaua (Kikaua Point), "is probably the most potable water on the coast of Hualalai" (Stearns and Mcdonald 1946:270; in Springer 1992:195).

Springer also includes excerpts from various interviews with elder residents of Kekaha in her manuscripts (cf. Springer 1989, 1992). Those interviews, in conjunction with the interviews reported in this study add significant documentation to the historic record of families, practices, and sites of Kekaha and the park lands.

Kaulana-Kūki'o: Transitions in Tenure

In 1936, John Ka'elemakule Sr. passed away. Pursuant to his wishes, his remains and those of close to 20 other members of his family, who had been previously interred elsewhere, were brought to the family burial cave at Kaulana. There, the remains were set in place with others that had been originally interred in the cave, and at John Ka'elemakule Sr.'s instructions, the cave was sealed (pers comm. L. Collins and V. Ako). On September 28, 1936, the elder Ka'elemakule's surviving children consolidated title of the Mahai'ula-Kaulana property—Royal Patent Grant 4723—under the ownership of Solomon Ka'elemakule (Liber 1345:259-260). On October 16, 1936, Solomon Ka'elemakule sold the 40 acre beach lot to Ruth Dorothy Magoon, wife of A.K. Magoon, retaining the one-acre cemetery lot for the Ka'elemakule family (Liber 1345:477-478). While family recollections in oral history interviews record that there were discrepancies in how the transaction was handled, the deed lists only Solomon and Margaret Pelekāne-Ka'elemakule and Ruth Dorothea Magoon as signing parties.

The sale of Mahai'ula-Kaulana to Ruth D. Magoon began an ownership tradition which lasted for approximately 55 years. As noted in the interviews in *Chapter VII*, the Magoon family appreciated the significance of the land to its former tenants and they assumed a stewardship responsibility for some the sacred sites on the land. Indeed, when George Magoon died in 1986, it was his desire to be cremated and have his ashes scattered in Mahai'ula Bay. His wishes were fulfilled (pers comm. Tessa Magoon-Dye).

Members of the Magoon family felt a deep *aloha* for the land of Mahai'ula, and in February 1939, A.K. Magoon also applied for government beach lot parcels in the lands of Manini'ōwali and Kūki'o (R.D. King to C.L. Murray, Feb. 2, 1939; Survey Division, Folder No. 419-A). The family and friends visiting the Mahai'ula house, regularly fished and camped at Manini'ōwali and Kūki'o (per comm. Tessa Magoon-Dye). On May 9, 30, June 20, and July 11, 1939, legal notices were published announcing the sale of various government general leases on the island of Hawai'i. Among the available lands were the beach lots at Manini'ōwali and Kūki'o (Tribune Herald). Unfortunately

the available lands were the beach lots at Manini'ōwali and Kūki'o (Tribune Herald). Unfortunately for A.K. Magoon, the Territory entered into an exchange deed with Victor Harrell, who had been required to give up his land next to Hikiau Heiau, at Kealakekua in South Kona (R.D. King to L.M. Whitehouse, Aug. 21, 1939). Records of the exchange note:

C.S.F. 9068 – Lots A, B, C and D, Kukio-Maniniowali Beach Lots – being a portion of Kukio-Maniniowali Government Tract in North Kona, Hawaii, containing an area of 9.00 acres; subject, however, to an easement in favor of the Territory of Hawaii over, across and along the existing trails... (ibid.)

On September 18, 1939, Victor Harrell received Land Patent Grant No. 10774, for nine acres along the beach in Kūki'o-Manini'ōwali (*Figure 13*). Apparently, Harrell never built a house on the Kūki'o-Manini'ōwali beach lots.

The interviews that accompany this study (*Chapter VII*) also record the stewardship responsibilities and native customs of various families who visited the lands now within the park. Of particular interest the interviews also describe the long-term relationship of Jack Una and Annie Punihaole Una with the lands from Mahai'ula, Makalawena, Kūki'o, and Ka'ūpūlehu. Descended from families with generations of residency at Makalawena, Annie Una frequented the land, caring for it and being sustained by it, all of her life. While everyone else had left the beach of Makalawena by the 1946 *tsunami*—which destroyed the remaining houses—Annie Una rebuilt and lived there until around 1960 when she passed away.

On December 19th, 1995, Governor Cayetano signed Executive Order 3677, establishing Kona Coast State Park. Lands within the park included: Parcel A—lands in Kūki'o 2nd, Manini'ōwali, and Awake'e; and Parcel B—lands in Mahai'ula and Kaulana. Within those parcels are portions of the following lands:

Portions of Victor Harrell's Grant 10,774 (Kūki'o-Manini'ōwali)
Portions of Kaha'iali'i's Grant 2023 (Awake'e)
Portions of Government Land of Mahai'ula and Kaulana
Portions of Ka'elemakule's Grant 4723.

The oral history interviews reported in this study provide readers with descriptions sites and events, and the names of various individuals associated with lands in the Kaulana-Kūki'o vicinity.

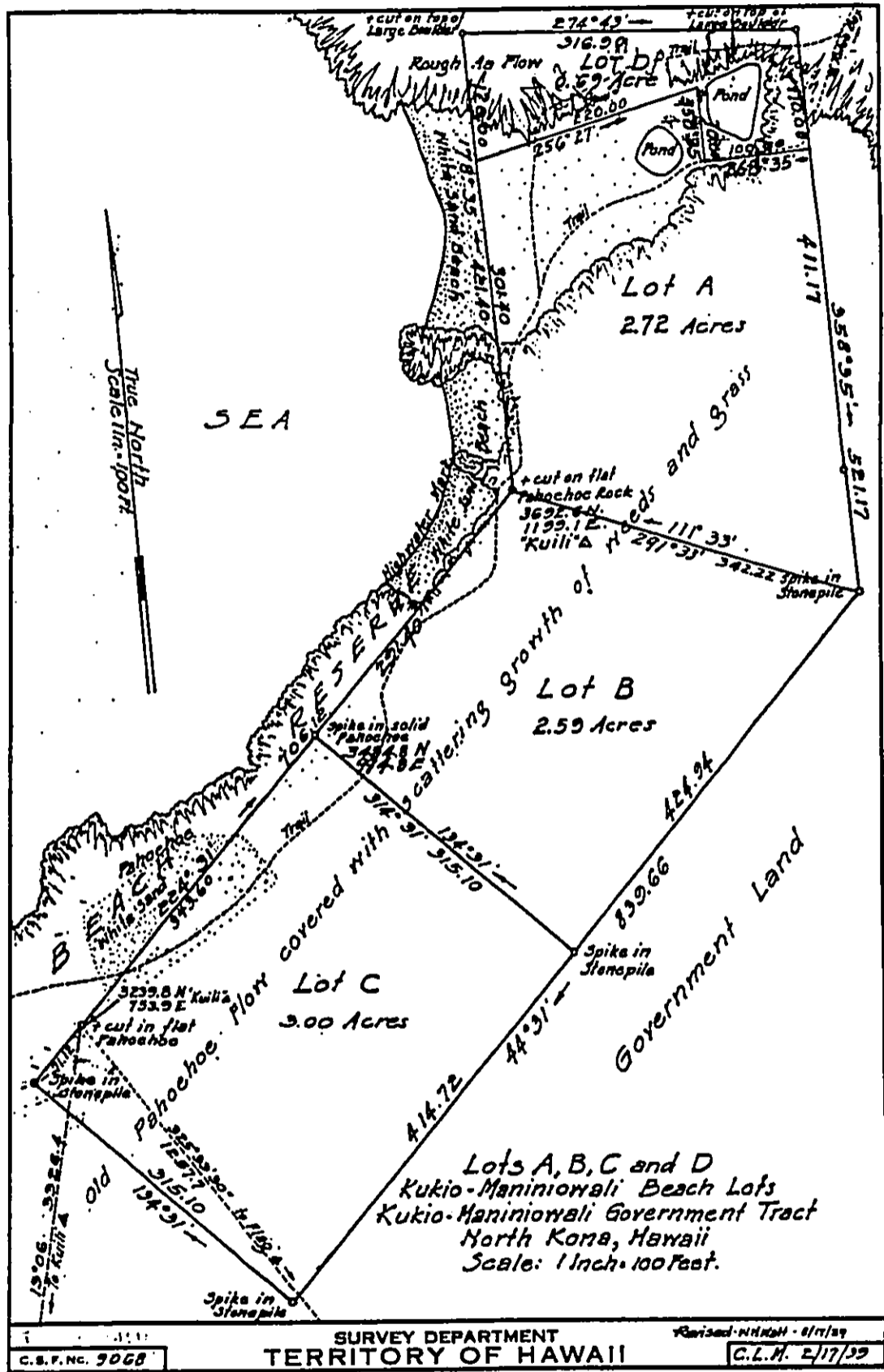


Figure 13. Lots A, D, C, and D Kukio-Maniniowali Beach Lots; Feb. 2, 1939 (Survey Division)

VII. KEKAHA (MAHAI'ULA-KA'ŪPŪLEHU VICINITY): ORAL HISTORY INTERVIEWS

In the preceding chapters of the study, reference has been made to a wide variety of sites and features, many of which are in the park lands. Some of the cited archival resources have been previously reported, and others are presented here in a historical study for the first time. The sites for which documentation has been recorded include: *heiau* and *ko'a* (various ceremonial sites); *ko'a* (deep sea fishing stations); burial sites; house sites (both short- and long-term residences); *hālau wa'a* (canoe sheds); trails; walls and enclosures (both prehistoric and historic); springs and water sources; salt pans; historic residences; and *wahi pana* (storied places of the natural and cultural landscapes). Importantly, the narratives also record detailed, and at times intimate expressions of the significance of the land and resources to the lives, practices, customs, and beliefs of people who were of the land (*kama'āina*).

As would be expected, participants in oral history interviews sometimes have different recollections for the same location or events of a particular period. The differences may be the result of varying values assigned to a history during an interviewees formative years, or they may reflect localized or familial interpretations of the particular history being conveyed. Also, with the passing of many years, sometimes that which was heard from elders during one's childhood 70 or more years ago, may transform into that which the interviewee recalls having actually experienced. It is noted here, that the few differences of recollections raised in the cited interviews are minor. If anything, they help direct us to questions which may be answered through additional archival research, or in some cases, pose questions which may never be answered. The diversity in the stories told, should be seen as something which will enhance interpretive opportunities at Kekaha Kai.

The following chapters of the study present readers with oral historical accounts of individuals who lived upon the land in, or neighboring Kekaha Kai State Park from ca. 1917 to the 1960s. These stories provide modern visitors to Kekaha with a glimpse into the lives, practices, and *aloha nui* (great love and respect) which the *mamo o ka 'āina kaha* (descendants of the *kaha* lands) have for this region.

Basic Methodology

The oral historical component of this study was conducted in an effort to gather legendary and historical narratives from knowledgeable individuals, familiar with the lands, cultural resources, and families of the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, Kūki'o, Ka'ūpūlehu, and the *'āina kaha* (Kaha lands—Kekaha) of North Kona, Hawai'i. Some of the interview documentation was recorded by the author prior to initiation of the present study (generally between late 1995 and early 1997). Additional interviews were conducted between November 1997 to February 1998 in follow-up with individuals who were previously interviewed, and with other individuals recommended as knowledgeable about the history of the area.

Oral historical studies of this nature seek to record information pertaining: to land-use; traditional sites; cultural practices; and to record traditional values, experiences, and events in the lives of both native Hawaiian residents and other individuals with several generations of residency in the lands of the study area. In the particular case of this study, the interviews were conducted to record knowledge about the coastal region of the *ahupua'a* now incorporated into Kekaha Kai State Park; and to record concerns and recommendations for long-term protection of the cultural and natural resources of the park lands.

Importantly, the interviews cited in this study, demonstrate that traditions of the land have been handed down through time, from generation to generation. They also provide both present and future

generations with an opportunity to understand the relationships—cultural attachment—shared between people and their natural and cultural environments.

Readers are asked to keep in mind, that while this component of the study records a depth of cultural and historical knowledge of the *‘āina kaha*, this record is incomplete. In the process of conducting oral history interviews, it is impossible to record all the knowledge or information that the interviewees possess. Thus, the records provide us with only a glimpse into the stories being told, and of the lives of the participants. The author/interviewer has made every effort to accurately relay the recollections, thoughts and recommendations of the people who shared their *mo‘olelo pono‘i* (personal histories) in this study.

Identifying Interviewees and Collection of Interviews

The oral history interviews were conducted in two periods: (1) late 1995 to mid 1997 as a part of various work completed by the author; and (2) November 8, 1997 to February 4, 1998, specifically for the present study.

In seeking out interviewees, the author looked for individuals who met several qualifications, including, but not limited to:

- a. The potential interviewee's genealogical ties to lands of the study area—i.e., descent from families recorded as having early to mid 1800s residency ties to the land, or individuals descended from recipients of Land Grants from the Kingdom or Territory of Hawai'i (ca. 1880s to 1930s);
- b. Age. Having identified an individual's tie to the land, it was believed that the older the informant, the more likely the individual would be to have had personal communications or first-hand experiences with even older, now deceased native residents; and
- c. An individual's credibility in the community as being someone possessing specific knowledge of lore or historical wisdom pertaining to the lands, families, practices, and land use activities in the study area.

The primary focus of the interviews was to elicit traditional information (i.e. knowledge handed down in families from generation to generation), and to document traditional values and practices that are still retained in the lives of Hawaiian families associated with the lands of the study area. The interviews were also to seek out information on other sites or features identified by the interviewees as being associated with families and cultural practices, and to collect information so as to form an overview of community concerns and recommendations for long-term protection of the various resources of Kekaha Kai State Park. During the course of conducting the interviews, a few interview maps were referred to, and when appropriate, site names or locations were marked on the maps. *Figure 14* (at the end of this study) is an annotated interview map, including approximate locations of place names, natural features, and trails as recorded in the oral history interviews conducted for this study.

In order to facilitate collection of oral historical data, lists of basic interview questions were developed in conjunction with studies being conducted (*Figure 15*). As various potential interviewees were contacted, they were told about the nature of the studies being undertaken, and asked if they had knowledge of traditional sites or practices associated with Kekaha, and if they would be willing to share their knowledge. The general interview questionnaire was sent to the interviewees prior to meeting in order to allow them time to think about the land and their recollections. In total, interview narratives from fifteen individuals (aged 46 to 83) are included in this study.

Question Outline for Kekaha-kai Oral History Interviews
Lands of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'owali, and Kūki'o

The following questions are meant to provide a basic format for the oral history interviews. The interviewee's personal knowledge and experiences will provide direction for the formulation of other detailed questions, determine the need for site visits, and/or other forms of documentation which may be necessary.

Interviewee-Family Background:

Name: _____ and other family background information...

- Additional family background pertinent to the Mahai'ula-Kūki'o-Kekaha study area — e.g., generations of family residency in area... (time period)?
- Kinds of information learned/activities participated in, and how learned...?

Detailed Information:

- Naming of the *ahupua'a*, and features (e.g., *pu'u*, *'āina pele*, *kipuka*, *lua wai*, *kahakai*, *ko'a kai*...) that are of particular significance in the history of the land and native residents ...?
 - Kolomikimiki
 - Lae o Kāwili (surfing?)
 - Keawehala
 - Pōhakuolama (Pōhakuwahine)
 - Ka'elehuluhulu (salt works, *hālau wa'a*, wall and platform in *kiawe*, burial platforms, pens or enclosures...)
 - Lae o 'Umi...
- *Heiau*—Ceremonial sites or practices? — land based *ko'a* (cross *ahupua'a*) — ocean based *ko'a*; locations and types of fish? (e.g., *kū'ula*, *'ilina*...)? Names of *heiau* and *ko'a* etc.?
- Burial sites, practices, beliefs, and areas or sites of concern (ancient unmarked, historic marked/unmarked, family)...? The Mahai'ula cemetery — representing who and when interred — wall built around site when...?
- Fishing, fishponds, and salt making resources — describe practices, where occurred, and types of fish...? (ponds at Kaulana-Ka'elehuluhulu, Keawehala, Kāwili, Makalawena, Awake'e, Kūki'o etc.?)
- Agricultural activities — sites and practices (where and what kind of crops)...?
- Water resources?
- Gathering plant materials or traditional accesses? (what was growing in coastal region during youth? was the *kiawe* present?)
- Shore line and *mauka-makai* trail accesses?
Trails on 1801 lava flows (occurrence of dozer work on road ways)?
- Petroglyphs—family names known...?

These are names or words that can be read in the stone: KAMAI or KAWAI; KAUI; KAWIK; ALOHAMAIKAI OEEKA... [letters are obscured]; ALOHAAI; T. NAAPUELUA; LUAHIN...; ELI KAULAHAO; KUALIILII (or M. HALIILII); KAHOLI.OPIO; KAONOHI; KUEMAKA; KEUN...; OKA; HAKUAI; K MAKIKILOLO; LIPILII; HOINO; ALOHAOEHANO; LEIAU; M WELA; KAPE; LUHIA; KALA; AKA AW.

Figure 15. Kekaha Kai State Park Oral History Questionnaire Outline

- Village or house sites – church – stores – community activities — Names of native and resident families...?
 - e.g., Māhele Claimants: at Kaulana–Naia, Kaneiakama, Kealaiki, Kialoa, Pookoai mā (with Napala, Kahoopii, Puluole, and K. Punohu); at Mahai'ula–Kaa and Wanaoa (also written Wana); at Makalawena–Opunui.
 - Individuals who testified in support of the *kuleana* claims: Kupaaiku, Kilohi, Makaulii, Namilo, Kalaau, Hao, Paoo, Kalimakua, Kaaikaula, Apolo, Kama, and Kalio.
 - (records of the period between 1848-1850 identify 24 individuals as being associated with the area)
- Who were the other families that came to collect area resources, and protocol?
- Relationships with neighboring *ahupua'a* and residence locations (e.g., Kalaoa, Ka'ūpūlehu...)?
- Ranching activities...?
- Any knowledge about ship wrecks – the *Maui* 1917; the *Kalae* c. 1927; the *Nowelo* 1943 (washed ashore in 1946 *tsunami*)?
- Affects of *tsunami* on coastline
- Ka'elemakule family residence and activities?
- Magoon family residence and activities?
 - stacked rock wall behind *pu'uone*, parallel to the shoreline; boat ramp function; tennis court...?
- How were residences accessed – Makalawena trail, canoe, boat...?
- Do you have any early photographs of the area?
- Comments on caring for Hawaiian cultural resources and changes to the cultural and natural landscapes...?
- Do you have some particular areas of concern or recommendations—cultural resources and site protection needs—regarding development of the Kekaha-kai State Park?

cf. HiKe10QA.doc
(compiled by KM with MY, CC, AC)

Figure 15. Kekaha Kai State Park Oral History Questionnaire Outline (cont'd.)

Following completion of typing the draft interview transcripts, the were given their transcripts to review and make notes, comments, and/or corrections as they found necessary. Follow-up meetings between the interviewees and the author then took place, during which time interviewees made generally minor clarifications, or added further details to particular narratives (see dated transcript notes in the released interview transcripts). Upon completion of the transcript review process, all of the primary interview participants signed a "Personal Release of Interview Records" form, or otherwise granted the author permission to share their narratives with the public (*Appendix A*).

Data Repository and Access

Each of the interviewees received copies of their individual transcripts, and a copy of the full report on the historical-archival and oral historical study for Kekaha Kai State Park. With the exception of those interview records with restrictions (see Personal Release of Interview Records in *Appendix A*), the released interview, copies of the tapes, and photographs will be curated for reference use in the collections of: DLNR-DSP; Kepā Maly (*Kumu Pono Associates*, Hilo); and the Kona Historical Society.

In regards to the release of interview documentation, it is noted here that during the November 8, 1997 interview at the Magoon Beach House at Mahai'ula. DLNR-SHPD video technician, Clifford Inn, recorded the proceedings on video camera. That video record is housed in the *closed collections* of DLNR-DSP (Honolulu), and *Kumu Pono Associates* (Hilo) and is restricted. The tape has not been edited and released for public viewing. The interviewees and their families withhold authorization to use of the tape until such time as it is granted in writing (following editing and interviewee review).

Overview of Selected Information

Discussed in the Oral History Interviews

Pertinent excerpts of previously collected interviews and the complete interview transcripts collected as a part of this study, are presented below, in *Section VIII. Table 3* below, provides readers with an overview of selected information of cultural and historical importance recorded in the interviews (interviewees cited in alphabetical order). It should be noted, that *the primary long-term protection and management recommendations* made by interview participants are outlined in detail at the *Executive Summary* of this study. This was done at the request of the interviewees, because they wanted their concerns about important cultural and natural resources to be among the first records seen in this document.

Table 3. Overview of References to Sites and Practices Discussed by Interviewees

<i>Interviewee</i>	VA	KH	LKC	GK	DK	CKP	TMD	AM	JM	RPM	HS	OPs
Sites and/or Practices:												
Describes cultural attachment (aloha) of native families to land and place names	X	X	X	X	X	X	X	X	X	X	X	X
Knowledge of pre 20 th century traditions of the land	X	X		X	X	X		X	X		X	
Describes relation between coastal and upland families and resource management	X	X	X	X	X	X		X	X	X	X	X
Describes fishery resources and collection practices	X	X	X	X	X	X	X	X	X	X	X	X
Associates fisheries with on-land triangulation references	X	X		X	X	X		X	X		X	X
Discusses native burial sites (Kolomikimiki and others)	X	X	X	X	X	X	X	X	X		X	
Has knowledge of Pōhakuolama; and/or other ceremonial sites within park lands	X	X	X	X	X	X	X	X	X	X	X	
Ka'elehuluhulu salt works (and other locations)	X	X	X	X	X	X	X	X	X		X	
Discusses historic residents and regional cross-ahupua'a travel	X	X	X	X	X	X	X	X	X	X	X	X
Knowledge of historic residences: Ka'elemakule House	X		X				X					
Magoon House	X	X		X			X				X	
Describes sites and features in the vicinity of the historic residences	X	X	X	X			X					
Place high value on respectful use of natural and cultural resources, and long-term protection of those resources	X	X	X	X	X	X	X	X	X	X	X	X

Initial Key: VA=Valentine Ako; KH=Karin Haleama; LKC=Lei Ka'elemakule-Collins; GK=George Kahananui; DK=David Keākealani; CKP=Caroline Keākealani-Perreira; TMD=Tess Magoon-Dye; AM=Arthur Mahi; JM=Joseph Maka'ai; RPM=Rose Pili-Maeda; HS=Hannah Kihalani Springer; OPs=Other Interview Participants

VIII. KEKĀHI MO'OLELO O NĀ MAMO O KA 'ĀINA KAHA— STORIES FROM DESCENDANTS OF THE KAHA LANDS

Valentine K. Ako
Excerpts from and Oral History Interview
January 8, 1996—with Kepō Maly

Valentine K. Ako (uncle Val) was born at Hōlualoa, North Kona, in 1926. He is descended from families with many generations of residency in North Kona. On the paternal side of his family, he is descended from the Ka'iliuaua-Napu'upahe'e lines, and on his maternal side, he is descended from the Kanoholani Kai'amakini line. Additionally, the family has many interrelations to the families of Kona, tying them to many of the *ahupua'a* of the region.

Uncle Val spent a great deal of time with his *kūpuna*, and together, they fished and gathered salt between Keauhou to Kīholo. He was taught about the *ko'a* (fishing stations and triangulation marks), and various resources of the land that were, and remain important to the natives of Kona. Uncle gave his release of this portion of the interview record on May 21, 1996—It is noted here, that “No portion of the interview may be published, in whole or in part, without prior consent from Valentine Ako.”



Valentine K. Ako — On the Beach at Mahai'ula; the old
Ka'elemakule house in the background

- VA: ...Over here a Ka'ulupūlehu, only had Hawaiians. And later on we had Filipinos, fishermen who married into Hawaiian yeah. And are we going to Mahai'ula? Would we have access to Mahai'ula?
- KM: Too hard. We can get down close but we can't get to the old house, because the walk would be very, very bad.
- VA: Okay, okay. When you go back down Mahai'ula someday, you walk down the beach in the, right in front of the big house, there's a *pōhaku* [stone] there and that is the one they call the “Pōhaku Wahine” [also known by the name “Pōhaku-o-Lama”]. When it's unwell, the water is red. I don't know if today it's still the same way, but before every month.
- KM: So it's in...really it's following a cycle like *ma'i wahine*? [a woman's menstrual cycle]
- VA: Yeah, yeah. And there's a legend to that you know and I'm...myself, I was inquisitive, so I went over there and I dove all around hoping I would find *namako*, [a Japanese term for the sea cucumber, or Hawaiian *loli*], you know the *namako* turn purple eh; there was no,

- no indication of any what you call the, *loli* or whatever. There was nothing. So
- KM: And every month would turn red the water around that Pōhaku Wahine?
- VA: Yeah, yeah, yeah. And then if you go down further to the right where the coconut trees are, the water used to be itchy. Had a lot of glow worms, that's why it comes itchy eh...
- ...Now, you know like in the Mahai'ula area, you say we cannot go down there, but someday you go down there, on the point, if you had the map...okay, that place, it's 'a ā like this here but it has a lot of deep crevices in it and I don't know if anybody today knows that you can catch 'ū'ū and 'upāpalu over there; day time, day time.
- KM: In the crevices.
- VA: In the crevices because it's dark eh. And only few of us knew eh. So that, you better check it out.
- KM: Interesting. So dark in the crevices so the 'ū'ū like dark...
- VA: And the 'upāpalu, you can catch 'em day time...
- ...Some day, you go walk down there, at Kaulana, you'll find these big bowls or basins on the flat *pāhoehoe*, on the ledge, and then you can even go get the salt. And what we used to do, you go scoop 'em out and you throw 'em on top the *pāhoehoe* eh and hot, and then you go collect 'em eh. So you can go right through the summer because down here dry. And the thing is crystal white, beautiful. And the family that used to...you know, up to the oh the 40s, they had this *kupuna* by the name of Annie Punihaole Una, Jack Una was her husband and they used to get their salt all from down here.
- KM: Oh yeah, she lived down Mahai'ula side?
- VA: Yeah. Her husband Una died then she married this old man Alfredo.
- KM: A Filipino man?
- VA: Yeah, and they used to make dried fish eh, dried 'ōpelu. In fact the best dry 'ōpelu came from the old lady Una. And they used to fish for 'ōpelu too yeah. So she was a wonderful Hawaiian lady.
- KM: Was she family to you?
- VA: Yeah, a distant relative.
- KM: Uh-hmm, but they lived down Mahai'ula?
- VA: Mahai'ula. They were taking care of the place for Magoons eh. And these two people you know, I really *aloha*. I mean I was hoping maybe someday, when I come back we go by boat, and go down there.
- KM: Well when we go down to Kailua, we'll try and drive down to Mahai'ula and see if the road is open. See they're making that a State Park now [Kekaha Kai State Park], yeah. If the road is open we can drive in. Otherwise if it's closed it's too hard for us, it'd be too hard to walk 'cause it's a rough walk yeah. But as a child, you said you came down here, how did you come out here before...?
- VA: We used to walk and fish, or go on the boat and come on shore...
- KM: ...Since we're sitting here at Mahai'ula [near the Ka'elehuluhulu pond], you had mentioned that...
- VA: Joe Ka'elemakule.
- KM: Was buried here yeah?
- VA: Yeah, yeah, Joe.

- KM: Kolomikimiki, if I recall, is the name of their burial cave, because the old man John Ka'elemakule wrote in the Hawaiian newspaper, about their *'ilina kūpapa 'u* you know, the family burial place there.
- VA: Well John Ka'elemakule was the last body to be put in there. I was young, but I remember them putting the casket on a boat down at Kailua. There were several people that helped. Charley Moku'ōhai; Henry Kamaka, Palakikio's son; my brother Elmer Ako, Rachael Ako, and my father James Ako. The reason that my father was so involved was because he was very close to John Ka'elemakule. So they were the ones that came over with the body eh. And at the same time I think they were able to get Joseph Ka'elemakule's 'urn or whatever from Kalaupapa, so they were the last ones to be buried there. Can we walk out onto the beach, and maybe I can show you that *pōhaku* eh?
- KM: Oh yes. Let me ask if I could one more question while we're on the tape. You were talking about Kuili which is towards the Ka'ulupūlehu-Kūki'o side, the *pu 'u*.
- VA: Yeah.
- KM: And you were telling me something about that, that you know, you had observed, or been told by your *tūtū* that there are *iwi* [burial remains] there.
- VA: Yeah. I'm sure, even today if you walk up there, it's all full of cinders and if you walk up the hill you're bound to come across a lot of the *iwi*.
- KM: So that's Kuili hill?
- VA: Yeah Kuili.
- KM: What do you hope about that place?
- VA: I hope they don't destroy it, not even to take the cinders out of that particular area because it will just destroy what was put there you know.
- KM: And plenty bones there.
- VA: Oh yeah, get loaded. So you know that's the only way we could indicate that must have had a lot Hawaiians in this area and that was their burial ground you know.
- KM: Oh sorry, one other thing, since we're back on this area too. So Kuili is important. Then you were talking about *tūtū* Una, here at Mahai'ula and the difference between *pale* and *hāli 'i* [covers and moisture barriers for *imu* cooking] and that in the Kekaha lands, you would use the *'ākulikuli kai* that's like in this little pond here.
- VA: Yeah. That was, the *hāli 'i* for *kālua* [baking food in the *imu*].
- KM: Out in this kind of place?
- VA: Yeah in this remote area. Because we didn't have, you know, *lā 'i* over here, or banana. So they used this for the *hāli 'i*.
- KM: *'Ākulikuli kai*?
- VA: Yeah *'ākulikuli kai*, put it on the top and the bottom.
- KM: And let's see, what's the difference? There's a difference between the word *hāli 'i* and *pale*?
- VA: Yeah. In Kaua'i that's what we used, *pale*. Over here we say *hāli 'i* eh. Anyway you know if you were to translate it it's sheet or covering yeah. Yeah. Kaua'i we say *pale* but over here it's *hāli 'i*. So you know when Una them used to *kālua* pig, they used to use this, you know. And they never did use like the Samoans use in coconut branches eh. Una them always used this.
- KM: *'Ākulikuli kai*.

- VA: *'Ākulikuli kai.* And you know they make good *hāli'i*. Because get plenty water eh. And the smell is good when it comes out eh.
- KM: Oh good, thank you. I just wanted to come to that before I forgot, and since we were sitting in this place you know. So we go out look at the okay.

In front of the parking area, facing towards Mahai'ula bay, are two sections of filled ponds. Rock alignments are still visible, Uncle Val thinks that he remembers these having been small fish or *'ōpae'ula* ponds when he was a child. The ponds are now mostly filled in with debris from trees growing over them. Uncle Val also observed:

Jack Una was caretaker down here, and he had a *kā'ula* that he took care of. When he would go down to the shore and call the *akule*, they would all come in the bay, right up to the shore in front of the house. Una kept his canoes right on the shore near the Ka'elemakule-Magoon houses. He would dry his *'ōpelu* on the hot *pāhoehoe* near the Keawehala shore side. Those days, there was no problem with flies; Kiholo always had flies because there were plenty goats down there.

One other thing I remember though, is that they had *lapu* (ghosts or spirits) in this place. If you were family it was okay, but one time my brother and cousin Keoni took some Japanese guys to go fishing. They were kind of disrespectful, take any kind and not use what they took. When my brother and cousin went to Makalawena one night, the Japanese guys stayed back at Mahai'ula. When my brother them came back, the Japanese guys were all huddled around the fire by the house, terrified, the *lapu* had been all around making noise and stuff. Those guys never went back again (pers comm. January 8, 1996).

Violet Lei (Ku'uleikeonaona) Lincoln-Ka'elemakule Collins, Informal Oral History Interviews with Kepā Maly March 5, April 9, and May 23, 1996; at Huihe'e Palace, Hōlualoa, and Kahalu'u

Aunty Ku'uleikeonaona (Lei) Collins was born in 1913, at Ke'ei, South Kona. Her father George Kawaiho'olana Lincoln was an heir to the Lincoln family lands at Keawewai-Kawaihae-uka, Kohala. Aunty Lei's mother was Jane Kalikokalani Hāili-Lincoln, a descendant of the Keanu-Hāili families of Ke'ei, South Kona. Grandpa Keanu was at one time a land overseer for Princess Pauahi Bishop.



Lei Lincoln-Ka'elemakule Collins, with her son and daughter-in-law; John and Connie Ka'elemakule Collins (at Ka'elemakule's Mahai'ula home)

It was also in the 1920s that Aunty Lei became familiar with John Ka'elemakule Sr. and his family. One of her cousins had married into the Ka'elemakule family, and she spent a great deal of time with "Papa Ka'elemakule." She has many fond memories of Kailua and working at the John

Ka'elemakule Store at Kaiakeakua (across the road from the present-day King Kamehameha Hotel). In 1929, Aunty Lei married Joseph Ka'ōnohiokalā Ka'elemakule, who was born in 1909, and it was in this way that she came to be familiar with the lands of Kaulana and Mahai'ula. The narratives below were released for a historical study on May 23, 1996.

Aunty Lei and Kepā — Discussion of how Papa Ka'elemakule was named and who his family was:

KM: The elder John Ka'elemakule was born in 1854 at Kaumalumu, and his mother was a descendant of the Kinimaka line (cf. *Ka Hōkū o Hawai'i*, May 29, 1928:2, c1,2). He was born when Kinimaka was in Kona, living at Makapiko, Kaumalumu, supervising construction of the road, now called Judd Trail.

LC: Papa Ka'elemakule was a very good man, well respected. In the early years when he opened his store at Kaiakeakua, he was primarily handling the 'ōpelu and akule markets, he had many canoes and fishermen from the district fishing for him. One of his canoe makers was Charlie Moku'ōhai of Honokua and Ke'ei, South Kona. The shoreline in front of Kamakahonu-Kaiakeakua was always covered with the fishing canoes. I remember, too, that out on the coast, in the vicinity of Maka'eo (now the old airport area) and at Mahai'ula, Papa and the fishermen would collect the 'ōpae 'ula as bait for the 'ōpelu. As business picked up, Papa began bringing other items into the store to supply the needs of the townspeople. Papa ran all his business in the store in Hawaiian. The drummers, or sales men that came selling their goods even had to learn enough Hawaiian to do business with him. But they did it...

I married Joe Ka'elemakule, Papa's second son in 1929. His mother was a Kauha'ihao. But Joe died in 1934. Papa had really taken to me, and by that time he had already entrusted me to take care of matters for the family lands. Papa also told me that "We are to take care of the graves, and that the *iwi* are to remain where they are." Papa was always telling me how important it was to respect the Hawaiian places. It grieved me so when Mahai'ula was sold. While he was alive, Papa always made sure that the gravesites were cared for.

Papa died in 1935, and in the last years of his life he really started getting concerned about all the development that was starting to take place down along the shore in the Kailua area. The family had about 25 graves down on the shore, sort of across from the Catholic Church, Keauhou side of Hale Hālāwai, the old Court House (now in the vicinity of the Jolly Roger restaurant). Papa told me that when he died he wanted to be buried in the family cave at Mahai'ula. He also told me that when he died, I was to have all the graves on that property taken up and moved to Mahai'ula with him. His mother, two wives, and other old family members had all been buried there. Within three nights of when Papa died, I had all the graves opened and the burials all put in *koa* boxes and prepared for the trip to Mahai'ula. Charlie Moku'ōhai made the boxes, and had us do all the work in the nighttime. When everything was ready, Moku'ōhai had us go in canoes, before sunrise, to Mahai'ula. All of the old burials were placed in the cave (Kolomikimiki), and then we placed Papa's burial in last. This is what he wanted—he said his burial was to be the last one at Mahai'ula. So that's how it is. Mahai'ula was the land of his *kūpuna*, and it meant a great deal to him. It was the place where they were buried, as well.

Charlie Moku'ōhai oversaw the process of removing and reintering the graves. Several other people helped. Among them were Solomon Ka'elemakule, James Ako and a few others, and myself. Recently, we have recorded our interest that the burial site at Mahai'ula be protected and preserved in perpetuity...

Arthur (Aka) M. Mahi, at Hāmanamana
 Oral History Interview with Kepā Maly
 April 23, 1996

Uncle Arthur Mahi was born at Laupāhoehoe, North Hilo, on July 5, 1933, and is pure Hawaiian. His father, Mikeele Mahi, was a descendant of the royal line of Mahi, and was a native of Waipi'o. His mother, Lily Kahuawai Keau Kuakahela, was a native of North Kona, who was raised at Hale'ohi'u and Ka-lā-'oa (the family's traditional pronunciation of the name of Kalaoa).



Arthur and Theresa Mahi – at Hāmanamana

The maternal side of uncle Arthur's family has lived in the Kekaha region for generations. During the governorship of Kuakini (c. 1830-1840), his great grandfather was konohiki of Ka'ūpūlehu. Raised by his grandfather, Keau Kuakahela, uncle Arthur traveled throughout the land of Kekaha. The excerpts below, from an interview with uncle Arthur, share some of his experiences in the area of Mahai'ula-Ka'ūpūlehu (the interview was released – July 9, 1996).

[Speaking of the 1800-1801 lava flows and the fishpond, Pa'aiea; and going to the shore with his *kūpuna*]

KM: Do you remember hearing you *kūpuna kāne* or any of the other *kūpuna*, did they tell you about some of the story about how Pele went down? And was there a big fishpond *makai* too, that you heard about at one time?

AM: Yeah, there was all fishpond across there. It's about...*mauka* side from the ocean, about 50 feet away from the ocean. It used to be all land *makai* side, and water in between see.

KM: So it was a big fishpond?

AM: Yeah. But, you can see some place, the fishpond is still there, but all '*oki* [cut] from the...what you call, the volcano came across.

KM: Yes. When you were young, you used to go *makai*?

AM: Yeah, we go over there, Ka'ūpūlehu and Kūki'o, and Mahai'ula.

KM: What kinds of things did you do when you were young down there?

AM: Fishing, we play most of the time [chuckles]. And then my grandfather go fishing over there. His cousin Una was staying over there.

KM: Oh, at Mahai'ula?

AM: No, it was after that, at Mahai'ula.

KM: Oh, so was Una living some where else before Mahai'ula?

AM: Yeah, yeah. By this side, Kūki'o...

KM: Did you folks stay with some of the families down there before?

AM: Yeah, the Unas them.

KM: That was Annie Una, married...?

AM: Yeah she married my grand uncle Jack Una. And then after that, they moved over to Mahai'ula in the early 40s, to take care of the Magoon's place...

KM: How did you folks get down to the ocean down at Ka'ūpūlehu or Kūki'o, Makalawena, like that?

AM: Get the old *mauka-makai* trail.

KM: Still had the trail?

AM: Yeah, right there [pointing to the Hale'ohi'u side of his house], go down this side and go over to Kūki'o.

KM: I see. So, next door to us is Hale'ohi'u?

AM: Yeah, but between Hale'ohi'u and Hāmanamana, there's a Government Road that goes all the way down to the beach.

KM: And you would walk or ride?

AM: We walk, and we put all our stuff on the donkey.

KM: I see. And so you would get down to Kūki'o, and then you would walk along the *ala loa* [main island trail]?

AM: Yeah, yeah. You can go straight to Kūki'o. There's no trees and there's all open rocks, and you just head for straight where you want to go. And the donkey, you just lead the donkey along.

KM: Along the ocean, was there a trail that you followed some times?

AM: Yeah, there's only people trails. Some times they make their own, some times you make your own trail. The trail is usually from one house to another, but from one place to another, is more *mauka* side, it's kind of far away from the water.

KM: I see. How about the *ala loa*?

AM: The *ala loa*, well it was over there, it's kind of far away too. When we go near the ocean...well when you hungry, you see some 'ōpihi, like that, you pick up and eat, and then you keep on going. And you can fish at the same time if you hungry. But you go way inside land when you hungry [gestures with hand, nothing].

KM: [chuckles] *Pololi ka ōpū, 'ai ka pōhaku* [when the stomach is hungry, eat the stones]?

AM: And then some times it's real hot, so we take a dip in the ocean, nice place, jump in the ocean, and get up and keep on walking. So, when we get real hot and dry, we jump in the ocean again, until we reach where we going...

Excerpts from an Oral History Interview of December 7, 1996
Val K. Ako, Margie Kaholo-Kailianu, David Keākealani¹, Rose Pilipi-Maeda,
Arthur "Ako" Mahi, Joe Maka'ai, Caroline Keākealani-Perreira, and family
members—with Kepā Maly

Overview of Interviewees (those not previously identified):

Joseph Pu'ipu'i "Wainuke" Maka'ai

Joseph Pu'ipu'i Maka'ai affectionately called Wainuke, was born in 1917 at Pu'uanahulu. Shortly after his birth he was given to his *kūpuna* Kahiko^(w), and her husband Mahikō^(k), as a *keiki hānai* (adopted child). For the first eleven years of his life, Uncle was raised at Kahuwai, the coastal village of Ka'ūpūlehu. It was from his *kūpuna* that he learned about the customs and practices of the native families of Kekaha.

**David Ka'ōnohi Keākealani
and Caroline Kiniha'a Keākealani-Perreira**

David Ka'ōnohi Keākealani (born at Pu'uanahulu in 1915) and Caroline Kiniha'a Keākealani-Perreira (born at Pu'uanahulu in 1919); were the children of Keākealani Kuehu (in their father's generation, this branch of the family took Keākealani as its surname), and mother was Keola Na'aho. Tūtū Ka'ōnohi lived at Keawaiki, Ka'ūpūlehu, and Pu'uanahulu. By the time he was a teenager, he was working for the Hui (Hind Ranch) and traveled throughout the lands of the Kekaha region. Shortly after birth, Tūtū Kiniha'a was taken to the shore of Ka'ūpūlehu where she resided with her grandparents Kahiko^(w) and Mahikō^(k), and her cousin Wainuke (Joe Maka'ai) until around 1928.

In those earlier years, these *kūpuna* traveled throughout the Kekaha District learned the many of the customs and practices of its native people. Tūtū Ka'ōnohi, Tūtū Wainuke, and Tūtū Kiniha'a are the last of their family members to have been raised along the shores of Kekaha with their *kūpuna*, who were native descendants of the residents of the Ka'ūpūlehu-Makalawena and larger Kekaha region.

Rose Pilipi-Maeda

Rose Pilipi-Maeda was born in 1919, and raised by her Tūtū Daniel Kinoulu at Pu'ukala. As a child, Aunty Rose would regularly travel with her Tūtū to the coastal region of Kekaha to visit their family and fish. They regularly stayed at Ka'ūpūlehu with Mahikō, Kahiko and their *keiki hānai*.

Marjorie U'ilani Kaholo-Kailianu

Aunty Marjorie (Margie) was born at Pu'uanahulu in 1926. Her mother, Lizzie Alapa'i was a native of the land of Pu'uanahulu, her father Joseph "Sonny" Kaholo, was born at Kamā'oa, Ka'ū. As a child, Aunty Margie and her siblings lived with several of their *kūpuna*, and it was with the elders and their parents, that they regularly traveled along the coast between Kapalaoa and Ka'ūpūlehu. Like the other *kūpuna* participating in the oral history interviews cited in this study, she was taught how important it is to respect both the land and ocean. She shares recollections of the customs and practices of the families of Kekaha.

[Describing their travels along the shore of Kekaha, and some of the families that they visited]:

JM: We all go over there.

CK-P: All over.

JM: That's all the Hawaiian people, we got to go over there meet them.

¹ Uncle David's daughters Lehua Kihe, Lanihau Akau, Keala Tagavilla, and Maile Rapoza accompanied him to the interview. Additionally, his niece Shirley Keākealani and grand-niece Ku'ulei sat in on the interview.



*Back Row: Rose Pilipi-Maeda, Mo'opuna Kailianu; Lehua, Keala, Lanihau, Maile.
Center Row: Shirley Keākealani, Margie Kaholo-Kailianu, Caroline Kiniha'a Keākealani-Perreira, David Ka'ōnohi Keākealani, Joseph Pu'ipu'i "Wainuke" Maka'ai, Arthur M. Mahi.
Front Row: Kepā Maly and Ku'u lei Keākealani.*

- KM: Some 'ohana [family]?
- JM: Plenty 'ohana. Come from Pu'uana'hulu, come from Kalaoa, here. And the Stillmans used to own Kūki'o.
- AM: Yeah, Kūki'o.
- JM: That's the only private area.
- KM: Ahh, in your time?
- JM: Yeah. Nobody...
- CK-P: Nobody allowed to go over there, taboo.
- AM: The old man Una.
- RM: Yeah, he took care of the place.
- KM: Can not even go fish?
- AM: Hu'ehu'e Ranch.
- JM: You can fish, but you got to go out, you can not come in.
- KM: So it was like *Konohiki* [land overseer for the chiefs], they kept the *kapu*?
- JM: Until today, they still have that law, you know...you can chase everybody away from your property.
- KM: So no one was living at Kūki'o when you folks were children?
- JM: Well, Kūki'o is a private place, that belonged to [Maguire family, Helene Maguire married Arthur Stillman Maguire... [Uncle Joe and Thelma Stillman-Springer were class mates at Kalaoa School.]

KM: Now, if you go past Kūki'o...They didn't really have too many families living down there? Stillman *mā* [folks] would come down?

JM: Yeah.

KM: And did Uncle Jack Una take care of that place?

AM: Yeah.

JM: Well that's...he was the caretaker for that. And that man strict, you know. You no can go bypass him [laughs]. He tell you, "You walk inside the water."

Group: [laughs]

JM: Strict. That's why, those days, all the haoles, they like that kind old Hawaiian, they were strict. Today kind Hawaiian, ahh, "You take care my land." As soon as that *haole* go, *pau*...

Group: [laughs]

CK-P: Everybody come in.

JM: In those days, no! You no can pass the land.

KM: How about Makalawena? Did families live down there in your time?

JM: Well, my time, that's where we used to...all *kahakai* [shore side] eh? That's where we used to go to school.

CK-P: Yeah. [chuckles]

KM: Makalawena?

JM: You know, the English school.

KM: *Makai*?

JM: Yeah, *makai*.

KM: Where is that school now?

CK-P: *Pau!*

JM: That place is no more.

AM: Had church over there too.

KM: The church was moved eh?

JM: Yeah.

KM: The church is the one went move *mauka*?

JM: Yeah.

CK-P: Yeah.

AM: Mauna Ziona.

KM: Mauna Ziona, in Kalaoa?

JM: Yeah in Kalaoa.

CK-P: Mauna Ziona [chuckles].

JM: Because Makalawena used to be the main bay, just like Kailua.

KM: Ohh!

JM: Where all the boats come and all the stores too eh.

RM: Ohh!

JM: Ka'ūpūlehu, Kūki'o, and all that, we all go over there, Makalawena. Bumbye, Makalawena all *pau*, we got to ride the donkey go up Kalaoa, buy all the...

CK-P: [laughs]

JM: ...We bring our *ōpelu* up and then we bring the *kaukau*.

RM: We bring the *kaukau* down.

CK-P: After we sell the *ōpelu*, the money, we go buy *kaukau* for take back, all on the donkey.

RM: Either that, or we just exchange.

KM: And did Tūtū them...did you folks have family, like after you get to Makalawena, then you go to Mahai'ula? Did some families live down there too?

JM: Mahai'ula, yeah.

CK-P: Yeah, get.

JM: Until this...I forget who this *haole*...

AM: Magoon.

CK-P: Magoon, them.

JM: Then, off limits.

KM: So after Papa John Ka'elemakule, eh...?

JM: Yeah.

CK-P: Uh-hmm.

JM: Ka'elemakule was the first Hawaiian [store keeper]...

CK-P: And he get a store.

JM: Yeah, he built a store in Kailua, [speaking to his cousins] you remember, by that turn, that store.

CK-P: Right by that turn.

MK: Ah Lap Store [also called Fong Lap Store]?

JM: No, no, not Ah Lap, the Ka'elemakule Store. Ka'elemakule, and then AmFac.

CK-P: Yeah.

MK: Oh, in the front.

KM: [looking at Uncle Val] Not far from your Papa's house, Lihi Kai?

VA: Lihi Kai...

KM: ... [speaking about *wahi pana* (storied places) along the shore of Kekaha]
He mo'o paha ko Luahinewai?
 Is there perhaps a water guardian at Luahinewai?

JM: *'Ōlelo 'ia, mo'o wahine e.*
 It's said, a female deity.

CK-P: *Mo'o wahine.*

KM: *'Oia kou mana'o* [that was your thought] Aunty Margie?

MK: 'Ae [yes].

AM: 'Ae [yes].

CK-P: *Kēlā 'ano wahine...lo 'a ma 'i wahine, a 'ole hiki ke 'au 'au iloko o kēlā wai.*
That nature of woman...when she has her cycle, you can't swim in that water.

JM:/AM: 'Ae [yes].

CK-P: *Kapu [restricted]!*

JM: *Kapu [restricted].*

Group: *Kapu [restricted].*

KM: *Ua 'ōlelo mai o Aunty (Margie), inā 'ike iā 'oe i ka wai, 'ano hā'ula'ula...?*
Aunty Margie said, "If you see the water, is sort of reddish...?"

CK-P: 'Ae [yes].

KM: *Ai no ka ali 'i, ka mo'o iloko.*
The chiefess, the water deity is inside.

JM: 'Ae [yes].

AM: 'Ae [yes].

Group: 'Ae — uh-hmm.

CK-P: *Waiho mai la... [Leave it be.]*

AM: Mahai'ula get too.

KM: Mahai'ula same thing?

JM: Yeah, Mahai'ula.

AM: *Lo 'a kēlā pōhaku malaila.*
There is that stone there.

KM: *A iloko o ke kai e.*
Ahh, in the water yeah.

JM: *Ua 'ike 'oe?*
You saw it?

AM: 'Ae [yes].

KM: *'Ae, ua 'ike wau. Na Uncle Val, ua wehe mai 'oia i ka mo'olelo, kēlā Pōhaku Wahine, iloko o ke kai...*
Yes, I saw it. It was Uncle Val who told me the story about that Pōhaku Wahine, in the water...

AM: *'Ae, inā 'ula'ula ka wai a 'ole hiki iā 'oe ke lu'u...*
Yes, if the water is red, you cannot go dive in...

DK: *Mea mane 'o!*
It's itchy!

JM: *A'ole ki'i ka i'a.*
Don't go get the fish.

- AM: *A'ole ke hele ki'i ka i'a, mane'o.*
Don't go get the fish, it's itchy.
- JM: *Ke 'oe 'ai mane'o paha ['eu ana nā maka].*
If you eat, you get itchy [making rascal eyes].
- Group: [laughs]
- CK-P: *Ma'i kēlā pōhaku ['aka iki ana].*
That stone has a menstrual cycle [chuckling].
- KM: *'Ae. He 'ano kūpua?*
Yes. Its sort of a supernatural (stone)?
- AM: *'Ae [yes].*
- KM: *Pehea, i ka manawa a Tūtū Una mā, ua hele 'oia a lawai'a me kekāhi manō? Ua lohe paha i kekāhi mo'olelo...?*
How about, in the time of Grandpa Una them, did he go fishing with a shark. Did you perhaps hear a story about that...?
- AM: Yeah.
- JM: *'Ae, 'ae, pololei.*
Yes, yes, right.
- CK-P: *'Oia ke alaka'i.*
It was the guide.
- JM: *'Oia ke alaka'i iāia, "A mane'i ka i'a."*
It was his guide, (telling him) "here are the fish."
- CK-P: *Mane'i ka i'a.*
Here are the fish.
- KM: *'Ano kalaiwa, drive 'ia ho'i ka i'a 'oia?*
He sort of drove the fish?
- JM: *'Ae, kēlā manō, maopopo, lawa ka i'a, a 'oia i pekapeku ka wa'a. "Ho'i."*
Yes, that shark, and it knew when there were enough fish, he would tap the canoe, "Go back."
- AM: *'Oia ho'i. [Its so.]*
- CK-P: *Ho'i [go back to shore]!*
- JM: *Nāna no i ho'ihō'i iāia. Ke i uka o ke kai.*
He would go back to shore, landing on the beach.
- AM: *'Ino'ino ke kai.*
(otherwise) The sea would get rough.
- RM: *Mana [power].*
- KM: *So ua 'ike 'oukou kēlā pōhaku?*
So you've seen that stone?

- JM: 'Ae, 'ae. [Yes, yes.]
- KM: *O hoihoi* [So interesting].
- RM: I think *'ohana* [family] that, the *'aumakua* [family guardian god].
- JM: Yeah.
- KM: *O, aloha kēia 'āina o Kekaha.* [Oh, love this land of Kekaha.]
- DK: 'Ae [yes].
- KM: *Aloha kēia 'āina.* [Love this land.]
- CK-P: 'Ae, *kēlā pōhaku, 'aumakua.*
Yes, that stone, is a family guardian.
- JM: 'Aumakua.
- KM: You know, *ho 'omaka ana lākou i hana paka i kai,* making a park *makai?*
You know, they are starting to make a park along the shore, making a park *makai?*
- CK-P: 'Ae [yes].
- KM: All over there, so *pono paha iā kākou e ha'i i ka po'e o ka Aupuni. "E mālama i kēlā pōhaku. Mai ho 'okū ka moku ma kēlā pōhaku."*
...so perhaps it's good for us to tell the State people "Take care of that stone. Don't anchor the boats to that stone."
- JM: Ohh.
- KM: Better we tell them, so they know.
- AM: 'Ae [yes].
- JM: Yeah better tell them.
- KM: So they don't damage that Pōhaku Wahine.
- JM: Yeah...

Excerpts from Additional Interviews with:
 Joeseph Pu'ipu'i "Wainuke" Maka'ai
 State Foundation on Culture and the Arts (c. 1985)
 (transcribed by Kepā Maly—April 4, 1996)

Describing early 20th century residency customs of the native residents of coastal Ka'ūpūlehu, Kūki'o, and Makalawena, uncle recalled:

- JM: ...We didn't spend all of our time down at the beach. We had a farming area several miles *mauka* for all the people who lived down at Ka'ūpūlehu and other beach areas like Kūki'o and Makalawena. This farming area was on a hill called Pu'ukala. There is lava all around the hill, you wouldn't think there would be soil there. But, the dirt there is rich and good for planting all kinds of things. There's a trail from the beach to Pu'ukala, my grandmother would ride the donkey, and the rest of us would walk. We planted taro and pumpkin. The pumpkin grew very well here. We also planted a small Hawaiian-kind pineapple, and sugar cane too. We had *kō kea* and a couple of other varieties of Hawaiian sugar cane. But our main crop was sweet potato. We planted mainly two varieties, a yellow one called *hua moa*, and one with the purple skin called *Hi 'iaka*. Sweet potatoes are good for dry places, they'll grow with just rain water. We planted them in small hills called *pu'e*. This way, they grow big in the soft dirt and they are easy to pull. On the way

down from Pu'ukala, we kids would gather *pili* grass for our *hōlua* slide at the beach. This *hōlua* slide is very old, it was always there as far as I can remember. The old folks used to enjoy watching us too. We spread the *pili* on the *hōlua* and then we would slide down on coconut leaves and my grandmother folks used to clap for us. There wasn't much time for us kids to play around.

On April 27, 1996 uncle Joe participated in an interview at Ka'ūpūlehu with his nephew Larry Kimura and Chuck Langlas; with the Hawaiian recording transcribed by the present author (PHRI Report 1733-043197). The following notes about Makalawena and Kūki'o are paraphrased from the interview:

We traveled to Kūki'o and Makalawena. In those days, Makalawena was the capital of the people along the shore here. That's where we went to shop. There were two Chinese stores there... We often visited Makalawena, going by foot from Ka'ūpūlehu. We would meet the people there, and that's where the school was.

The Stillman sisters and their families used to stay at Kūki'o. They were one family, Maguire and Stillman, it was their land. They would come down during school vacations, and they were so happy here along the shore. There was an *'ōpae* (shrimp) pond there too, like we had at Ka'ūpūlehu. And before, that place was full of people. Annie Una was the last one to live on the land. She took care of that place. She also lived at Makalawena, she was born there. One of the daughters of the Punihaole family. But she used to take care of Kūki'o for the Maguires.

Karin Kawilliau Haleamau

Oral History Interview with Kepā Maly— January 22, 1997

Karin Haleamau (Uncle) was born in 1940, and raised at Hale'ōhi'u. Uncle's family has many ties to the lands of the larger Kekaha region. His mother, Ka'ula Ha'o was from Pu'uanahulu, but was also raised by her *kūpuna* at Kohanaiki, and later, she lived at Pu'ukala. Uncle's father, Herman Haleamau, was from the Hāmanamana-Hale'ōhi'u area. As a youth, Karin was close with his *kūpuna*, often living with them for extended periods of time. It was during those years that the Hawaiian sense of stewardship and caring for the land, ocean, and resources was instilled in him. He was particularly close with his Tūtū Annie Punihaole-Una, and it was while with her, that he walked the length of the Kekaha shoreline, visiting the lands of Kohanaiki, Mahai'ula, Makalawena, Kūki'o, and Ka'ūpūlehu.

In the interview, Uncle Karin describes a number of the native customs which he observed being practiced by his elders. His elders took active roles as stewards of Kekaha, and he observed that while walking through the lands of Kekaha, Tūtū Annie Una would "*mālama*" or take care of the family sites, setting *pōhaku* (stones) that had "*hāne'e*," or fallen down back in place. He also spoke of their making salt, and how they traded resources between inland and shoreward residents. In the times of rough seas, Tūtū would make *imu* (stone mounds) in the shallow waters to trap fish, and when they had more fish than needed, Tūtū would let fish go, stocking the brackish ponds with fish for seasonal use.

KM: So you folks... as a youth, a child, with your old people, you mentioned that you used to go to Mahai'ula?

KH: Mahai'ula.

KM: I think it was Auntie Annie, she was *'ohana*. . . ?

KH: Auntie Una, that's my Tūtū. I used to go there, I used to stay with my brother-in-law, he used to be the care taker for Magoon before.

KM: Oh, who was your brother-in-law?

- KH: Alfredo Gaynor, he's living Lāna'i now, he's about 80-something now; my sister was married to him. I used to go run down there and I used to go Makalawena with my Tūtū Annie. I used to stay there, I wouldn't like to come home. She'd teach me about all the *punawai* [springs or ponds] *makai* and *mauka*. Hoo—they used to *mālama* [take care]!
- KM: So they knew where the water sources were, the *punawai*, and everything was.
- KH: Everything.
- KM: Was Uncle Jack Una still alive in your time, or had he *hā'ule* [passed away] already?
- KH: No, he was still yet. I remember, he was there.
- KM: Out of curiosity, you know, they're looking at the State Park now, at Mahai'ula, as an example.
- KH: Uh-hmm.
- KM: Are there some things that you think should be made sure that they be taken care of? That people don't be disrespectful or *kolohe*, or...? [pauses]
- KH: The most I would think about, is *mauka* [inland] of the [beach] *hale* eh. Behind there, get little bit burial ground. I would like them to preserve that. And even the...I don't know if you went there, they have the big place where they used to dry the water and make salt before [at Kaulana].
- KM: Which one now? If we look at Mahai'ula and the house. . .
- KH: Uh-hmm.
- KM: Has the old house that Ka'elemakule had first.
- KH: Right, right.
- KM: And then the big two-story one.
- KH: Right.
- KM: Now, over on the side, has a *punawai* [spring], where there was the windmill.
- KH: Right, right.
- KM: Where's the salt area that you're talking about?
- KH: Ohh—it's way this side [pointing to Kaulana, on the southern side of the bay].
- KM: Oh, so on the *papa* [flats], on the *pāhoehoe* rock.
- KH: Right, that's another one that they should save. That's where the Hawaiians before, used to *mālama* [take care]. They used to take all that *kai* [salt water], and *malo'o* [dry] over there, and they make *pa'akai* [salt] from that. Yeah, I remember that too. My Tūtū used to go over there make *pa'akai* for us.
- KM: Ahh—so Tūtū Annie would go make *pa'akai* down there?
- KH: Yeah, she used to make that. And you know, when she come Kailua like that she'd give everybody. She used to make all that down there. I was thinking about that place. I hope they *mālama* [take care] that...
- KM: ...Now, they used to go fishing all out there too eh?
- KH: Yeah, like Makalawena, Mahai'ula, and mostly Ka'ūpūlehu side. Between Ka'ūpūlehu and Mahai'ula-Makalawena, that used to be the ground before. I used to go with my Tūtū, oh man, good fishing ground. Hey, I tell you a story, this is a true story [chuckles]. I'd see her, she'd call me, "Boy, *mai, mai, kōkua iā Tūtū*" [Boy come, come, help Grandma]. I go over there, and I tell, "Oh, I small yet." "Push, push." So I push the

canoe inside the water. So I tell "Okay Tūtū, you going?" "*Kali mai*" [wait]. Bumbye, you hear here *kahea* [chant, call out]. And she grab the *kai* [salt water] and she'd stay on top the boat [gestures, sprinkling salt water around the boat], you know. I looked out, and I never think of that kind stuff, gee. She'd go, not even 100 feet out, she *ho'omākaukau* all her stuff, ohh—come home. *piha* [full] the canoe, all *i'a* [fish]. '*Ōpelu*. Then she'd tell me "Boy, '*apōpō* now, '*o 'oe, kōkua no Tūtū* eh, *kahe* all this and *kaula'i*" [Boy, tomorrow, now, you help Grandma, cut all this and dry 'um]. "Okay Tūtū." Hey I tell her, "Ohh—'*ōpelu loa*" [so much '*ōpelu*]. Too good. I remember that. Good luck.

- KM: So Tūtū would *kahea*, call out?
- KH: Yeah.
- KM: But she wet the whole canoe. sprinkle water around, *pi kai* eh.
- KH: And then she'd go.
- KM: Did you ever see a *manō* [shark] out there with them?
- KH: Well, I didn't see the *manō*, but I seen a lot that swims around, but never seen one *manō* near her. Only I seen the *i'a* [fish] that she used to bring in. But I knew already, she knew what she was doing...
- KM: ... For a while, your Kūkū, and you, stayed down Makalawena too yeah?
- KH: Yeah I stayed there.
- KM: Were you the last family, your Tūtū them, were the last family there already?
- KH: Yeah, Tūtū Annie was the last.
- KM: You were the only ones eh.
- KH: Yeah. And when she died, I was the only one that. . .In fact, I was the only one. me and my sister, but I spent more time with her, I was the only one. But she had *pu'a* [pigs], she had everything.
- KM: So she had *pu'a* [pigs] down there. She knew all the water holes, you said, the *punawai*.
- KH: Every *pu'a* [pig] had name. And she know which one. the *pu'a* used to come underneath the *hale* [house] at night time. And she's talking to the *pu'a*, all in Hawaiian, telling them go away, because I stay inside there *moemoe* [sleeping]. And she tell me "Boy, *mai. mai*" [come, come]. "Hoo Tūtū from where this *pu'a*?" "Ahh, they come home look for me." Poor thing but.
- KM: So their main thing, she fish, she make *pa'akai*, they trade. . .
- KH: Yeah, that was her main thing. Yeah, Tūtū, that was her hobby that, *kaula'i* [dry] fish, go outside, *holoholo* [go around]. She take care the area, go around, *mālama* [take care], make all the *pōhaku* [stones] right. I watched Tūtū do all that.
- KM: '*Ae* [yes]. So she used to set the stones in certain areas. . .?
- KH: Yeah, all the kind that *hāne'e* down, fall down, she'd go there put them all back.
- KM: Ahh, from the old *heiau*, or the old *ko'a* [shrines] like that?
- KH: That place used to be clean, ohh!
- KM: Was she living down there, out of her *aloha*, or was she caretaker for somebody?
- KH: No, she was living down there.
- KM: Because that was their land, that they were familiar with?

- KH: That's right. That's why she knows that place, like her finger. And she used to tell me all the marks and stuff.
- KM: 'Ae [yes], what name this. . . ?
- KH: Yeah.
- KM: And what, had *ko 'a* [fishing shrines and stations]?
- KH: She went show me one place where she used to make her *pōhaku* [stone] eh. And get the *wai* [water], when she come high tide, the *wai* used to clean the *pōhaku*, and she used to make her *inamona* [*kukui* nut relish] inside there. Yeah, *kukui*, she used to *kaula 'i* [dry 'um] and then she *pūlehu* [broil], and then she make her *inamona*.
- KM: 'Ae, *kukui mai uka*? [Yes, *kukui* from the uplands?]
- KH: Yeah, *mauka nei* [up here]. And she take, for *kaula 'i* [dry], make her *inamona*. I'd watch her.
- KM: *Makai*?
- KH: *Makai*, Makalawena. I remember that place, I used to go, but now, I don't know.
- KM: So she had a house down there too?
- KH: Big *hale* she had.
- KM: Was it enclosed in a stone wall, or. . . ?
- KH: No, just open.
- KM: Had a *kahua*, a platform, or was it built up, on stone, or post and pier?
- KH: No, no, it was on posts, so the *pu'a* can go underneath. They go *moemoe* [sleep] underneath eh.
- KM: Ohh!
- KH: And she had all the *kao* [goats] too eh.
- KM: Yeah.
- KH: And they all go underneath. So I look at all the goats now. I see all this *kalakoa* [calico], I tell. "Hey, that's all Tūtū's goats."
- KM: [chuckles] Makalawena goats eh.
- KH: Right, I know that. That's why I tell my kids, when we used to go *holoholo* [travel around] before, "You see all this *ke'oke'o* [white] kind, no shoot 'um." That's all the mark that.
- KM: That's Tūtū's one.
- KH: That's right, and they're tame too eh. Yeah.
- KM: Amazing. So young time, then, and we're talking, you're still ten, or younger than ten?
- KH: I was nine years old, seven, eight, nine.
- KM: And so you folks would go fish Mahai'ula, Makalawena. . . ?
- KH: Mostly Makalawena and Ka'ūpūlehu, and Kūki'o.
- KM: Ahh, so Tūtū would go up, would you *holo wāwae* [walk feet], or would you canoe, or. . . ?
- KH: *Holo wāwae* and we get *kēkake* [donkey]. One for the *ukana* [provisions], and one for us, we no going come home. We going down there, we stay over there. That's how us.

- KM: At Kūki'o, did you stay too?
- KH: Kūki'o.
- KM: I understand that Tūtū Jack was caretaker for Stillman them, or something.
- KH: Yeah, *pololoi* [right]. Had the old *hale* [house] over there too. But, when us would go down there, *mahi'ai* [plant] the place, and clean up, the house was all *popopo* [rotten], been *hā'ule* [fall down]. But I remember the *hale* was still there. But that *'āina* there, *lo'a ka i'a* [get the fish]. That's how all my *kamali'i* [children] were raised.
- KM: Ohh—*nui ka i'a* [plenty fish]?
- KH: *Nui 'ino nō* [so much]!
- KM: *I'a like 'ole* [all kinds fish].
- KH: All kinds. That's why I *aloha* that place. Every time I go over, I tell my *kamali'i*, "You folks got to *wala'au, mahalo*" [say thank you].
- KM: *'Ae* [yes], always yeah, you "*aloha, mahalo*."
- KH: You need *kaukau, lo'a* [food, you get] at this place, you no starve. My kids, they know. They kind of respect that because. . . Even night time, I go, I only take my small girl, we go, good luck. One, two hour, I stay home, *kau lana* [rise up] already the *'ama* [young mullet fish]. I *kahea*, call all my brother guys, "Come, come, *lo'a ka i'a*" [get the fish]. "Eh?" My boy tell, "Yeah, dad went last night, good luck." That's why me, I always *mahalo* [give thanks] the *'āina*, the *kahakai* [shore], you know...
- KH: [speaking of a pond in Kūki'o] Get one coconut tree inside there. You went inside there?
- KM: Yeah.
- KH: That's the place they used to *'au'au* [bath] before, the wahines [women]. The wahines used to *'au'au* in there, that's the story of there.
- KM: Now this is the one right at Kūki'o?
- KH: Right.
- KM: And the little *punawai* [spring or pond] you were talking about, with the coconut tree...?
- KH: The one over here.
- KM: Okay, Kūki'o.
- KH: Yeah.
- KM: Now, when we come. . . See, here's Mūhe'enui, *mauka* here.
- KH: Right.
- KM: Kuili. by Awake'e-Kūki'o-Manini'ōwali.
- KH: Okay.
- KM: Now, when we go through Kūki'o, right when you hit the edge of the Kūki'o sand. . .
- KH: Right.
- KM: And the boundary of Ka'ūpūlehu, come to the *'a'ā*, and the old trail goes along the shore.
- KH: Right, right.
- KM: Has another little pool, pond, over there too.
- KH: That's the one right on top the *'a'ā*?

- KM: 'Ae [yes]. And you can even see some old house, little walls and. . .
- KH: Yes, that was there from before, when we used to go *kiloi 'upena* [throw net], and come back, we used to 'au'au over there. They made steps like for go down.
- KM: 'Ae, yes, you can still see too, there's a nice little canoe landing on the side there.
- KH: Right, right. But, over there, the *alanui* [trail] now, they went pave 'um eh.
- KM: That's right... What are some of the kinds of fish you'd catch?
- KH: Well, the *moi* [thread fish], get the 'anae [mullet], *uouoa* [false mullet], ohh—*manini* [reef surgeonfish], and we get all the *palani* [surgeonfish], everything, you name 'um. That place had *kau i 'a* [plenty fish].
- KM: Did you ever remember seeing your Kūkū them, or anybody. . .you know, some times, when the ocean is rough out side, no can go fishing eh. And where get shallow water, you make *hale*, or *umu* [stone mounds]?
- KH: *Imu* [stone mound in the water to attract fish]. Yeah, that's how they used to do. [make 'um] All there, Makalawena, Mahai'ula.
- KM: Wherever they could find the shallow place like that.
- KH: They no can go outside, they make all that inside. I used to go with them, go broke the *imu*. I used to watch them [chuckles], and not anybody can make *imu*. Some *imu* they make, they no make opening.
- KM: Ahh to *pa'a* [tight].
- KH: Yeah the *pūhi* [eel] go home inside there. So my Tūtū used to tell us how to make the *imu*, "Make a *mākāhā* [gate or channel opening], and you can see the other side." So the *manini* go through.
- KM: Oh, I see, so get opening just like?
- KH: Yeah, that's how they used to make. And some people, they like *kolohe* [make trouble] for you, they go make no good kind *imu* eh. When you go inside there, try *hakihaki* [break apart] the *pōhaku*, ohh—the *pūhi* come out! Ahh, these guys *kolohe*, no make like that, they like their *kaukau* [food] eh. No that's true, that whole 'āina used to be all *imu*. In fact, over here, everybody make *imu*, over here. But, let me tell you this, I remember all the *punawai* [water holes], that get pond *mauka nei* [inland], they come from the ocean, *halihali* [carry] water, what ever they get, what they no eat, they throw 'um inside there. They throw 'um in the ponds.
- KM: Oh, in the ponds, stock up, to hold eh?
- KH: They keep, they're smart. When they like fish, no more emergency, they get.
- KM: 'Ae [yes]. So they would stock all the little *wai kai*, brackish ponds along the shore?
- KH: Right, that was all *i 'a* [fish] before. Kūki'o was the same. Kaloko the same thing, all that ponds used to be. . .that's all for emergency, when people need. Before, that's how they used to do their exchange. All through that kind stuff, they no need go outside, to go get. That's how I used to tell, I told this story to some of this people that I know.
- My Tūtū used to tell us, "Boy, when you get older, you going find out why." Because they used to trade their fish, you know, their marketing like. The mountain people take, and people *makai* give them fish. And they give good fish, they no give any kind 'ōpala [rubbish]. Same like *mauka*, and they love *pa'akai* [salt] meat. My Papa used to take the *kelamania* [crock pot], you know. Yeah, *kau* [place] on top the *lio* [horse], *holo* [go] *makai*.

KM: All *kaula 'i* [dried].

KH: Yeah, all *pa 'akai* [salted].

KM: Did you folks ever go to gather *pa 'akai* [salt] in Ka'ūpūlehu somewhere?

KH: No, the only place I used to go was Makalawena, and Mahai'ula. But Mahai'ula had the big one over there [the Kaulana salt works at Ka'elehuluhulu].

KM: You know, by the way, at Mhai'ula, you know, when you go down to the park today?

KH: Uh-hmm.

KM: And if you go straight down, where the road ends, and the beach starts, has a little *loko* [pond]...?

KH: Yeah, yeah, yeah.

KM: Do you remember anything about that little pond at all?

KH: Well, that time, you know, we weren't so concerned on that. We were mostly with the big things outside there.

KM: You were by the house side?

KH: Yeah, by the house side, so that, I don't know.

KM: Now, you think though, I'm trying to clarify this, where your Tūtū made *pa 'akai* [salt] at Mahai'ula. . . The house is in the center of the bay [gesturing], the house is here, that little pond I was just talking about is over here [Kaulana]. And back in here has all *pāhoehoe* flats.

KH: Uh-hmm.

KM: And it runs right up to the ocean, some.

KH: Yeah, yeah.

KM: You think that's where she made *pa 'akai* [salt]?

KH: I think so, that's the place. That's the only place that I remember, that *pāhoehoe* right there.

KM: Did you ever remember hearing about one ship wreck out here?

KH: I heard about it, but I didn't see that, but the story was the time it was told.

KM: Because you can still see some of the boat pieces in the water.

KH: Yeah. Hey, I tell you, that's a long time ago.

KM: So you don't remember if your Tūtū ever went to Kalaemanō to gather salt, or did they?

KH: No, I don't think so she went there, because we had enough this side.

KM: Ahh, that makes sense.

KH: Yeah.

KM: What you shared was very interesting too, about this idea, if you make the *imu*, and you get more fish than you need, they're living already, you get in the net, so they went and filled all these little *loko kai*, all these little ponds.

KH: That's what my Tūtū used to do. I used to go with them. We used to carry all the. . .they used to get all those bamboo baskets, and inside, she get all *limu* [seaweed]. The way how they went weave the *lau hala* [pandanus leaves] before. I don't know if you remember, the *kukui* [candle nut tree] get one sap, the *pilali*, the gum. They used to seal

- 'um with all that.
- KM: Ahh, they would soak that *pilali*. . . ?
- KH: Right, and make it all inside.
- KM: And so it would hold water eh?
- KH: Yeah, and they take their fish up there, put 'em inside the pond. That's what my Tūtū used to do. I remember when we used to come up before, *makai*, Kohanaiki, we used to *kālai* [cut] all the *kukui* tree, *hemo* [remove] all the *pilali*. I was telling, "Tūtū, *kēia ka mea 'ai*" [Grandma is this a food]? She said "Yeah, '*ai kēlā*" [that's food]. So we eat that. So I tell 'um "What you going do with this?" "*Mahope 'oe 'ike*" [you going see later]. So we going *makai*, she was making all that *kai* [soupy mixture] [gestures with his hands].
- KM: So she rub it all inside with water?
- KH: Yeah, she go get the *kai* [salt water] from *makai* eh, and she put 'um inside the '*eke* [basket] and she shake 'um up, and it comes real *waliwali* [slimy], you know.
- KM: '*Ae* [yes].
- KH: Just like jello.
- KM: Oh, that thick eh?
- KH: She tell me, now when she going put that on top the '*eke* [basket] or whatever she get, "That going *pili pa 'a* [make everything tight] all. That's where they going put the *wai* inside, for carry all the *i 'a* [fish] *mauka*." I tell "Wow!" That's something that I learned. Hey I look at that, you know, they knew how to survive.
- KM: *Na 'auao* [intelligent].
- KH: That's right. Like I was telling you earlier, "they only took what they need." That's why I look today, people *hainā* [abuse] all this stuff, I tell, "Bum-bye *nele* [no more]."
- KM: '*Ae* [yes]...
- KH: ...My Tūtū Una, Anna Una, ohh—she used to *mālama* all those ponds. She go there, anything '*ōpala* [rubbish], she *hukihuki* [pull] all the *kōali* [morning glory] inside, *hemo* [remove 'um].
- KM: Ohh—so she really *kahu* yeah, she steward, take care. . .
- KH: Yeah.
- KM: All that '*āina*.
- KH: She used to *huki* all the *nahelehele* [wild growth].
- KM: And you said even if had a *ko 'a* [shrine]. . .
- KH: Yeah.
- KM: . . .*Kū 'ula, heiau*. . . ?
- KH: Yeah, all that kind *pōhaku* [stones].
- KM: She put all back.
- KH: She put it all back, that's how she was.
- KM: So she just walked the whole land?
- KH: Yeah, and then she call me, "*Mai, mai, 'o 'oe, a 'ole maka 'u*" [come, come, you, don't have to be afraid]. She tell me "No scared, *mai* [come]." I no scared, me, I go. And she

tell me wherever I go with her. She used to *mālama* [take care] all that.

- KM: 'Ae [yes]. What was your sense as a child then , with this Tūtū, 'cause something too that is always a big concern with people, what do you think about *'ilina* [burials], and about the *iwi* [bones], *wahi kūpapa 'u* [burial places]?
- KH: I think they was buried there for a reason. Because that was their place, that was their *hale* [house] already.
- KM: Sure.
- KH: I think, once upon a time, they owned all that place. So what ever was there come right there.
- KM: 'Ae [yes]. Well, it was like you said earlier, at Mahai'ula, you know when you go behind the house, *mauka*, almost one mile eh?
- KH: Yeah.
- KM: Get that cave.
- KH: Uh-hmm.
- KM: Now I was translating some old Hawaiian language newspaper stuff, actually, not that old, it was 1920s, but Tūtū John Ka'elemakule. . .
- KH: Yeah.
- KM: Because his Tūtū had that place at Mahai'ula too, The Tūtū Poke and Ka'ā'ikaula, and they're buried up in that cave. And he said that cave was "Kolomikimiki," that was the name.
- KH: I heard that, Kolomikimiki.
- KM: 'Ae [yes]. And even Aunty Lei Collins, her first husband was John Ka'elemakule's son, Joseph.
- KH: Oh.
- KM: And he, Papa Ka'elemakule took a liking to Aunty Lei, and when he died in 1935; you know where Jolly Roger is by the bay, by Akana's side?
- KH: Yeah, right *makai*.
- KM: Had a grave yard there. And when Papa Ka'elemakule died, his instructions to Aunty Lei was "All of the family graves. . ." In that case, because he saw the land changing, he said "I want you to take all the graves out to Mahai'ula. . .
- KH: That's the place.
- KM: And so now, 1935, the graves are all out in that cave. And was Tūtū Charley Moku'ōhai who came and help her take everybody out there.
- KH: Yeah.
- KM: And so it seems like graves were important... .. This is so interesting too, about what you shared about the relationship...this sense of stewardship that your Tūtū was exercising.
- KH: Yeah.
- KM: To go and take of things. *Hāne'e ka pōhaku, ho'okau hou* [the stone falls off, you set it back up].
- KH: That's how she was.

KM: You put it back up, you clean the land, take care.

KH: The best part about that. I used to follow her, and she tell me "*Mai. mai* [come, come]." I watch her boy, I like know what she going do. And I see her, she do all the kind stuff, she go inside, clean the '*ōpala* [rubbish], *huki* [pull] all the kind no good. And she see *pōhaku* [stone] like that fall down; and to myself, when I grew up, I was thinking, "Gee she was showing me something."

KM: By the action too, she was showing you how to take care, to be a steward.

KH: And she was old, she was doing all this, strong.

KM: Was she the older sister of Tūtū Lowell Punihaoale, or was she a little younger?

KH: I think she was the oldest... That man had a lot of love. Every time we sit down, he always talk about Ka'ūpūlehu, and how he used to ride the mule to church, Makalawena. That old man had some good memory. Until *pau*, he was. . .

KM: Well, he was quite old eh, ninety-something.

KH: What about 96.

KM: Oh, what a blessing.

KH: He was our *kahu* [minister] in church.

KM: Is that the church up there, Mauna Ziona, was it *makai*?

KH: Yeah.

KM: It was at Makalawena?

KH: That's the one.

KM: It would be very interesting some time, I don't know if you've ever done this, but to try and go before. . . and see, at least you're young enough too so it's kind of *ikaika* [strong] eh.

KH: Yeah.

KM: *Hiki iā 'oe ke holo* [you can walk]. Some of the Tūtū, it's harder now. But to go while some one who was there when there was still a few of those buildings there. "Where was this." Because, next year, or ten years form now, they look at this, "Oh, is this one *heiau*, a burial, or what?" They don't know.

KH: Even that graveyard site down at Kūki'o, I took Hannah them, the archaeologist, but no body like go see that kind stuff, they *maka'u* [scared].

KM: So has a graveyard *makai* at Kūki'o?

KH: Yeah.

KM: By all the coconut area?

KH: *Mauka nei* [above]. But we went put all ribbons on top.

KM: Oh, good, good.

KH: But get one big *puka* [entrance] inside there, they asked me "How we going inside?" I have to open the *puka* for go down. So before they go, I tell I got to go *wala'au* [speak] with them.

KM: Well see, that's a part of the answer to my earlier question too, how did you feel, that you *aloha*, that you don't disrespect, that you ask first.

KH: Yeah, got to.

- KM: So you take care of the *iwi* [bones], *'ilina* [burials] like that.
- KH: Yeah, they were once like all us...Yeah I still remember, you know, the things that she taught us, taught me especially. I was more to her, like a right hand boy. Anything, *hānai* [feed] the *'ilio* [dogs], the *pu'a* [pigs]. She always used to call me. She used to *mālama* me, boy, and she taught me about the *'āina* [land], the *kai* [ocean], anything that was given to us, be thankful. So she always tell me, "*Maopopo* now, *a'ole pōina*" [remember now, don't forget]...
- KM: ...Did your Tūtū them use land marks to identify *ko'a*, or fishing areas?
- KH: They used to know, they used to do that.
- KM: Certain *pu'u* [hills]. . .?
- KH: See, our Tūtū, I remember her, she used to watch all like *mauka* side, like where Hannah guys stay that's all Ka'ūpūlehu, and she used to mark all the high spots and stuff. And she'd go outside there herself with the *hoe* [paddle]. *Holoholo* outside there.
- KM: That's so neat how you describe she could *kahea* [call out], and so she had faith, she no need worry.
- KH: She *kahea*, I could hear her *kahea*. Good luck, she always used to come in with her canoe *piha* (full).
- KM: Did you ever see her leave *ho'okupu* [offering] of *i'a* somewhere?
- KH: Yeah, I see?
- KM: Mahai'ula too?
- KH: Yeah, she used to go and do her thing, make everything, and she give, *ha'awi*. She always give back.
- KM: Now see, that's a special area, where they would *ho'okupu*.
- KH: Yeah.
- KM: Is that close to the house or on. . .?
- KH: To me, it looked like it was pretty far for her.
- KM: Oh, she'd go off?
- KH: Yeah. I 'd watch her, she'd go for a pretty long time, maybe about 45 minutes and then she'd come back. But as far as where she'd go, I don't know. But I know she does that. She go for her *aloha*. And she come back, she tell me what's going happen tomorrow, she already tell me. "*'Auwē, a'ole pilikia, apōpō mākou hiki*" [Ohh—no problem, tomorrow we can]. Hey, I look at that I say "Wow." But it's true you know, that's her.
- KM: Did they live at Makalawena before Mahai'ula, or the other way?
- KH: Well, they were staying at Makalawena, that was the original place, but I guess they go back and forth to Mahai'ula. But they used to stay at Kūki'o, the corner side. And Ka'ūpūlehu, because they had all their donkeys too over there. They used to go over and *hānai* [feed] them all with the *kiawe* beans eh. Yeah, she used to go pick all beans and take 'um over there.
- KM: Oh, strong woman yeah, she just *holo* [go].
- KH: But her original place is Makalawena, that was her home.
- KM: And so they went kind of take care of the place for Magoon, down Mahai'ula though too?

KH: Yeah, because that time, was George Magoon eh, the son, or the father, I don't know which one, I was young. But I remember them going back and forth. They [Magoon] had one sampan. That's what they had before, so they used to bring *kaukau* from Kailua before. And my Tūtū used to go with the canoe and load up what ever, rice, *poi*, and come home. So I tell "Tūtū where you going, all the way to Kailua?" "A'ole [no], over there." Yeah, oh *aloha* though I tell you...

November 8, 1997 – Group Interview at Mahai'ula

Violet Lei (Ku'uleikeonaona) Lincoln-Ka'elemakule Collins (with John and Connie Ka'elemakule), Caroline Kiniha'a Keākealani-Perreira, George Kinoulu Kahananui, Valentine Kalaniho'okaha Ako, Leina'ala Keākealani-Lightner, Richard (Ka'elemakule) Lincoln, and others—identified in transcript²

(Kepā Maly, interviewer)

The following interview was conducted in the lands of Kaulana and Mahai'ula. The primary interview participants were *kūpuna*, descended from, or re-presenting native families of the Kekaha park lands (the families of: Ka'elemakule-Collins, Kuehu-Keākealani (Mahikō), Kahananui, and Ako). Biographical information about the interview participants is cited above, and in the interview itself. The spoken Hawaiian is written as it was spoken. The translated narratives are enclosed in square brackets, or indented below long paragraphs... Other participants in the interview included younger members of the Kekaha families, and representatives of DLNR-DSP, DLNR-Aquatics Division, and Group 70 International.

Preceding the beginning of the formal interview at the Mahai'ula (Magoon) Beach House, the group went to the shore of Kaulana at Ka'elehuluhulu. Upon getting her bearings, Aunty Lei shared some of her recollections of the area, from the mid 1920s to early 1930s. Summarized, key points of her discussion included the following:

This was the first time since she and a small group of people came to bury John "Papa" Ka'elemakule and his family members at Mahai'ula in 1936, that Aunty Lei had been to Ka'elehuluhulu. With tears in her eyes, Aunty Lei told us that Papa Ka'elemakule impressed upon her, that the place where we were standing, was Ka'elehuluhulu. It was a very important name, and one that Papa wanted remembered.

At Ka'elehuluhulu, under the shade of the heliotrope, *milo*, and other trees, the stone walls (Site 53) are the remains of a house and canoe shed that was still used in Papa Ka'elemakule's time. One of Papa's special canoes was still stored at the site in the 1920s-1930s. The canoe used be launched from the shore fronting the house and canoe shed. The low, walled and terraced cement platform (Site 54), about 150 feet south of the old house and canoe shed site (on the *pāhoehoe* flow), was used for making salt. An activity which Aunty Lei witnessed in the late 1920s.

Aunty Lei remembered that several families came to make *pa'akai* (salt) at these ponds, and in particular, she remembered three women who would come down regularly. When the ocean was rough, they would pour water into the salt beds. Sometimes, they would cover the salt beds with coconut fronds to keep the

² Interview Participant Abbreviations: LC=Lei Collins; CK-P=Caroline Keākealani-Perreira; GK=George Kahananui; VA=Valentine Ako; JK=John Ka'elemakule Collins (CK=Connie Ka'elemakule Collins); LK-L=Leina'ala Keākealani-Lightner; RL=Richard Lincoln; AC=Alan Carpenter; SS=Sherrie Samuels; TY=Toni Auld-Yardley; MY=Martha Yent; GA=George Atta; CrC=Craig Cho; CaC=Casey Cho; Cl=Clifford Inn; KL=Kimberly Lowe; KM=Kepā Maly.

crystallizing salt clean. After several days, the women would take coconut husk sieves and scoop up the white salt crystals which were then further dried on the rocks and then bagged. Papa Ka'elemakule gave salt to the families who needed it, and also salted the fish that was taken to be sold at the market.

[Tape 1, Side A: introductions by participant *kūpuna*; eldest to youngest]

LC: I am Violet Ku'ulei, married Ka'elemakule, widowed, and married Louis Collins. I have one son, John Ka'elemakule Collins... [pauses, jet flying over head] My son John. John, will you please stand? This is John my son, with Joseph Ka'elemakule, and that is his wife Connie, who gave me four grandsons. They all carry the name Ka'elemakule and Collins... Before we continue Kepā, I think it is proper that you explain to all of us, the purpose of this gathering, and the connection we have with the State park, before we go any further.

KM: Yes, that's why we wanted just do some introductions right now, so that everyone could introduce themselves, and then if there are some questions about the State Park, we can do that. So Auntie Lei, and then Auntie Kiniha'a.

CK-P: Hmm.

KM: 'O wai kou inoa? [What is your name?]

CK-P: Kiniha'a. Caroline Kuehu, Kiniha'a.

KM: 'Ae [yes], Keākealani?

CK-P: Keākealani Kuehu.

KM: 'Ae. Male iā Perreira? [Yes. Married to Perreira?]

CK-P: 'Ae [yes].

KM: Makahiki 'oe i hānau ai? [What year were you born?]

CK-P: 'Umi kāmāiwa, 1919, June 26 [chuckles]

KM: 'Ae [yes]. Where were you raised makai?

CK-P: Pu'uanahulu.

KM: Pu'uanahulu and Ka'ulupūlehu?

CK-P: 'Ae, Kaupūlehu [as pronounced]. First, yeah... Hānau i Pu'uanahulu [born at Pu'uanahulu], raised, ho'i wau i Kaupūlehu [went to Kaupūlehu], when I was a little girl. Brought up [chuckles].

KM: 'Ae, mahalo. Uncle Kino, you're the next in age, I believe.

GK: 'Auwē!

KM: Mahalo. Your name please.

GK: 'O wau nō, 'o Kino Kahananui. [I am Kino Kahananui.]

KM: 'Ae. Makahiki 'oe i hānau ai? [Yes. What year were you born?]

GK: Ka makahiki 'unikāmāiwa-iwakāluakumamālima. [The year was 1925.]



Kupuna Caroline Kiniha'a Keākealani-Perreira at Mahai'ula

KM: 'Ae, mahalo. 1925. Okay. Lawe 'ia 'oe i keiki hānai na Kahananui? [You were taken as the adopted son of Kahananui?]

GK: Ku'u manawa au i hānau 'ia ai, lawe ana wau i kēlā lā. Hānai 'ia au na ku'u hānai, Kinoulu me Haleaka. [At the time of my birth, I was taken that day. I was cared for by my foster parents, Kinoulu and Haleaka.]



Uncle George Kinoulu Kahananui at Mahai'ula

CK-P: Oh yeah.

KM: Kahananui.

GK: 'Oia ku'u mau kahu hānai. Noho wau me lāua, kēia wale nō ka 'ōlelo ma'a ia'u, ka 'ōlelo makuahine. [Those were my foster parents (guardians). In my dwelling with them, this was the only language I was familiar with, the mother language (Hawaiian).]

KM: 'Ae.

GK: A hele au i ke kula, pāpā 'ia au, "A'ole kama'ilio ka 'ōlelo makuahine, kama'ilio ka 'ōlelo Pelekane." [When I went to school, I was forbidden, "Don't speak the mother language, speak the English language."]

CK-P: [nods her head in agreement]

KM: 'Ae, ka Pelekane eh. [Yes, English.]

GK: 'Ae [yes].

KM: Ua ulu 'oe ihea? [You grew up where?]

GK: Kalaoa.

KM: I Kalaoa uka? [At upland Kalaoa?]

GK: 'Ae, Kalaoa uka. [Yes upland Kalaoa.]

KM: 'O wai kou mākuā pono 'i? [Who are your own (true) parents?]

GK: 'O Kimo Ako, a ka makuahine 'o Lily. [James Ako and mother was Lily.]

CK-P: Hmm.

KM: 'Ae.

GK: [gesturing to Valentine Ako] Ku'u kaikaina kēia. [This is my younger brother.]

KM: 'Ae. 'Oia ke kumu i pili 'oe me Uncle Val eh? [Yes. So that's the reason you are related to Uncle Val?]

GK: 'Ae [yes].

KM: [speaking to Valentine Ako] Uncle, your name please?

VA: I'm Valentine Ako. I reside on the island of Kaua'i now, but, my roots was always here in the Kona Coast. Especially, Mahai'ula [pauses, tears rising to his eyes]. I knew all the fishing ko'a [grounds] over here, and when I heard that the State was going to take over, and make it a State Park...And by changing the name to Kekaha Kai State Park, I was in

opposition to it, because when our *Kūpuna* named a certain beach, there was a significance behind it. To put Mahai'ula, Makalawena, Kūki'o, Ka'ūpūlehu, and Kalaemanō under this one name, our heritage is going to be taken away. And I personally feel that if it's going to be any...

that it will be Mahai'ula State Park, never to be changed to Kekaha Kai State Park. 'Cause as far as our ancestors, and my age, I was born in 1926, this was always Mahai'ula. And the name Makalawena had a significance behind it, and it should not be changed. And I think that the *Kūpuna* would agree with me, that it would be right to keep Mahai'ula, Makalawena, Kūki'o, and Ka'ūpūlehu, Kalaemanō. Each name had a purpose and if we can do research, it will signify why these names were put here. And merely to change it to...like they say, they want to change it to Kekaha Kai State Park, it has nothing significant behind it. Not because the place is called Kekaha, we're going to eliminate the original name.

KM: We'll talk about that, about the place names, and I think that Martha, who will introduce herself in a few minutes, can share a little bit of *mana'o* [the thoughts] about the process, the naming...how things came about. And uncle Val, what your brother said, uncle Kino, he shared that you folks are brothers.

VA: Yes.

KM: You're 71, uncle is 72, and so you folks share the same parents, but your brother was *hānai* to Kinoulu and Haleaka Kahananui...

GK: 'Ae [yes].

KM: ...brought up in Kalaoa. Well [pauses], we'll go on...

My name is Kepā, and I'm going to try to, with the help of the people here, we're going to try to record today some of your stories, your recollections about the land here. About how important it was to the *Kūpuna*. About your personal experiences, memories. And the idea is... Aunty Lei, in part to answer your question; because this land has been dedicated as a State Park now, the State wants to know how best to take care of it. And that's what we're doing here. Only you folks have that connection to our past. So if we talk, and gather your *mana'o* [thoughts], your history, then the State can make the best decisions about managing the area... Some places maybe, shouldn't be visited. Maybe other places, the name should be told, like Ka'elehuluhulu. How important you said it was, and Mahai'ula. So this is what we're trying to do. Because only you folks were the natives to this land, you are the ones that were *kupa* [native residents]. And you can tell us how the *Tūtū* taught you about caring for it. And uncle [Kino], you remember, as an example, Aunty Annie and Jack Una, and how they took care of this place, what they did. And *Tūtū* Punihaole *mā* [and folks], all of those things. So this is what we're going to try and do today. To answer your questions, but also, most importantly, you folks are our teachers today. And it will go on to preserve, and perpetuate it for the future.

SS: I'm Sherrie Samuels, I work for State Parks, Planning Branch, and we have been working with the community through a task force for the last, almost...I think 1994. To develop an overall plan for Kaulana, Mahai'ula, Awake'e, Manini'ōwali, and Kūki'o. Because the park in total, is really about 1600 acres.

And Mahai'ula is to be the first area of the plan that they want to give the most attention to, to take care of it and provide facilities, perhaps composting toilets, maybe new picnic tables. Renovate this house and the Ka'elemakule house. And then later on, may be they will go to take care of the Kua Bay side, Manini'ōwali. And then eventually, Awake'e will be the last section to be provided facilities.

So the State has to kind of do it in phases, to afford it and make it happen. And the first step is to make the plan, and right now, we're working on what they call the

development plan, which is focused on Mahai'ula. And the interpretation, everything that you tell us here, the interpretation will come, as Martha will tell you, it may be through proper signage, for place names. Maybe through brochures, maybe docents, teaching, from the buildings. Perhaps marine education which is another program they want to start for the *keiki* [children]. So there are a lot of good ideas that they want to bring into being, and we need to understand that.

KM: *Mahalo.*

TY: I'm Toni Auld-Yardley, and I am a researcher, writer, and I've also been involved in the last five years with the cultural monitoring program in Hälawa Valley on O'ahu. And I'm very interested in developing, what they're calling "Cultural Resource Management."

I have been very interested in seeing how we can apply our cultural perspective, as you're describing, with how historic preservation can take place here in Hawai'i. And how we can weave in the cultural... Sometimes we get it strictly from our *na'au* [gut feeling], and from *ke akua* [god], the *'aumäkuä* [ancestral deities], that we need relay this into quote, "the system." And this is my interest in being able to try and utilize information like this, and with the sense of place, with the western-type structure.
Mahalo.

KM: *'Ae.*

MY: *Aloha. I'm Martha Yent, I'm with State Parks...*

LC: *Who?*

KM: *Martha Yent.*

MY: I'd like to thank you all for coming and sharing today. As Sherrie and Kepä have mentioned, I'm an archaeologist by training, but I will be working on the interpretive program, which means the restoration of the buildings, and the stories that we want to tell the park visitors when they come. So I'm here to learn today hopefully have some insight, and if the opportunity arises, to meet with you again, maybe on some more detailed questions that might develop as we start planning for the programs.

KM: *Mahalo.*

GA: I'm George Atta, I'm with Group 70, the planning firm that is working with State Parks. We've been contracted to do the master plan and project development for this park. I'm just here...I've been with this project since 1994, and I'm just here to listen and get all of your knowledge and wisdom, and try to help put it into the project development.

KM: *Mahalo.*

LC: *Excuse me, what was your title and name?*

KM: *George Atta.*

GA: *George Atta, I'm the project manager for the park planning...*

KL: *[Kimberly Lowe] What is the name of the group? Group 70.*

KM: *A management and planning consultant.*

LC: *Okay, that's good... [inaudible]*

KM: *Richard [Lincoln], please come closer, otherwise we won't hear.*

RL: *Not me.*

KM: *Sure, you're an important link, as Aunty Lei said.*

LC: He is, he is.

KM: You're the generation today, who is descended from this land.

LC: As a child...let me add to your comments. As a little boy, he used to come with my cousin, Solomon Ka'elemakule. He [Solomon] was very close to dad, Papa Ka'elemakule, very, very close. And this boy knows a lot of details that we might pass up. He knows it. So I asked him to please come.

KM: *Mahalo*. And Richard, your last name is Lincoln?

RL: Yes.

KM: How old are you now?

RL: Forty-five.

KM: Were you raised here in Kona too?

RL: I was, since I was 15 years old. Before that, I lived at Maunawili Valley.

KM: *Mahalo*. Sir

CrC: I'm Craig, I'm just here to help.

KM: He's our *mea kōkua, kākō 'o* [helper]

CK-P: [chuckles]

LC: Thank you.

KM: John.

JK: I'm John Ka'elemakule Collins.

CK-P: Ohh!

JK: My claim to fame is my mom.

Group: [chuckling]

JK: This is a learning experience for me, I don't really have anything to contribute as far as the story. But we're pretty fortunate to have the State take over and perpetuate this thing for our family.

KM: As a child, did you have the opportunity to come down here, or was it *pau* [finished] already?

JK: No, I've been here in just the last three years.

KM: When were you born?

JK: Born, this century [chuckles].

Group: [laughing]

JK: Nineteen-twenty-nine.

KM: Okay, so your papa was Joseph Ka'elemakule, John Ka'elemakule's second son, I believe?

LC: Yes.

KM: He was still alive till 1935.

LC: Thirty-five.

KM: So as a child, did you come down here at all, or you folks didn't come too much already?

- JK: At the time, we had a store in Kailua, and I think they were more busy with the store. Not too much time to... Because you had to come by ship, I guess to here.
- LC: Uh-hmm.
- JK: You couldn't jump in the car, and come down the road.
- KM: *'Ae, mahalo.* And your beautiful wife...?
- CK: I'm Connie, his wife, and we've lived back in Kona for three years, and everything is new to me.
- KM: Ohh, so you folks moved away for a while?
- CK: From Honolulu. I lived there all my life.
- KM: *Mahalo,* thank you. Casey, now it's your turn, you've got to stand in front of your [video] camera.
- CaC: I'm Casey Cho, and I work with State Parks.
- KM: [speaking to group] Casey has a unique position. [speaking to Casey] I think you should share, particularly, so that the Kūpuna can understand what your position is with this park.
- CaC: They hired me to head up the interpretation and the management of the natural resources here in the park, and to help manage the marine education center that this building here [the Magoon Beach House] will be renovated and turned into. So I will spend a lot of time dealing with the public and interpreting the sites and explaining to them the story of Mahai'ula as well as the rest of the places along the coast, all the way up to Kikaua Point.
- KM: *Mahalo.* And you're actually going to a resident for a while I believe?
- CaC: Yes.
- KM: That's a part of the description, is to have someone living down here, that can, everyday, *'ike maka,* observe and make sure... So if they see something that's not right, happening, they can catch that. And if they see people acting as stewards, taking care of things, you can complement that also. The idea is to really have someone here to ensure that the *'ilina,* the graves, and the various sites that are an important concern, to make sure that people are taking care of things.
- LC: Is it Casey?
- KM: Casey Cho.
- LC: Are you related to Mr. Cho with the County?
- CaC: As far as I know, I'm not.
- LC: Are you a local boy?
- CaC: I'm from O'ahu originally, Kahalu'u. Kalihi was our home, but we moved to Kahalu'u when we were very young and lived there.
- KM: *Mahalo.*
- CI: I'm Clifford Inn, I work with Martha and Sherrie, and him [Casey], and Alan at DLNR.
- LC: [raising her eyebrows] D-L-N-R!
- Group: [laughing]
- CI: And I'm here to document your treasured memories.

- LC: Yeah.
- CI: I'm from 'Aiea, and 37.
- KM: *Mahalo*. Alan?
- AC: I'm Alan Carpenter, I am archaeologist with State Parks and I've been working on the archaeological survey on the Mahai'ula and Kaulana sections of the park down here. I'm really excited to meet you guys and hear your stories. It doesn't really matter how many *pōhaku* [stones] I draw, or how many sites I record, what really makes the sites meaningful are the stories that are behind them. That's really going to help us teach everybody else what went on down here. Thank you.
- KM: *Mahalo*. Leina'ala.
- LK-L: I'm Leina'ala Keākealani-Lightner. I am basically from Pu'uana'hulu, my papa was Lopaka [Keākealani], my aunty is Aunty Carrie [Caroline K. Keākealani-Perreira]. I work at the Kona Village Resort, Kaupūlehu, so I am pretty much at home, that is my roots there, Pu'uana'hulu and my daddy was born at Kaupūlehu.
- KM: *Makai* [the coastal area] eh?
- LK-L: 'Ae [yes]. And I've worked at the resort for almost 22 years. So I consider myself a *kama'āina* of that area.
- And it was just a pleasure to have Kepā invite me to this. My sister and family was at the first gathering at Four Seasons. So I was fortunate to make this gathering.
- KM: Yes, this past December [Dec. 8, 1996], we did a fairly detailed oral history interview with *Kūpuna*—just a little further north at Ka'ūpūlehu—who were *kama'āina* to that place. But many of the stories... Uncle Joe Maka'ai and Aunty Caroline's brother, who is the older surviving member of the family, David Ka'ōnohi Keākealani, Leina'ala's uncle, has been ill, so he was unable to join us. But we have earlier interviews that were done, that share some of their recollections also. Of this place, the land, the ocean, and the *manō*, or the shark that they'd fish with...
- CK-P: [chuckles, nodding her head]
- KM: So we will be able to pull all of these stories together. Thank you Leina'ala, that you were able to join us this time.
- Kimberly Lowe, last but not least.
- KL: My name is Kimberly Lowe, and I have only been in Hawai'i for about 10 years now. I grew up fishing and I love the ocean. My family are either sailors or fishermen, or musicians, so I've been around the ocean all my life, and I've fished in many places. I've watched fisheries disappear in many places and so when I had the opportunity to go to school, I ended up doing fisheries management, and I work with the Department of Land and Natural Resources, in the Aquatic Resources Division.
- I've been working at Kona for about the last three years. I began south, I've been working with the people at Miloli'i and Ho'okena... I'm interested in working with fishermen in the same way that people here are, to try and capture their understanding and knowledge of fishing so that we can protect the fisheries. And also to make the connection between what happens on the land and what happens on the water. So this is the furthest north that I have come, and I'm very happy to be here.
- KM: *Mahalo*. I would like to begin, perhaps by asking you folks a few questions, and as we talk about places, place names, if you share your *mana'o*, what you remember about... Like this morning, we started in the *ahupua'a* [land division] of Kaulana.
- Do you have an idea of what that place name might mean, why it was given? Do you

remember hearing that name? [looking at Aunty Caroline] *Kaulana, pehea ka mana'o?*
[What is the meaning of Kaulana?]

CK-P: What the name now?

KM: Kaulana, where we were at the first stop.

CK-P: Yeah, the first stop.

KM: Did you folks hear why that name was given, by chance?

CK-P: *A'ole, poina.* [No, forgotten.]

KM: *Uncle, pehea kou mana'o, Kaulana?* [What do you think, Kaulana?]

GK: *Ko'u mana'o, kēlā inoa, Kaulana, he inoa 'ihi'ihī. A ko'u mana'o, i ka wā kahiko, ka inoa 'o Kaulana, mālama 'ia kēlā no kekāhi mau mea i lawelawe 'ia ma laila. Kaulana kēlā wahi. Like me kākou i hō'ea i kēlā wahi i kēia kakahiaka, 'ike nō wau i kēlā papa, wahi kaula 'i pa'akai.*

My thought, that name, Kaulana, it is a sacred name. And my thought is that in the ancient times, the name Kaulana was kept by those who did that work [salt making] there. It was a famous place. Like when we went there this morning, and I saw the foundation for drying salt.

LC: 'Ae [yes].

KM: 'Ae [yes].

GK: *Kānana i kēlā mau lā kahiko. Ko'u mana'o, kēia mau mea Hawai'i, mālama huna 'ia kēlā. Ma ka 'ōlelo Pelekane, huna, secret. 'Oia ka mana'o o ka huna. Nui nō ka mana'o o kēia po'e inoa o kēia mau wahi o Kona nei...*

...i ha'awi 'ia no kekāhi mana'o i hō'ea i kēlā manawa. lawelawe 'ia i kēlā manawa. Ko'u mana'o like me ku'u kama'ilio ana me ku'u kaikaina, i kēia kakahiaka. Ninau mai 'oia "pehea kou mana'o e pili ana kēia inoa ma kēia wahi?" 'Ano pū'iwa wau i kona kama'ilio mai ana ia 'u, makemake 'ia ho'okāhi inoa mai kēia kīhi o Mahai'ula a hō'ea i Manini'ōwali a Kūki'o. Ku'u mana'o, a'ole e kawopo 'ia kēlā inoa, mālama 'i kēia po'e inoa 'ihi'ihī. Eia ko'u mana'o, ko'u 'i'ini.

(Salt was) gathered with strainers in those days. It is my thought, that Hawaiian things like this were kept secret. In the English language, *huna* is secret. That's what *huna* means. These place names of Kona have very significant meanings, meanings that were given at that time, by those who did the work. My thoughts are like those when I spoke with my younger brother this morning. He asked me, "What do you think about the name of this place?" I was kind of surprised by his speaking this to me, that they wanted one name from this corner at Mahai'ula all the way to Manini'ōwali and Kūki'o. My thought is, don't corrupt the names, preserve these sacred names. Here is my thought and my desire.

KM: 'Ae [yes].

GK: *Inā hiki ia 'u ke unuhi ka inoa o kēia po'e wahi, le'ale'a au. Akā na'e ku'u mana'o kēia po'e inoa i kapa 'ia i ka wā kahiko, ma kahiko. Mau makahiki kau i ka leo, 'oia nō Mahai'ula nei, Makalawena, Manini'ōwali, a koe aku, Kūki'o, a Ka'ūpūlehu, a hō'ea i Kalaemanō.*

If I can translate the names of these place, I am very happy. But my thoughts about these names given in the ancient times, it's old. Many years ago, the voice was set (the names were given), Mahai'ula, Makalawena, Manini'ōwali, on to Kūki'o and Ka'ūpūlehu, and reaching Kalaemanō.

- KM: 'Ae [yes].
- GK: *He nui nō kēia po'e inoa i 'ike.* [There are many names that are known.]
- KM: *A, a 'ole maika'i ka lilo ana...?* [So it's not good to lose...?]
- GK: *A 'ole maika'i ke lawe ana o ke Aupuni, a kapa lākou i ka lākou po'e inoa. Ko'u mana'o, a 'ole maika'i kēlā. No ka mea, nalowale kēia po'e inoa.*
'Oia paha, hiki mai ana ka lā e ka po'e 'ōpio, e hele mai i ko lākou mākuā, "'O wai ka inoa o kēia wahi?" "'O wai la ka inoa?" A, hele mai paha unuhi lākou, ka lākou inoa Hawai'i. Ko'u mana'o, e kapa 'ia kēia po'e inoa, he po'e inoa 'ihi 'ihi.
 It's not good for the State to take and name it what ever name they want. That's my thought, it's not good. Because, these [native] names will be lost. Maybe, there will come a day when the youth will come to the parents [asking] "What's the name of this place?" "What is the name?" So maybe they will come and translate the Hawaiian name. My thought is that these names were given, and they are sacred names.
- KM: *A he kumu nō nā inoa.* [The names were given for a reason.]
- GK: *He kumu nō, he inoa 'ihi 'ihi.* [There is a reason, and the names are sacred.]
- KM: *'Ae. E kala mai, pono paha e wehewehe ma ka 'ōlelo...* [Yes. Forgive me, but is perhaps good to explain this in (English)...] Your thought is that each of these place names...
- GK: [chuckles] *E kala mai 'oe ia 'u.* [Excuse me.]
- KM: 'Ae [yes].
- LC: *A 'ole pilikia, a 'ole pilikia.* [No problem, it's no trouble.]
- GK: *Puni au i ka 'ōlelo makuahine i kēia nīnau ia 'u.* [I desired to answer this question in the mother language.]
- KM: 'Ae [yes].
- GK: Well, I was saying in my expression, I've been here, born and raised in Kona, here. And I was surprised when Brother Val talked to me about it. And I said, "Oh, what are they gonna do?" "Oh, they're gonna change the name, called a different park..." To me, it's supposed to be any individual name, with this whole name as park, and that is what my intention [said with emphasis]. Mahai'ula Park, Makalawena Park, Kūki'o Park, and go right down to Ka'ūpūlehu Park, and Kalaemanō Park. And I think that would be a great significance. That where the young people would ask a question, "How did this name come?"
- LC: Uh-hmm.
- GK: Maybe some day somebody will interpret that name. And I think that name is supposed to be kept the way it is, not changing. One whole name for this whole area. Because there's going to be a regret at the end of the whole thing. When one young person come, maybe my grandson come, "Hey, you know, I heard the name Mahai'ula, and now how come it's a different name?" Or maybe another one would come, maybe your grandson would say, "Tūtū, the name over here was Makalawena, how come it's one whole name all the way through?" So I think...There is Hawaiian names that have their own significance. And they named this longer than I am, and longer than anyone of us lived. That name, that is my own impression of keeping the name the way it is. You can change it as a park, but in the individual...Supposing, an example, I would think; now if my grandson would say, "I want to go down..." And he call, where's that area? And you get that point now, what is your answer going to be?
 Now can say, go down to Makalawena Park, and that's the park there. Or you go down

to Kiholo Park. So this is what I think should be kept, not to be changed to any Dick and Harry name...excuse me my language. So I want to point out, that is my thought, within myself. And I'm happy that I have this opportunity to speak out. And I thank brother Val for inviting me. I didn't know...he didn't tell me anything [chuckles] but, "Can you come?" And you Kepā, I would thank you for inviting me to come and join in this session here. And I'm really pleased an happy.

KM: 'Ae [yes].

GK: And that is my share, my *mana'o* [thought].

KM: 'Ae, *mahalo* [yes, thank you]. There is a very important thing here, and I don't know, Martha, maybe, do you want to explain a little bit the history of naming?

MY: I'll defer to Sherrie.

KM: Okay, Sherrie, I'm sorry.

SS: The process?

KM: Well, the process of naming the park and what the plan is then, so that the place name...I know, I can tell you [speaking to the *Kūpuna*], that I know from State Parks, that they're very concerned, they want to preserve the place names. So please [looking at Sherrie].

LC: Is it going to happen?

SS: Oh yes.

LC: Is it going to happen, you're not going to use that name, that Kekaha Kai State Park?

SS: They are going to use the name Kekaha Kai State Park. Kekaha for the region, Kai for the lower area.

LC: Oh yeah.

SS: What happened...well, let me say that they want that overall name for the park because the park is 4.5 miles from end to end.

LC: Yeah.

SS: And 1600 acres. So it's a big area.

KM: And there are six *ahupua'a*.

LC: But the whole thing will be named...

SS: Will have one name, but the sections of the park will carry the name, Mahai'ula, Manini'ōwali, Kūki'o, Awake'e. Those names will appear as a part of the park name, as a section name. In other words, let's say you have a sign, Kekaha Kai State Park at...

LC: Yeah, I understand what you're saying. But my concept is that the whole area should be Mahai'ula.

SS: For all of the park?

LC: No.

SS: For this section.

LC: Mahai'ula, you said is going to be... This is the consensus, Mahai'ula should not be taken off that park. Mahai'ula Park, [pauses, thinking]...

KM: I have a map here [RPTO Kona District Sheet; ca. 1930]

LC: Kāwili Point, is that included there?

KM: 'Ae [yes].

LC: Mahai'ula Bay, and Pu'uali'i Bay, Makalawena.

SS: Makalawena is not in the park. That's Bishop Estate's and it's not in the park.

LC: Yeah, right. I think our concern is that the place should not lose its' name. Mahai'ula is a big important name to us [said with emphasis]. I'm an elderly person, but these kids.

SS: They know it that way too.

LC: And my grandchildren.

SS: Okay.

LC: And all we've been telling them Mahai'ula, Mahai'ula! And then you come along with a name of [pauses]...

KM: Kekaha Kai.

LC: Kekaha Kai. I feel now, come on help us.

KL: That's the name that doesn't belong here, is what you're saying. Kekaha Kai is not a name...

LC: It's nothing, nothing. And that's what's happening to so many of our lands here.

SS: Hmm.

LC: And you young people will have to help us.

RL: Aunty Lei, can I say something.

LC: Oh yes.

RL: Who are we renaming these areas for? Is it to educate the visitor?

LC: No, no. They are using the names, Kāwili Point, and then also [thinking]...

KM: What happens is, the *ahupua'a*...we're looking at Map Number 1 of the interviews... This is Kaulana, where we were earlier this morning, down by the salt flats.

LC: That's right.

KM: You see the division line. You see Papa Ka'elemakule's Grant here, Number 4723, which crosses Kaulana and Mahai'ula. Papa's house. Kalāhikiola, and then Magoon's house that we're in now, are within Mahai'ula. Pololei?

LC: Right.

KM: Then you have Kāwili Point which you were just mentioning.

LC: Yeah.

KM: You see Makalawena, which is Bishop Estate? Correct?

SS: Yes.

KM: Only the shoreward access is a part of the park?

SS: Yes.

KM: Then we have Awake'e, which is a large area also.

LC: Awake'e is on that side.

KM: 'Ae [yes]. Then you come into Manini'ōwali. So you see Manini'ōwali.

LC: Manini'ōwali, yes.

KM: And then Kūki'o, which is the extent of the park. So in reality, the park crosses six

ahupua'a.

SS: Yeah.

KM: Six native land units.

LC: That's right.

KM: Originally, the park had another name didn't it?

SS: Originally, the name was...

RL: Kona Coast State Park.

SS: Yeah, they had the name of Kona Coast State Park, which was even more removed...

RL: So I'm asking my *Kupuna*, "Where is Mahai'ula?" They would describe this area right?

KM: 'Ae [yes].

RL: Not individual land changes as the name changes, the different district. Why can't this stay Mahai'ula.

KM: I think that what Sherrie said, is that the goal is...you folks are going to do maps, interpretive material...

SS: Signs.

KM: So the park has a broad name, at each place when you enter a land...

SS: Go between *ahupua'a*.

CK-P: They name eh, Makalawena like that, yeah.

KM: Makalawena, the name will be there.

CK-P: Yeah.

KM: So the name will not be forgotten.

SS: It will not be lost.

KM: So they'll keep each name.

LC: But the whole concept of this is going to be?

SS: The name Kekaha Kai is the name that...

LC: Well, Kekaha, actually is an overall name of the whole region.

KM: Yes, all the *ahupua'a*. Kailua, Keahuolu to Kiholo.

LC: So actually, we are in Kekaha. This is what they want to know. [pauses, jet flying overhead] So we are in the *ahupua'a* of Kekaha?

KM: *A'ole, e kala mai ia'u* [no, forgive me]. What Aunty was just asking, and we'll clarify this real quickly. The *ahupua'a* that we're in right now is Mahai'ula.

LC: Mahai'ula, yeah. Sorry, Mahai'ula.

KM: Kaulana is right over there [pointing south].

LC: Right.

KM: The district... [speaking to the *Kūpuna*] Do you folks remember *Tūtū* Kihe, Isaac Kihe at Pu'uuanahulu? [speaking to Aunty Caroline] *Kama 'āina 'oe me ia* [Are you familiar with him]?

CK-P: 'Ae, 'ae [yes, yes].

- KM: *Tūtū* Isaac Kihe, he was a native historian, well educated. He was Papa Ka'elemakule's generation, born in about 1850. *Tūtū* Kihe, in his story about this place, said that Kekaha, as a native district, not an *ahupua'a*...
- LC: That's right.
- KM: But as a district, *kalana* is the term. It ran from the Kailua area, basically, Keahuolu.
- LC: Yes.
- KM: All the way to Kiholo and included Nāpu'u.
- CK-P: 'Ae, *Nāpu'u i Anahulu*. [Yes Nāpu'u at Anahulu].
- KM: All the way past Hikuhia. So what's happened, they tried...and I think you did in a series of community meetings?
- SS: We did.
- KM: They tried to say "Kona Coast State Park, what is that? That name means almost nothing to people." So they tried, because it was many *ahupua'a*, six *ahupua'a*, they tried to come up with a name that would at least describe the region. And so Kekaha is the native name of the region, but what you're saying is, that it is important that the *ahupua'a* names be preserved yeah?
- LC: Oh my gosh yes.
- RL: Yes.
- KM: [speaking to Sherrie, Martha, and DLNR staff] You folks are going to ensure that each name will be kept. And Aunty Lei, right at Kaulana, what was the place name that you said, Papa Ka'elemakule said "Don't ever forget that name?"
- LC: Ka'elehuluhulu, that's where the salt works was. That's very, very important.
- SS: Martha, we'll be able to do signage? Can we put signs at each of these places? *Ahupua'a* to *ahupua'a*, you can put signs yeah?
- MY: [agreeing]
- SS: You know, you won't lose these names because they will be there as signs.
- KM: Okay, so at each location, they will put a sign that says which *ahupua'a* it is.
- SS: They'll know.
- KM: And they have interpretive brochures, leaflets, maps...
- SS: And signs.
- KM: ...that will show as your walking the *ala loa*, the old trail, you'll know exactly what land you're in. Even beyond that, like Kāwili Point, in fact, Keawehala, right here.
- LC: That's right.
- KM: Keawehala is...later, you'll see the map that Alan made, that place at Keawehala, the little landing right there is a famous place in one of the old stories. So these names, to preserve them, is very important?
- GK: Yeah.
- CK-P: 'Ae [yes].
- LC: 'Ae.
- VA: Yeah, 'cause if you simply going change it and make it Kekaha, the significance behind it will eventually be lost.

LC: Yes.

VA: Because the younger generation does not know. But by preserving the original name, they will...

KM: Yeah.

SS: Uh-hmm.

VA: Now we have our young children going to *Pūnana Leo*, they're going to want to know the history about this area. And to merely change it to Kekaha Kai Park, it has no significance behind it, it's just a big land area. But the historical background to each one of this part of the land... [jet flying overhead]

GK: If you going to an individual name... [inaudible]

KM: Uncle, *e kala mai, kali...* [jet flying overhead]. *Mahalo*.

GK: People can correct me if I'm wrong, but we have a great significance. To me, if you're going to call the beach park by the Hawaiian name, might as well just set it straight, Kahakai [beach]. That covers from one end to the other end. Kahakai State Park. Now, as we say *kahakai*, it's a beach, the whole beach, but as this individual *ahupua'a* name.

LC: Right, right.

GK: And that I would support. As I said, correct me if I'm wrong.

LC: But rather than [chuckles]...

GK: Rather than you putting an add name...everybody going come say "Hey lets go Kahakai Park." But where is Kahakai Park?

KL: Is that one gate up there the only entrance to this park?

SS: At Manini'ōwali, Kūki'o.

GK: The Kūki'o one, the one going down by Manini'ōwali.

SS: Yeah, Manini'ōwali.

GK: And then this side, Awake'e.

SS: Awake'e, yes, two more entrances. In the final plan, it is this entrance that will be the main one. The one going down Manini'ōwali will also be a primary one. The Awake'e one in between, will be a place where you walk in.

KL: I'm wondering if maybe because we came in the gate [pauses] that would have been coming at Mahai'ula, this is why people feel this is Mahai'ula. But I wonder if in the meetings that you had with everyone, when they talked about coming in that gate over here, then I imagine the people from that area, would have objected to calling this Mahai'ula as well. Because of that being another place.

KM: Uh-hmm, for sure. In fact, that gate is in the *ahupua'a* of Kaulana, not in Mahai'ula.

SS: Yeah, yeah.

KM: So that gate that we came in on, off the main road, is the *ahupua'a* of Kaulana. We slip over, as you see on the map [pointing to interview map number 1], the gate is somewhere in around here, and we slip down.

GK: Almost a mile in, and came back in.

LC: So I see a picture here. The whole concept is under Kekaha.

KM: 'Ae, the region of Kekaha.

- LC: This is the region of Kekaha. And as you come in, you meet Kaulana, Mahai'ula, Makalawena, and you will highlight these districts.
- SS: Uh-hmm.
- LC: That's what you want to do.
- SS: Yes, yes.
- LC: So [speaking with Uncle Val] are you with that? This whole area, Mahai'ula and all that, is under Kekaha.
- VA: Yeah, that's what I was saying.
- LC: But not this *haole* name. [smiling] enough already.
- VA: One question I'd like to ask, you folks said you pondered on it for three years eh. Why didn't you folks include the *Kūpuna*? You folks pondered over it for three years, and if you folks would have included the *Kūpuna*, you folks wouldn't be in the situation that you are in now...
- LC: No.
- SS: We did speak with Hannah Springer, David Roy, and several more people... [end Tape 1, Side A; begin Side B]
- [Upon review of materials translated from Papa Ka'elemakule's writings, Uncle Val concurred with the name "Kekaha" for the larger State Park, with individual *ahupua'a* and site names being preserved through interpretive resources. He notes that Kekaha Kai was never a named used for this area (pers comm. Nov. 13, and Dec. 9, 1997).]
- KM: ...It's my understanding, what State Parks has done, they've worked with Hannah Springer, they worked with some other *Kūpuna*, in fact, Fern Pule?
- SS: Yeah.
- KM: Fern Pule is a part of the Ka'elemakule line? There are people that are somehow tied to this place. So State Parks tried to do some work, but this is the first opportunity, I think that we've had to do something formal like this. And fortunately, we're still in the early process, we're still in a learning time. And that's why we're here today.
- LC: I like the idea of the Kekaha, because that is staying within tradition. Our children will be going to school and they will study, they will see that Kekaha carried a lot of the *ahupua'a*. That, I go for.
- KL: But adding the word "*kai*" is what you object to?
- LC: Right. And while I have it right in my mind, forgive me. The word Kaulana. My aged *compadre* here [pointing to uncle George], he hit the nail on the head. I've been thinking about that Kaulana, next to the salt mines [chuckling]. Salt was a very sacred thing as far as the Hawaiians were concerned. If they went hungry, my grandmother used to tell us this, "*pa'akai* and *poi*," salt and *poi* was their food. The word Kaulana ties in, to me, my mind is kind of wondering why... It was something famous that happened there. Something of importance, and in my age and way of thinking about salt, to me, it was the key. Papa could always...I'd always hear him saying that, "*Hele ana kākou...*" [we're going]. Instead of saying Kaulana, well, we always know, whenever he says Ka'elehuluhulu, we always knew we were going to come and get salt, *pa'akai*.
- KM: 'Ae [yes]. So whenever Papa would say Ka'elehuluhulu, and you were still gathering salt...
- LC: And the fishermen, Ako and all of them would come down here and get the *'ōpelu*. This was where they caught all the *'ōpelu*, and they'd bring the salt, they would get the salt

- and they would *kōpi* [sprinkle salt over the fish for drying] all the fish here, and dry it.
 And then they'd bring it in after the second or...the second day of drying. But I just had stars in my eyes, I'd just gotten married, I didn't notice too much.
- KM: So we're talking 1928-29 there about?
- LC: Right, right. Twenty-five, twenty-six, twenty-seven.
- KM: Okay. So they were still making salt down here.
- LC: Oh yes, they were still making salt.
- KM: How about afterwards, Uncle Kino, do you remember later, Uncle Vai?
- LC: I don't know. *Pa 'akai pau* [salt was done] eh.
- GK: No.
- VA: The only place that I...they had salt, where we used gather was down at Kalaemanō.
- KM: So Kalaemanō was still making salt down there [near the border of Ka'ūpūlehu and Pu'uwa'awa'a].
- GK: The lady who used to take care over here, Auntie Annie Una.
- LC: Yes.
- GK: And she, every year, before rough, she'd go to Kalaemanō and clean up all the *puka* [holes].
- LC: Yeah.
- GK: The *poho* [basins].
- LC: What was the last name?
- KM: Una, Annie Una.
- GK: Yeah. And she used to go down there and clean all, because she would know what month is going to start to get rough. And Kalaemanō is a high cliff. So she goes down there and these *poho* all clean up; all the rock, the sand and everything. Then she sit back, and when rough she'd go back down there and start gathering this salt. She'd go *kānana* [lift out the salt with a sieve-like]
- LC: Yes [chuckles]. He's telling this so well.
- GK: She'd *kānana* and put in the bag, and the water still in there, and go back again, and the sun hitting it and it keep drying. And the layer of salt is just about 1/16th an inch [gesturing with his fingers].
- LC: The crystals.
- GK: So she go down there and *kānana* all this salt and put in the bag. And then the next time, she'd go down there and spend weeks for salt, and she'd come out with plenty. It's pure white, like the paper white.
- KM: 'Ae [yes]. Aunty Caroline, when you were living at Ka'ulupūlehu...
- CK-P: Uh-hmm.
- KM: *Ua hele 'oukou a 'ohi pa 'akai?* [Did you folks go gather salt?]
- CK-P: 'Ae, i Kalaemanō [chuckling]. [Yes, at Kalaemanō.]
- KM: *Mau no nā poho?* [There were many basins?]
- CK-P: *Maika 'i ka pa 'akai.* [The salt was good.]

- KM: So you went also then.
- CK-P: Yes.
- LC: *Maopopo no 'oe?* [You know about that?]
- CK-P: *'Ae maopopo. 'Ohi 'ohi ka pa'akai a ho'i no i ka hale* [chuckling]. [Yes, I know. Go gather salt and then return to the house.]
- KM: So this one, you don't think, maybe after Papa Ka'elemakule passed away...
- GK: Yeah.
- KM: Were those, you know at Kaulana, Ka'elehuluhulu, there is the cement slab with [pauses]...
- GK: Partitions.
- KM: Yeah partitions, they made like *loko*, little pond areas. Was that Papa's...
- LC: *'Ōpae 'ula* [red shrimp], you know Papa used to go and gather all the *'ōpae* for the *'ōpelu*. That's why I got into the battle with Four Seasons, although I don't belong there, but, we used to go down and gather the red *'ōpae*. And that's where I had my first battle with dear old DLNR...
- Group: [chuckling]
- LC: But they help us, so I went to call Waihe'e, the Governor, and got everybody involved. So I even got a letter from the Senate about the burial place. I was so afraid that if they were going to allow that building to be built down there, and they were filling all of the *kāheka* [anchialine ponds and basins], there won't be any salt for the future of our children. And where were you guys? Not you of course, but it just made me very angry with DLNR. And poor things, they're learning, it takes a long time. And they don't come and consult the elders of Kona [slapping her hand on the table].
- And that's the thing that upset me to such a point, that I went straight to the Governor's office... And then I had also, a bill that I introduced to the Legislature about protecting this area.
- KM: Okay.
- LC: So, the subject now, is, what do we do? This is up at Kekaha, but still highlight, Makalawena, Kūki'o, Mahai'ula... Mahai'ula is very important to us.
- KL: Is it still possible that the name, that it might be called Kekaha State Park, and not Kekaha Kai?
- SS: About two months ago, they took the name to the Board of Land and Natural Resources to make the official change from Kona Coast to Kekaha Kai. The Board can always be asked to change it, or shorten it. But I think we would want to go back and also talk with the group that we had discussed it with. With Hannah, with...
- LC: Tell her how we feel.
- SS: Yeah. And get some feed back from them. If they think we should do this, and see what they say. Because it wasn't just one person making the decision, it was a group.
- LC: That's right.
- SS: So that can be brought back to them, and ask them.
- KM: I would imagine that one of the things might have been that Kekaha... There's a State Park at Kekaha, Kaua'i. Or, there's a park facility. So maybe there was a little bit of confusion, or an effort to try and not confuse...

- LC: Oh, that's right, that was brought up. Where did I go for a meeting that that was brought up.
- SS: You came to one of the public meetings.
- LC: Yes, and that was brought up. Ahh!
- KM: But, you know, that's what's so amazing, and you'll see it when we pull this report together. In the wonderful story that Kihe wrote about Mākālei and the *ana wai*, the water cave *mauka*, below 'Akāhipu'u. He tells the story how Kekaha here and Kekaha, Kaua'i share the same name. There is a history of that also.
- LC: Ohh!
- KM: All the way from Hawai'i to Kaua'i. It's so wonderful to see how the stories were preserved.
- LC: So, we don't want to jump to conclusions here. [speaking to DLNR representatives] You know how we feel. We cherish this.
- SS: Yes.
- LC: And we cherish all of you. I do. And I know my *kūpuna* and my children do. Because, this is for the future of our children. My nephew sitting over there [gesturing to Richard Lincoln], he's a part of these grounds. He would have been good to be working with you folks. And if there's any need, he should be hired...
- RL: I've got a question. If Uncle George was to ask Auntie Lei, "Meet me at Mahai'ula." Where would they go? This beach is Mahai'ula.
- GK: We would come here, this is Mahai'ula.
- LC: Yeah.
- GK: And that's the point that I have pointed out earlier. By having...keeping the name, so if my grandson tell me, "I going picnic." I say, Mahai'ula, Makalawena.
- RL: Then you would come to Mahai'ula.
- GK: I not going to Kekaha or where ever.
- LC: But the problem that they're having now, DLNR and the researchers. and we have to be very careful... Now that we've got this as a park, we've got to work with them. Let's not get angry, let's try to find out a way that we can show Mahai'ula, and let them work this out, now that we've brought up our thinking. And then, let them suggest. Again, Mahai'ula seems to be the key. Kekaha, I agree. And Kekaha ties in with Kaua'i.
- KM: It's interesting how the story came about. But the *kūpuna* recorded it.
- LC: So, how are we going to settle this? [pointing to the map] Kaulana runs from there, all the way up. Mahai'ula is not Kaulana. Mahai'ula has its own boundary.
- KM: 'Ae [yes]. You can see the entire *ahupua'a* are on this map here. And they run, as you said, coming up towards 'Akāhipu'u, in fact the peak of Makalawena is at 'Akāhipu'u. Mahai'ula comes up and then they join and are cut off by Ka'ūpūlehu, *mauka* of there. So the run this entire distance here.
- GK: Well, according to the legend from *Tūtū* Palakiko [Kamaka]. An old, old man, and Palakiko is the one that brought *Tūtū* Ka'elemakule, when he died, on the sampan to here. And he, according to this legend, the significance of all these names, there was a man of each king. And in order to get more land, they have to...there is a runner himself. So this runner, maybe Kekaha, went run only so far, then another one just cut up. So the biggest tract in Kona here is Ka'ūpūlehu. So that's how Ka'ūpūlehu went run

right across and then he beat Mahai'ula, beat all these other people and keep on going, and then he was struck by Kaloko. Okay, Kaloko went up and Ka'upulehu and Kaloko meet together. Keauhou was the fast runner, and he went from Kona here, all the way to Hilo [meeting near the summit of Mauna Loa]. And that was the legend that Tūtū Palakiko Kamaka gave me.

- LC: That was the same story that Papa Ka'elemakule told. By the way, Papa Ka'elemakule was a news reporter for Kona. So he wrote everything down, the happenings, you know. And this time that he wrote about himself, he mentions all these names.
- GK: This was all the runners. And I don't know if his name was the runner, Mahai'ula, and all this places. But they were trying to beat one another. So when they run, this Ka'upulehu came right across, boom. And the next one, and the next one, and that's how 'Akāhipu'u came up. So that was the legend that Tūtū Palakiko talked to me about.
- KM: Hmm.
- LC: Can we take a break? [group breaks]
- KM: A moment ago, Aunty Lei and Aunty Caroline were talking about their youth, their time when they were young.
- CK-P/
LC: [chuckling]
- KM: Aunty Caroline, you said "*Mamua, i kou wā li 'ili 'i...*" [Before, in your youth...]
- CK-P: *Ho 'i wau, noho i Kaupulehu me Kahiko a Mahikō.* [I went to live at Kaupulehu with Kahiko and Mahikō.]
- KM: 'Ae, a ua kama 'āina 'oe me kēia wahi? [Yes, and were you familiar with this place?]
- CK-P: 'Ae [yes].
- KM: *Kama 'āina.* And Aunty Lei, *ua male 'oe iā Joseph* [you married Joseph?]
- LC: 'Ae.
- KM: *A ua hele ma ka wa 'a* [and you traveled here by canoe?]
- LC: *Hele au i Hilo, akā nui ka 'ohana, a'ohē ke... My-my nō ho'i. Ho'i mai nei māua i Mahai'ula. I Kailua, komo māua i ka wa 'a, hele mai nei māua ia nei. A mehameha nō.*
- I went to Hilo, but there was so much family, there was no... Everyone was making a big deal. So we came back to Mahai'ula. At Kailua, we got on the canoe, and we came here. It was so quiet [uninhabited].
- CK-P: You two went honeymoon eh [chuckles].
- KM: *Ho 'onanea* [Relaxing – chuckling].
- LC: Looking at the stars.
- KM: *A kēia ka hale a Papa Ka'elemakule?* [And this was the house (pointing to Kalāhikiola) that Papa Ka'elemakule made?]
- LC: 'Ae [yes].
- KM: 'O wai ka inoa o kēia hale? [What is the name of this house?]
- LC: Hmm [thinking] what is it now [pauses].
- KM: *Hiki ia 'u ke kōkua?* [May I help?]
- LC: Yeah.

- KM: Kalāhikiola?
- LC: Kalāhikiola. This house was build by Papa with his *hānai* mother.
I was quite pleased at the concept. And the lumber coming by canoe now, and landed here. So that lumber is way, way, way back. So the house was built, and they had quite a *lū'au* out here. And Papa named it Kalāhikiola. And there's a church up here named Kalāhikiola. I'd wondered why we became Protestants [laughing]. But all my children, they joined Papa's church, and all my *mo'opuna* [grandchildren] are with the *Kalawina*.
But anyway, here, we spent our honeymoon, and that's when I learned about the salt. I couldn't understand what they were doing.
- KM: You described something earlier, when we over at the salt works, that in the night time or something, that they watched. Could you share what you remember about the salt making over there? And also, there was a canoe house there too?
- LC: There was sort of a special canoe that belonged to Papa. I noticed nobody touched it. And when I came here and when I saw that this morning, I was...*hā'upu* [remembering]. I don't know where that...you see, it's kind of high now. [Before], it was kind of low and he used to slip the canoe in.
And we used to love, when he wasn't around, my husband and I would glide the canoe on the banana. They would put banana underneath so it would be slippery. That's his idea. But I think that was Papa's canoe. He had a special canoe that he left right there.
- KM: So this again, is in the 1920s?
- LC: Yes, yes.
- KM: Later 1920s.
- LC: Yeah.
- KM: There's an interesting thing, when we were talking a little bit about place names. Ka'elehuluhulu, did anyone hear how would you translate Ka'ele-huluhulu? *Pehea ka mana 'o* [what does it mean]?
- LC: I have no idea what it means.
- KM: Uncle Kino, *maopopo 'oe, ua lohe paha 'oe i ka mo'olelo* [do you know, did you perhaps hear a story]?
- LC: *Pehea ka mana 'o* [what does it mean]?
- GK: Well, this is the first time I ever hear of Ka'elehuluhulu.
- KM: Oh, so you never heard that name when you were young?
- GK: No.
- KM: *Pehea*, Aunty Caroline?
- CK-P: *Like me ia 'u* [it's the same with me].
- KM: A'ole [didn't hear]. Uncle Val?
- VA: [shakes his head no]
- KM: Let me just I share with you, so that you can hear what Papa and Kihe wrote?
- CK-P: Uh-hmm.
- KM: Ka'elehuluhulu. *O ka'ele, 'oia ka wa'a o waho*. *Ka'ele* is the canoe's outer hull. *Ka'ele*. *Huluhulu*, frizzy, frazzled like.

LC: Ohh. That was his canoe house.

KM: And what they said was, how they carried the canoe. Do you remember now, maybe hearing something? That they had to *hāpai* [carry], when they would get the canoe into the water. There was water, then a stone *papa* [flat area] and they had to lift the canoe over to get out to the ocean. And so Ka'elehuluhulu, the outer hull of the canoe was frayed by carrying it over the rock there.

LC: Ahh.

KM: And so that's why. And that's something else that's interesting. Kaulana is also a landing place yeah.

LC: Uh-hmm.

KM: Of a canoe.

LC: Right.

KM: That's what that word also means, *kaulana*. It's a resting place or a landing place.

CK-P: Uh-hmm.

KM: *Pololei, ua lohe paha 'oe* [is that right, have you perhaps heard]?

CK-P: 'Ae [yes]. [chuckling] *Lohe paha, a ua poina* [heard, but perhaps forgotten].

KM: *A poina* [forgotten].

CK-P: 'Ae.

LC: Kaulana is sort of a... I'd hear it every now and then. Papa while they're talking to Palakiko them and...

CK-P: Kaulana, that's not something famous?

KM: Yes, famous perhaps.

CK-P: Yeah, I think that's what it is. That's a famous place for them, you know. That's why get that name, Kaulana.

LC: Who was that Tahitian boy, he was very active with the canoe races?

Group: [suggests names]

LC: No, in fact that was Papa's *hānai* [ward].

KM: Oh, so this is in the 1930s then. He's *hā'ule* [passed away] already?

LC: He had this boy that was taking care of him whenever he came, and also at the burial, with Palakiko and [thinking]...

KM: Moku'ōhai?

LC: Moku'ōhai, that's a very important person. He's the builder of the canoes. Oh, another thing that I remember down here, was those trees, *kou* [*Cordia*]. There were plenty *kou* trees here. And this is where Weeks used to get all of his lumber. [speaking to Kepā] And funny, we talked about that when you're letter came, 'cause we were having this big show at Hulihe'e Palace. We were talking about the calabashes and all. And we have some pieces that Wiki [Weeks] made, and I said, you know, that came from my husband's family's property down at Mahai'ula. And then they'd say "I know where that is." See, they know Mahai'ula, they know Kūki'o, they know all those names.

KM: 'Ae [yes]. I see in the ground now, there's one *loulou* [*Pritchardia*] palm here.

LC: Yeah.

- KM: Were there *loulu* here before?
- LC: Yes, *loulu*. My mother-in-law used to weave. They had *loulu*, and I saw the crown [the *piko* or center of the hat], amazing the crown [said with emphasis]. It was growing down here. But they had *loulu*, and they had that *milo* [*Thespesia populnea*].
- CaC: How about *hala*?
- KM: Had *lau hala* anywhere?
- LC: Had *lau hala*.
- KM: Where was *lau hala* growing, do you recall?
- LC: Well it was sort of a shade like, it was behind the house. Yeah, it was behind the house. We had *lau hala* [pauses thinking]...
- KM: There's a walled area at Keawehala over there [pointing north of the Magoon house], where the old water mill used to be.
- VA: Yeah.
- KM: Was there anything growing in there that you folks remember, other than the *niu* [coconut]?
- VA/
- GK: Only the coconut.
- KM: Only the coconut trees.
- LC: The coconuts. I know that too.
- VA: You know, the wind charger was right next to the house, and the wind mill was to pump water.
- KM: So the wind mill was in the walled area?
- VA: Yeah. And then the wind charger was behind here [next to the house].
- LC: I don't remember those things.
- KM: Well, those were in Magoon's time.
- LC: And see, these boys used to play down here [gesturing to Uncles George and Val].
- VA: Uh-hmm.
- LC: 'Cause I know that Papa used to have brackish water.
- KM: Where did your water come from?
- LC: You know, I know that we had brackish water, we had to bath with that. We used to pull it up with the bucket.
- CK-P: [chuckles]
- LC: I used to love that, it was something different.
- KM: Was there a well close to the house, that you remember? Or was it off on the side somewhere?
- LC: Oh, we took a bath away from the house. And we'd play, just like we were from [laughing]... And my husband said to me, "You're going to drink that water." And I said, "No way!" And I drank that water, so thirsty, then he said we'd have coconut. [thinking] I can't remember the Japanese man's name, or Chinese, when we stayed here. And before we came up, he had the coconut all ready for us. Oh, what a honeymoon that was.

- Group: [chuckling]
- LC: I think that's where he [pointing to her son John] was conceived [laughing].
- JK: I remember.
- Group: [laughing]
- LC: So, the water, the plants...but there were a lot of the *milo*, plenty of that. So when we went to the Palace, and I noticed the *milo* trees, I said, "Did you folks get that from Mahai'ula?" They said "No, we didn't get that from Mahai'ula, everything's from Mahai'ula." [chuckling]
- KM: Was there *kiawe* down here? Do you remember *kiawe* when you guys were young?
- LC: I don't remember *kiawe*.
- CK-P: Yeah.
- KM: *Kupuna, i kou wā li'ilī i Ka'ūpūlehu, ua lo'a?* [Grandmother, in you youth at Ka'ūpūlehu, did it have?]
- CK-P: Yeah. we go pick for feed the donkey. We had donkey that time, that's what they eat. Pile up the *kiawe* seeds.
- KM: So *kiawe* down here...
- CK-P: Yeah.
- KM: ...at least by the turn of the century.
- LC: They would know.
- GK: We used it.
- LC: They needed *kiawe* for fire wood.
- CK: Yeah, of *imu* [under ground oven] like that.
- KM: And Aunty, you'd feed the *kēkake* [donkey]?
- CK-P: Yeah, *kiawe*.
- KM: The *hua*, the seed eh.
- CK-P: Yeah [chuckling]. Next morning, saddle the donkey, going up Kalaoa [laughing].
- KM: 'Ae. You know, one of the very important features, important family places here, is a little *mauka*, the *'ilina*, the burial site.
- LC: Oh yes.
- CK-P: *Ai laila o Mahikō* [Mahikō is buried there (at a cave near the shore of Kaupūlehu).]
- KM: 'Ae.
- CK-P: *Mahikō ai laila, Kahiko, ho'iho'i iāia i Pu'uanahulu.* [Mahikō is there, Kahiko, she was taken to Pu'uanahulu.]
- KM: *Iuka e* [to the uplands]?
- CK-P: 'Ae.
- KM: Papa died in 1936, I believe.
- LC: Yeah, I believe.
- KM: Okay.

LC: Now, Magoon...after the purchase by Magoon, of this property...

[pauses looking through some papers] I happened to be at the OHA office, and this was given to me. It was sent to Ruby McDonald [OHA-Kona liaison]. It was sent to another OHA person, but nothing was done about it. This is where, you know, it's so sad. We're struggling and struggling to find out the history of these areas so we can pass it on to you folks. And I'm more worried about my grandchildren, that they know. So their grandchildren's children and other grandchildren will know. We parents have to watch out for these things, so that they will know that that belonged to us, and that they would cherish it. And to me, I can die tomorrow, now that I know. I told my son and my daughter, "Now I can die, my bills are all paid, and they know their heritage. That's rich." [begins reading the letter dated October 23, 1993]:

Dear Mrs. McDonald – Saw your public notice in the October 1990 issue of Ka Wai Ola o OHA. I am not sure that the burial cave that I'm going to mention is within the boundaries of the project, but to me, it is important that it be known.

I'm going to give you a copy of this sir [speaking to George Atta], it falls in your category.

I am not sure that the burial cave that I'm going to mention is within the boundaries of the project, but to me, it is important that it be known.

Again, I repeat that.

About seven years ago, I wrote this to Clarence Ching of OHA... My uncle Alfred K. Magoon, who raised me, once owned the land known as Mahai'ula. His grandchildren sold it a few years ago.

This land was sold for a thousand dollars. I'm telling you this [not the letter].

But there is a Hawaiian burial cave located on the land, and I was worried that whoever bought the land, would bulldoze it for a golf course [said with emphasis]. The cave was very sacred to Uncle Allie, which we called him... None of us kids were allowed touch even one stone in the vicinity of the grave. I can tell you a story of some Japanese fishermen who tried to move the stone to the entrance, that would raise the hair on the back of your neck.

It has been a long time since I've been to Mahai'ula. As I remember it, face the mountain, with your back to the bay, walk about 200 yards along the left side of the property, and there will be the cave. It is not a cave as you view it. It is covered with rocks. I was only there twice and I caught hell each time. "Stay away from the burial cave!" yelled A.K.

Whether this is what you need or not, I don't know. But, I do know that it, the cave should be treasured as much as Uncle Allie did.

And this came from Eaton A. "Sonny" Gorelangton, Lt. Colonel USAF, retired. And his brother Burt, lives at Ho'okena. If you get the name Gorelangton, and you want to further your information on this... But, I think all the necessary information is here.

KM: 'Ae. Aunty, you have your personal story about what happened here. And I think that that's important to record. What happened at that cave, when Papa...?

LC: [briefly shares general history and testimony she presented in support of the Burials Bill No. 3296]

...On behalf of my children, grandchildren, and their relatives, of the late John Ka'elemakule. Former owner of the now, Magoon property of Mahai'ula, located south of Makalawena, north of Kailua-Kona Airport. The Ka'elemakule burial plot is a cave situated in a remote area there at Mahai'ula. This is where the family is

interred. It is with the hope that this site will be well hidden from the eyes of men. That, is now our concern...

With the growth of development in Kona that we are now experiencing, a change which concerns us all, this development, left unchecked without some safeguards to the burial sites of our people, will allow one more affront to the dignity of our traditions and connection to our history and past. Let our family rest in piece. We ask that the sacredness of our burial site here as well as those on all islands be preserved. Thank you for this opportunity to be heard...

...So, this is a letter, I wrote.

- KM: But Aunty, how about, you said, when we spoke before, when we did our earlier interview. You shared with me that before Papa died, he had a vision, that Kona was going to change.
- LC: Yes!
- KM: And that he took the graves of the family...
- LC: Yes.
- KM: From the area now Jolly Roger Restaurant, yeah?
- LC: Yeah. Jolly Roger, that property did not belong to us. Papa had several sons, but his last two children, he gave land too...My husband and I also had the area where the sisal is along Palani Road...
- Makai*, down the beach, he gave all of that to John Ka'elemakule [husband Joseph's brother]... [briefly describes land history] ...But, he said, when I die, I am to be the last one to be buried at Mahai'ula. I want my body, and the bodies of all my family to be put in (lovely) *koa* boxes. I didn't know, he'd already ordered it from Charley Moku'ohai. I don't know where they got this *koa* from. But, they were already, and the graves were all dug up, and they came from Kailua to here and buried it up here.
- And the last thing he said to me, "When I die, I am to be the last to buried there." So it means...now you don't need to put this down... [Aunty describes her thoughts about being buried in the new Veteran's Cemetery at Awake'e, so that she will be close to her family and the land of Mahai'ula.]
- This is meaningful, that he would be resting here. so afraid that they would destroy his family. He was more concerned...he was a family man, and that the way I raised my children. I want them to be close to each other, because the richness of our family is the highlight of my life, and that's the way Papa was raised. We were very, very close.
- But that was his wish, and that's what I did. And I think that's why I'm living to be 84.
- KM: 'Ae.
- LC: Don't you agree?
- KM: *O pololei 'oe* [Oh, you're right].
- [see also excerpts from individual interviews with Aunty Lei, of March 5, April 9, and May 23, 1996.]
- KM: Now, Uncle Val, as a young boy at that time, and Uncle Kino also... And Aunty Lei you'd shared with me before, and I'd like us just to confirm this for this story, because this is something that is very meaningful to this process. You had said that it was perhaps "three nights, that they gathered all of the iwi...?"
- LC: This was sad. It was done at night, very secretively. It was very secretive.

KM: So they exhumed the *kūpuna* that had been buried. And Papa's earlier wife?

LC: Yes, wife, the family, the sisters.

KM: Yes, Kauha'ihao.

LC: And the Kauha'ihao...luckily, they didn't exhume the one up further.

KM: Yes, at Hōlualoa.

LC: Hōlualoa, the one we went to see.

KM: Yes.

LC: 'Cause we had two graves. But because that was in our. my husband's land, that was preserved. Today, we have that preserved.

So I think all the blessings I've had all these years, came from what we did. We brought Papa here, and we did exactly what he wanted. But the man in charge, was Moku'ōhai, Palakiko, and I'm trying to remember the other name.

KM: James Ako, was a part of it?

LC: Yeah, Uncle Jimmy. And another name.

KM: So that's their father [indicating Uncles Kino and Val].

LC: Yeah, I know Uncle Jimmy and [pauses]... Richard, help me.

RL: It was before my time.

Group: [laughing]

KM: So you folks brought everybody. Left Kailua early in the morning. Uncle Val, do you remember?

VA: When they came, when Aunty came, my brother Elmer and Rachel...

LC: Elmer, yeah! Elmer, bless his heart.

VA: He and Rachel came over with dad.

KM: So you folks took all of the little *pahu koa* [*koa* boxes] with the *iwi* [remains]?

LC: Oh, they were sort of a very, very... [gesturing a size of two feet in length]

KM: I think you told me that maybe as many as twenty came out, yeah? And Papa was the last one.

LC: Yeah, many. That whole area was nothing but graves.

KM: Ahh. This is where Jolly Roger is now.

RL: Waiaka Lodge.

KM: 'Ōneo Bay is right on the side there [Reg. Map 1676 identifies the property as being in or next to LCA 2334 awarded to Kupuna].

LC: And he brought here, buried, and then we all went home.

KM: When you folks were young, were there stories...? You'd mentioned that they used to fish for 'ōpelu out here, and they'd gather *pa'akai*. What are some of your recollections of the activities that occurred here at Mahai'ula?

VA: In my case, Aunty Una and her husband...

LC: Yeah.

VA: ...used to go for 'ōpelu over here.

LC: Yeah, that's right.

VA: And like Aunty Caroline, it was after Aunty Caroline's time, see.

CK-P: Uh-hmm.

VA: And they used to dry their 'ōpelu over here.

CK-P: Yeah.

VA: And then they used to take 'um up Aloe Ahuna's store.

CK-P: Yeah, Ahuna [chuckling], Kalaoa.

VA: And they'd sell it eh. But they make good dry 'ōpelu.

CK-P: Get the money, buy *kaukau*, go home.

LC: We used to exchange for *poi*.

CK-P: 'Ae, 'ae.

VA: Yeah.

KM: And you'd mentioned that they used to dry their fish over here, in the walled area [pointing to the enclosure at Keawehala]?

VA: Outside of that.

CK-P: Yeah.

KM: Outside. So just past the spring area, on the rocks over there?

VA: Yeah.

CK-P: On the rocks.

KM: There's a stone platform-like, out on the side here. Does anyone remember what this platform was?

CK-P: That's not one school, or a church before?

GK: That's before our time [laughing]

VA: That was before our time.

CK-P: Yeah. But still get the ground.

KM: Did you remember, Uncle Kino, this *kahua* [platform]?

GK: No. How I knew down here, was when I started working with the ranch [in the 1940s] and I used to take my round down here.

LC: You used to come with Papa eh, Jimmy?

GK: [pointing to Uncle Val] He used to.

VA: I never did come with him, but I did come as a fisherman, I started when I was young. I used to go all over here. And there were *ko'a* [fishing stations] that were outside here.

LC: There's a *pōhaku* [stone] someplace here [pointing to an area near the shore]?

KM: Yes, the *pōhaku*. Pōhaku-wahine or Pōhaku-o-Lama.

GK: Outside here.

LC: Papa would say, don't swim around that, you won't have any children [chuckling].

KM: [laughing] This stone, right in the water here, yeah?

VA: Yeah, that *pōhaku* right there [pointing to a stone about 30 feet off shore].

KM: [speaking to the group] Do you see the stone there, the dark spot in the water [the stone was submerged at high tide]?

Group: [yes]

KM: Pōhaku-o-Lama. Aunty Lei, you heard something about that stone yeah? What did Papa tell you?

LC: He never really said anything.

KM: But you said, *ma'i wahine* [a woman's menstrual period].

LC: Yeah, *ma'i wahine*. But that's well noted, we all know that. People that know Mahai'ula, they all know that. That you *ma'i wahine*, don't you dare go in the water.

CK-P: Get *ma'i wahine*, you no can go and touch that stone. *Kapu* [it's restricted or sacred]!

KM: *Kapu*?

CK-P: 'Ae.

LC: It's *kapu*! So you guys going swimming, and you get *ma'i wahine*, don't you dare, because...well [chuckling]...

CK-P: [laughing]

VA: I would like to share my *mana'o* [thoughts]. You see, my older brother told me, "Hey, you don't go over there, you know. That Pōhaku-wahine." So I said, "How you know?" He said, "Oh, when get *ma'i*, the water come all red eh."

CK-P: Yeah.

VA: So I thought, maybe get plenty *namako*, you know that sea cucumber? When you step on it, get that purple-like color. So I dove right around and I couldn't find anything, and that was my satisfaction that it was true. The water turns red certain time of the month eh.

LC: Not spoiling your story, and that's why I'm trying to remember the Japanese name of the man, or the Chinese man that lived here, was the caretaker. [smiling at Richard] And you're not helping me.

GK: Before your time [laughing]

Group: [laughing]

RL: Was it Kakazu?

LC: No, he was an old man, he died here. Well, he said to me on the side, "Don't listen to this Hawaiians, you know why they tell you not to go over there? Plenty 'ū'ū over there."

Group: [laughing]

LC: 'Ū'ū, and what's that kind of red-skin fish?

VA: 'Āweoweo?

LC: 'Āweoweo. I said, "Why can't I go swim over there?" See, I got nose, I want to know why. And my husband said, "Yeah, let's go ask him "Why?" He laughed he said, "You can go swim, no problem." But Joe said "No, bumbye jinx."

Group: [chuckling] ... [end of Tape 1, Side B; begin Tape 2, Side A]

LC: [describing what the caretaker had told her] ...He told me, "You know why they don't want nobody to go around there..." Who ever passed that story, and Hawaiians were

great at that! That's where the Hawaiians get all the 'ono [delicious] fish. The 'ū'ū, and any red fish, that's where they were. He mentioned another fish. And I brought that up to Papa and he just... He always does this with his face [raising eyebrows and looking] "Oh 'ae, 'ae, aloha nō." He never ever said yes or no.

- Group: [chuckling]
- LC: He never said yes. And I said "Papa, I hear..." You see, I couldn't speak Hawaiian. I said "Papa, I hear when you *ma'i wahine*, you not supposed to go..." "'Ae, 'ae." "And I hear that the 'ū'ū, get plenty 'ū'ū." "'Ae, 'ae [nodding head in agreement]." When he smile, I know that it's so. He never really said yes, neither did he say no. So this is the secret that a lot of the Hawaiians would get away with. And all the haole, and *hapa-haoles*, everybody would believe those Hawaiians. These Hawaiians were great story tellers. [laughing]
- KM: Did you folks ever hear the name "Pōhaku-o-Lama?"
- LC: Oh yes. That stone.
- KM: So you heard that name?
- LC: I heard that name.
- KM: Aunty Caroline, *i ka manawa a mākou i hui ai ma Ka'ūpūlehu, ua kama'ilio mākou e pili ana kēlā pōhaku, he 'ano kū'ula. Ho'omana 'o 'oe, 'o Uncle Ka'ōnohi...?*
Aunty Caroline, that time when we met at Ka'ūpūlehu, we spoke about that stone, that it was like a fishing deity. Do you remember what Uncle Ka'ōnohi [said]...?
- CK-P: Only what me and Joe Maka'ai know, the Kalaemanō. That one *kapu* [sacred, restricted].
- KM: 'Ae, *kēlā wahi* [yes, that place].
- LC: *Kapu kēlā. No ke aha?* [That place is sacred. How come?]
- CK-P: *Ka po'e o kēlā wā kahiko...* [The people of that ancient time...]
- LC: *Mālama* [protected]?
- CK-P: 'Ae [yes].
- LC: *Mālama lākou i kēlā wahi no lākou iho?* [They took care of that place for themselves?]
- CK-P: 'Ae.
- KM: *Kēlā manō* [that shark]?
- CK-P: *Kēlā manō, 'oia ka mea, a'ole mamake ka hehi ana o ka po'e [kuhi ana me nā lima] ma laila. Kapu kēlā wahi. No ka mea, no kēlā manō.*
That shark. It's the one, it didn't want people walking over it [gesturing with her hands] there. That was a sacred place. Because of that shark.
- LC: *No ka manō* [for that shark]?
- CK-P: 'Ae. 'Oia ko mākou mea hiki 'ole ke hele ma laila, ma kēlā wahi.
Yes. That's why we couldn't go there, to that place.
- LC: So she said... You explain it, you explain it so good.
- CK-P: *A'ole hiki ke a'e maluna* [couldn't walk on top of it].
- KM: 'Ae. At Kalaemanō, it was *kapu*.
- CK-P: 'Ae.

KM: Had a shark and it was sacred to that place at Kalaemanō. There was a cave eh, underneath?

CK-P: Yeah, 'ae.

KM: And had water underneath, in the back.

CK-P: 'Ae.

KM: But the *manō* [shark] would *hānau* [give birth] there.

CK-P: 'Ae. *Inā 'oe makemake e hele, hele 'oe ma 'ō, a'ole hele ke hele maluna.*
Yes. If you wanted to go there, you had to go around [gesturing beyond the area], you could travel over [the cave where the shark lived].

KM: You couldn't walk, you had to go around that side, Kalaemanō.

CK-P: 'Ae.

KM: But over here, at Pōhaku-o-Lama, Uncle Val, when we were talking at Ka'ūpūlehu that last time, did you folks ever hear about a shark that the old man Una would fish with?

VA: Yeah, he would go along with that shark.

KM: Right out here, he would go eh?

VA: Yeah. And he would bring...there were several times that we came in here, and they were ready with the net. I was unaware that they brought the school in so I brought my canoe in, and I filled gas over there [pointing to the area of the northern-most point in Kaulana], not realizing that they were waiting to go *puni* [surround] eh. And I turned the boat around and took off eh.

LC: [chuckling] They could kill you.

VA: And I heard them yelling at me. But it was a big school of *akule*. But, it was his *kū'ula* [fishing deity], and that *manō* [shark] brought it in.

KM: So he would fish with the shark?

VA: Yeah.

KM: The shark would like, drive the fish in.

VA: Yeah.

CK-P: Before they go out on the boat, canoe, they all call us. We all gather together, *pule* [pray]. *Pule mua* [pray first] before they go out.

KM: Hmm. *Pehea*—what does the name Mahai'ula mean? Has this stone here, Pōhaku-o-Lama, and the water would turn red a certain time of the month in the year...

LC: That's why this place got this name.

KM: You think so? Did anyone hear, what does Mahai-'ula mean?

LC: I think, that's why I asked Papa...

GK: I think that's the significance of Mahai'ula, the name.

KM: Hmm.

LC: I asked Papa that. I said, "Papa, why do they call it Mahai'ula?" He said, "'Ula is red." I said, "What's red over there?"

CK-P: *Ma ka 'u no 'ono 'o wale nō, ke 'ano wahine, like me mākou, lo'a ka ma'i wahine, a'ole hiki hele ma laila.*

In my own thoughts, the woman, like us, when they have a menstrual cycle, they can't go there.

LC: 'Ae [yes].

KM: A'ole hiki, kapu [Can't, it's sacred].

LC: Kapu. But, when I said that to Dad, Papa Ka'elemakule, I told him what I learned. I didn't tell him by who—he'd fire that Japanese guy [smiling and raising her eyebrows]—and I told him, "Papa, they did that to stop people from going there 'cause that's where the 'ū'ū hangs out." And it's always red because there's a particular kind of limu [seaweed] that grows on that rock that they like. So just like a female, you know, the female will go to something that she likes. And so they found something sacred, personal. So they said keep the women out of there.

KM: Oh those days yeah [chuckling].

Group: [chuckling]

LC: But Hawaiians were very [secretive]... I was so interested in all this double talk.

CK-P: And those days you know, we get scared too eh. Because they tell you, "You get sick [ma'i wahine], no go over there, you stay home." [chuckles]

LC: [laughs]

KM: Yeah. You know, this special place, Mahai'ula, and that stone, Uncle Val, you have something very specific that you wanted said about that stone, that they take care, right?

VA: Yeah.

KM: That they don't... [pauses for Uncle to express his mana'o]

VA: I would strongly suggest to DLNR to cordon off that area. And whoever's going to stay here, that they be aware that they never have anybody even to get on there, or sit on that rock.

CK-P: Hmm.

VA: I feel it's desecrating the history of that rock.

KM: There was also something that you'd said about, "no mooring, no boat..."

VA: Yeah, nobody.

KM: Boats shouldn't use it to anchor, it's kapu on top of that stone yeah.

VA: Yeah.

LC: Who is the person from the State here.

KM: Casey.

LC: Casey, you heard that?

CaC: Yes.

LC: Otherwise we'll string you up on that kou tree [smiling and laughing]

Group: [laughing]

RL: Can you bar people from anchoring here?

LC: On that particular stone.

VA: The stone.

CaC: Perhaps make a fish management area, and put a restriction on mooring.

- KL: The idea of putting a cordon around it, could be done, and we can also prohibit mooring in a certain area. Boating regulations can manage that, it doesn't have to be by fishing regulations.
- KM: Hmm. One other thing about sacred places that are on this land, that are very specific sites. We were talking about the burial cave up here. Did you hear the name Kolomikimiki?
- LC: Yes.
- CK-P: *Po'e menehune wale nō. 'Ae, kēlā manawa, nui ka po'e menehune.*
It's for the *menehune* people. Yes, at that time, there were many *menehune*.
- KM: *Mamua, ua 'ike 'oe... [before, you saw...]?*
- CK-P: *Nui nā kukui hele pō. Kukui hele pō. [There were many torches. Torches in the night time.]*
- KM: *Hele ma ka ala pi'i uka? [going along the mauka-makai trails?]*
- CK-P: *'Ae ma ke ala lihi kai. Hele ma ke kai. [Yes, on the trail at the shore. Going along the shore.]*
- KM: Ahh. Aunty was saying that she remembers that before...
- CK-P: *But, a'ole hiki iā 'oe ke kahea iā lākou, na lākou i ke kai, me ke kukui, yes.*
But, you can't call to them, they are along the shore with the torches, yes.
- KM: *'Ae [yes]. Along the trails...*
- CK-P: *'Ae.*
- KM: ...that would come from the mountain down along the ocean, when she was a child...
- CK-P: *Po'e menehune [menehune].*
- KM: She's calling them *po'e menehune [menehune]...*
- CK-P: Yeah.
- KM: But it was people with torches, night processions, would come along.
- CK-P: *'Ae.*
- KM: And along the *lihi kai* [shore line]?
- CK-P: *'Ae, along the lihi kai.*
- KM: Come along the place here.
- CK-P: *Ai no mākou me ko mākou kākā, Mahikō mā, waiho mālie iā lākou.*
We would be there with our grandparents, Mahikō them, who'd say leave them alone.
- KM: *Waiho mālie, leave them alone.*
- CK-P: No lākou ke ala nui [the trail is theirs].
- KM: *'Ae. The cave today, Papa Ka'elemakule wrote, that the name of that cave, the burial cave, was Kolomikimiki. It was in one of the early writings that he and Kihe did. Who owns that cave today?*
- LC: The State.
- KM: Does the State own that?
- CK-P: I think the State take over.

KM: Not the Catholic Church, or Solomon Ka'elemakule's descendants?

LC: No, no.

KM: So your *'ohana* does not still own that burial cave.

LC: No.

RL: Not that I know of.

KM: No.

GK: This is one whole tract of the State.

LC: Although, wait a minute, I think I need to that out. 'Cause that belonged to my nephew [Solomon].

RL: Agnes Lui...

GA: No, Agnes said that her mother gave it to the Catholic Church.

KM: So they gave it to... I'll go look in the Bureau of Conveyances, in the books to see.

LC: Her mother [pauses]...

KM: Pelekāne eh?

VA: Yeah, Margaret Pelekāne.

KM: Married Solomon Ka'elemakule.

LC: Yeah, Agnes' mother was Margaret.

VA: Margaret's father was Pelekāne.

LC: You're right. Without the permission of the larger family, it was sold... Kepā will you please check that out.

KM: Yes.

[further discussion removed at the request of the family]

So that is a very special place to the family though.

LC: Yes, it's special to me... It should have been given to the *Kalawina* [Protestant], under their care.

KM: Ahh, 'cause that was Papa's *ho 'omana* [religion].

LC: Yes, that was his church... Anyway, that's under your hands now.

VA: Kepā.

KM: 'Ae.

VA: I would strongly...you know, they say DLNR or the State owns that. That they would cordon off that area and leave it as is.

SS: Yes.

VA: Put a fence or buffer around it so that people won't go over there.

LC: Oh, you know what, now that you talk about the fence, Magoon, when he took over, he fenced that whole area.

KM: *Pā pōhaku* [stone wall] eh?

LC: *Pā pōhaku*.

KM: It has a stone wall around it.

LC: It's a start.

SS/AC: It's still there.

KM: So Magoon put that stone wall around it?

LC: Magoon put that there. Nobody else did.

SS: Yeah, it's still there.

LC: He put that there...It is my business as far as the burial plot is concerned, which is on that property. But I leave that entirely up to you to do the research on that...and that it be protected by the State...

KM: Okay. Now, as we come back down here, was there a stone wall around here, that you remember for a long time?

LC: Yes, yes.

KM: So had the stone wall around the house lot area, here?

LC: I remember a stone wall, right along here [pointing to the area fronting the shore].

KM: Okay. Now from here, just on the side of Magoon's house, which we're in right now, there's this *kahua*, it's like a platform almost, out side here...it's all *'ili 'ili* [pebbles], and *pōhaku* [stone]. Do you remember...

LC: There was a water tank someplace.

KM: Yes, it's outside there [pointing behind the house].

LC: Okay, all I know, all the fishermen. Papa was in charge of all the fishermen coming out from Mahai'ula. And he would sell the fish at the store. They did all of their work here.

KM: Ahh, so they would dry the fish, gather the salt?

LC: I'm gathering that. I'm not too sure, but you can sense that there must have been some activities at this place here. To actually see it though, I did not see that.

KM: Uncle Kino, when your ranch days time, and you would come *makai* here... Someone had said, perhaps Alan or someone from State Parks, that Magoon was going to build a tennis court here. Do you remember ever seeing a tennis court?

GK: Maybe had the intent to do that, but he died. The son was George Magoon, and he took charge of the whole area. He had a big development was going down here at that time. What his thought was, to take people out for diving and all that. He had the sense to do it, but he got sick, so that didn't go.

RL: I don't know if I'm going off the direction, but, the airport is expanding in this direction. What does the State see as this area? Will it be developed or left alone?

SS: You mean...?

RL: Where the graves are at. If the development is coming this way.

SS: Once we have it, it becomes park, the area that area that is within the wall, is already noted on plans as being *kapu*, it won't be touched.

RL: What about the area on the other side of the wall?

SS: Outside of the wall?

RL: Uh-hmm.

SS: That's really just the lava field and there is no intention to do anything in that area.

RL: So they're not going to go and make another golf course?

SS: Oh no. No, no. This is park. And it is to keep it very much the way that it is. Anything that you do, like teaching marine education, having the cultural sites be interpreted, or the Ka'elemakule house...

...its going to be that kind of program. People who want to walk the *ala kahakai* [shoreline trail], they can stop by and talk story with the park people, and get information. You can fish, and do all these things, but very little in the way of physical changes. You will see it kept much as it is.

RL: And this will go all the way to Kua Bay?

SS: Yes.

KM: So the idea is to preserve all of these places.

LC: Wonderful.

KM: Basically as they are today.

LC: We're very, very thankful. And I want to say with all of you, you are all here...I was going to write a letter, but I do want to express my feelings towards this group. It took me so many years. I got involved with the Hulihe'e Palace, doing research, and I came into many things of this area, history-wise. It's so beautiful. And then I came to my family...and for ten years, I've been going at, going at it and working hard with Legislators and with DLNR...and I'm satisfied now.

On behalf of my children and myself, and I know my family too, the other Ka'elemakules, we appreciate this very, very much. For what you're doing for this particular area. But, don't forget to ask us! [said with emphasis] Don't go do something without our knowledge, or else you'll get it!

RL: Scold 'um Aunty Lei.

Group: [laughing]

LC: Then you say, "But Aunty Lei said."

Group: [laughing]

LC: This is going to be a beautiful park and will bring things back to its normal...these homes could be used by students. Now, what about the road? Is it going to be fixed?

SS: The main road out here?

LC: To come into the area here.

SS: I think, right now, we have donated rock that we just fill in the ruts. But, I think someday, we have to improve it so that it's not hazardous. Because right now, that's a fairly rough ride for everybody.

CK-P: Hmm.

SS: So, I don't know when, that's a big cost. Doing road work is costly. So it requires that it be budgeted and the money be given.

LC: Well, as they take our tax, little by little.

SS: Yeah. Already, the front is fixed because D.O.T. [Department of Transportation] widened that area and put the turning lane in, so that just getting up on the highway, is much better.

LC: Well, this is good workshop area for our children to come down.

SS: Yeah, that's the intent. We're going to bring children down, and bring maybe, the small van down, so we need to fix it up.

- LC: I think, my question to this body is this. Here we have an issue right here, this is beautiful for the children and for our *kāpuna* to come down and wet their feet. [speaking to Aunty Caroline] Yeah, you and I come down and wet our feet.
- CK-P: [chuckling and agrees]
- LC: But to get here...now, I'm talking about the State, you folks are out of this. Why does the State do things like this? It just makes me so mad. They do something like this, which is beautiful, well, complete it.
- SS: Finish it.
- TY: That's a beautiful comment.
- Group: [laughs]
- LC: This is a beautiful build up, and I appreciate it, but you got to have a good car to come here.
- KM: The time will come. Aunty, when you were young, and you came with your husband, you folks came by canoe.
- LC: Yes, we came by boat.
- KM: *Kupuna [Caroline], i kou wā li 'ili 'i, ua holo wāwae 'oe, mai Ka 'ūpūlehu a i kēia wahi?*
Grandmother, in your youth, did you walk from Ka'ūpūlehu to this place?
- CK-P: *Hele wāwae* [walk feet].
- KM: *Hele wāwae, ma ke ala loa?* [Walk feet along the long trail?]
- CK-P: *Ala kai* [shore trail].
- KM: *Ke ala kai* [the shore trail].
- CK-P: 'Ae [yes].
- KM: *Ua hele wāwae. Pehea o uka? Pehea nā 'ohana o uka, pehea lākou i ho 'iho?*
Walked . How about those of the uplands? How about the upland families, how did they come down?
- LC: The same thing.
- GK: *Kēkake* [donkey].
- CK-P: *Ma ke kēkake. 'Ae, kēlā manawa kēkake wale nō.* [On the donkey. Yes, that time only on the donkey.]
- KM: So there were some set trails that you folks would follow between *mauka-makai*...?
- CK-P: 'Ae.
- KM: ...and along the ocean, was a set trail?
- CK-P: 'Ae.
- KM: Was there still any families living at Makalawena, perhaps in the 1920s thereabouts? So you remember?
- CK-P: [thinking]
- KM: The church already, Mauna Ziona, was *mauka*?
- CK-P: Oh yeah, and still standing.

On February 19, 1998, the author asked aunty Caroline several questions about the church at Makalawena. A summary of that conversation is included here:

- KM: *Tūtū, ua hele 'oe i ka Hale Pule i Makalawena?* [Tūtū, did you go to the church at Makalawena?]
- CK-P: *'Ae, ua li'ili'i au, akā ua hele au me ku'u mau kūpuna. 'o Kahiko me Mahikō. 'O Wainuke pū me ia'u.* [Yes, I was very small, but I went with my grandparents, Kahiko and Mahikō. Wainuke (J. Maka'ai) and I.]
- KM: *So, ua hele 'oukou i ka Hale Pule i Makalawena?* [So all of you went to church at Makalawena?]
- CK-P: *'Ae.* [Yes.]
- KM: *'Ehia ka nui o 'oukou?* [How many of you?]
- CK-P: *A'ole nui, he 'eono paha, he 'umi paha. Mākou pū me Ane, a me kekāhi po'e e a'e.* [Not many, perhaps six or ten. Us, Ane (Annie Punihaole-Una), and a few other people.]
- KM: *Pehea 'oukou i hele ai?* [How did you go?]
- CK-P: *Hele wāwae, ma ke ala lihi kai. Māua pū me nā kūpuna.* [We walked along the shore side trail. Us two and the grandparents (gestures, holding the hand of her kūpuna).]
- KM: *'O wai ka inoa o ka Hale Pule?* [What was the name of the church?]
- CK-P: [thinking] *Mauna Ziona.*
- KM: *Mauna Ziona? Aia no ia i uka e?* [Mauna Ziona? That was inland eh?]
- CK-P: *'Ae, o Mauna Ziona ka inoa i uka, [no'ono'o ana] ...a o Kaikala'ia ka inoa i kai.* [Yes, Mauna Ziona was its name inland, [thinking] and Kaiakala'ia its name at the shore.] (pers comm.)
- LC: Is that Kalāhikiola Church?
- KM: *A'ole* [no], Kalāhikiola is the Kohala church.
- CK-P: In Kohala.
- KM: Mauna Ziona is the one that's up at... [looking at Uncles Kino and Val]
- GK: Kalaoa.
- CK-P: Kalaoa.
- KM: And that's the church that was down here. Uncle Kino, was that church down here, do you think, when you were born, or was it already *mauka*?
- GK: Was *mauka*, but to my understanding, that church was in Kohanaiki.
- KM: At Kohanaiki?
- LC: Oh.
- GK: And my *hānai* father hauled the lumber from Kohanaiki on the donkey, on the horse, and took 'um up there, and they went build that church up there, Mauna Ziona.
- KM: So not Makalawena then?
- CK-P: Oh.
- GK: That's what I was told.

- KM: Oh. Because some people have been saying that they thought that Makalawena's *makai* church, went up to Kalaoa.
- GK: No.
- KM: But you think it was Kohanaiki.
- GK: According to my father, they had that Kohanaiki Church and they went to carry 'um, go up. I don't know, unless they had some material over here, and combined Kohanaiki.
[On February 21, 1998, uncle Kino noted once again, that his kahu hānai, who had also been the caretaker at Mauna Ziona specifically told him that Mauna Ziona had been made from the church that was at Kohanaiki. He stated, "I can only tell you what I heard. I won't say what I don't know."]
- LC: Okay.
- CK-P: Oh what a life, no?
- KM: Yeah.
- LC: Elizabeth Lee [the sister of Uncles Kino and Val], Maluihi, was telling me...watch her, I just love that lady. [speaking to Uncle Kino] We used to go to your house up at Kalaoa, and we used to get on the horse...your mother, a beautiful lady. My husband and I would ride up to where I'm living now. On horseback and ride up. And then she said something that dawned on me. Right, we used to go up to her house. And we picked up *pa'i 'ai* [unmixed pounded *poi*], and she'd say, "Oh, the '*ōpelu* just came from Mahai'ula." And we would take our '*ōpelu* from the store. And he'd say "Don't take that [the store '*ōpelu*], that [the Mahai'ula fish] is '*ōpelu*." I remember that so well. And she remembers that so well, Margaret. And that's where this boy [Uncle Kino] and Margaret, you both lived up there.
- GK: Yes.
- LC: We used to ride on the horseback go up to our place, where we live now.
- KM: Was there ranching going on down here at all?
- GK: [shaking head, no]
- KM: No more *pipi* [cattle] down here.
- LC: No.
- CK-P: *A'ole*.
- KM: What did the ranch do down here, you guys did something down here?
- GK: No, we come down to check the people down here. Aunty Annie Una and when Magoon comes over, then we bring them down with the horse, come down here. Then when they go home, they go on the boat. They had the boat.
- KM: So they would ride *mauka* road, come down?
- GK: There's an old trail right behind here.
- LC: Yeah, that's right.
- KM: So the old trail goes right behind here?
- LC: That's the boundary eh? Isn't that the boundary?
- GK: I think it's on the boundary line, but I really don't know.
- KM: How about ship wrecks? There's some talk about some boats that sank out here maybe? Did you folks ever hear about that?

VA: *Kalae.*

GK: *Kalae.*

VA: Sank outside there [pointing to the area of the northern point, fronting Kaulana]. And up to the 40s, the mast was still up.

LC: Oh yeah, that's right.

GK: You know where we were this morning, about eleven 'o clock of that.

KM: Okay, from where we were. And that boat was *Kalae*?

VA: Yeah. And then, one other boat.

KM: The Maui, went off in 1917.

AC: Nineteen-seventeen. That's about a half a mile out.

LC: Oh yeah?

KM: [pointing out beyond the break on the reef] See the white water then, where the white water is, the waves?

LC: Yeah.

AC: Past that.

KM: Past the white water.

GK: I think, those days, when you look...even you look now, "oh, the boat can come in." But, cannot, you got to go from outside, that side [pointing to the northern side of Mahai'ula Bay] and turn, and then you come back from that side. I'm quite aware of that channel.

I guess that's why they named that lae [point] over there Kāwili.

KM: Kāwili [chuckles].

LC: Kāwili means to get out of my way.

KM: 'Ae, or strike and twist eh.

GK: [chuckles]

KM: 'Cause the waves come in, strike and twist. So, Aunty Caroline...

CK-P: We were small yet.

KM: If you folks were at Ka'ūpūlehu, you would walk feet, and go to Kūki'o. Was anyone living at Kūki'o when you were a child, that you remember?

CK-P: I don't remember. The only one I know, was my *Tūtū* folks, Kahiko and Mahikō.

KM: What about Jack Una and Annie Una?

GK: They lived over here, that side.

KM: At Makalawena?

GK: [nods agreeing]

KM: In your child time, yeah.

LK-L: Punihaole eh.

CK-P: Punihaole.

KM: Punihaole. Keaka Punihaole, yeah?

CK-P: That's only them, only they were the people.

KM: Makalawena, no one was living hardly, except for Aunty Annie them?

LK-L: Annie Una. But Punihaole was both, back and forth.

KM: Between?

LK-L: Kūki'o and Makalawena.

CK-P: Yeah.

LK-L: But that's like daddy [Lopaka Keākealani] remembers, and uncle Joe too. Because they [Punihaole] had the farm, the water melon.

KM: *Makai* [in the coastal area]?

LK-L: Right there at the *kahakai*, 'cause they used to...

CK-P: On the 'a 'ā too, it grow.

LK-L: Big water melon patch.

CK-P: Yeah.

LK-L: Pumpkins, sugarcane.

LC: Oh, you remember?

KM: Her daddy told the story too, from when he was young. What year was daddy born?

LK-L: Nineteen-seventeen.

CK-P: Yeah, 1917.

KM: So he was two years older than you?

CK-P: Yeah, I was 1919.

LC: Which Uncle Joe?

LK-L: Maka'ai, he was the *kolohe* one.

CK-P: Yeah.

LK-L: He'd go 'aihue the water melon.

CK-P: Yeah [laughing].

Group: [laughs]

KM: So by the turn of the century, the families had pretty much gone up. But you folks still came out here and fished yeah?

VA: Oh yeah. When we used to fish out here, we fish what we wanted. We didn't take more than needed, you know, to fish out the place. There was always fish available in this area. If you wanted the *awa*, it was available, and 'ō'io. This was the ko'a. And now that you mention, I would like for Kimberly, someday, that DLNR can cordon off that whole area, something like Hanauma Bay. To replenish the ocean. 'Cause right now, everybody is coming over here, and that's why we don't see the fish. But way back in the 40s, there was a lot of fish over here. And we took what we needed, but we didn't take too much.

CK-P: That's right.

KM: So you folks would take fish for family or for use...?

VA: Yeah.

CK-P: For family some, yeah.

- KM: But you don't just take everything?
- CK-P: Oh no. We got to leave some for them.
- LC: That's a no, no.
- CK-P: Yeah.
- VA: See, we used to have *awa kalamoho*, you know, the large *awa*. Today, no more nothing. And then *'anae*, in that corner over there [pointing north].
- KM: At Keawehala in the corner, where the *pāhoehoe* comes down?
- VA: Yeah. That's where we used to catch the big sized *'anae*.
- KM: You know, there are some ponds in shore also, like at Kaulana. Right over there, there is a pond. And then at Makalawena, there is an inland pond also. Did they use these ponds, that you folks remember hearing about, as fishponds at all?
- LC: I only remember the ponds.
- GK: I don't think so. But I think that this ponds is a bay-like that the fish come in, spawn and they raised and then they go out. Clean eh. But today, I don't think so. I talked to somebody, and they were talking to me. What the government did, they brought this fish from Tahiti, the *taape*. And they're the one that is wiping out all the shoreline fish. And sometimes, we catch the *taape*, but they eat the eggs of any fish.
- So that's the one point that I say, development shouldn't have done that. Leave the *taape* go down Samoa, but they brought 'um in for help the fishermen.
- VA: That *taape* also eats the Kona crab babies. And you know, out there [pointing beyond Mahai'ula Bay], that's all good Kona crab ko'a, you know.
- LC: This is where Kolomona used to come and get his Kona crab. He was the only man that would come.
- KM: Hmm, outside here.
- KL: What about things like *hā'uke'uke* [urchins]...?
- GK: Even that *hā'uke'uke* and *'ōpihi* like that, and it's wiping out. You get the *hā'uke'uke*, somewhere about two inches, and today, you can go and just pretty much nothing [gestures maybe ½ inch]. It's all wiped out. And even the *wana*, it's the same principle. Before, we used to go get, you don't have to go dive plenty, and you get those big monsters. The tongue inside, is bigger than my finger. Today, only get the small one and all of that. So there are a lot of things that I don't know, like brother Val was saying to make something like Hanauma Bay. But if you still going get this *taape* come in, I don't know how that...
- LC: I think we should stop that before it's too late.
- KL: The trouble with Hanauma Bay is that they feed the fish there. So you get things that multiply that wouldn't ordinarily be so many. And then others that...like the *nenue* come in, and they chase everything away, coming after the food that the tourists bring. So you have to be careful when...I understand the idea of conserving it perhaps, but you may not want to make something like Hanauma Bay where so many people come.
- VA: Just cordon 'um off, but don't allow them to feed the fish. Let the natural resource replenish nature.
- KM: What it really is, is like what you [Uncle Val] told me before, it's the *ahupua'a* system. How certain time it was *kapu*, you don't get *ula*, or you don't go get the fish this other time, yeah. So there was a *kapu* time so that they could naturally replenish itself. But, if

- everyone is coming form all over for fish, no can.
- VA: Uh-hmm.
- KL: This is what we're trying to do down south, is to have some things like that and in the same way that we're doing here today, with the *kāpuna* of that area. To understand, when were the *kapu* times. Especially for 'ōpelu, it's very important, the *kapu* time, as well as the time that you feed the *ko'a*.
- And while we still have the opportunity to learn what those practices were. And maybe bring them back, like it was done.
- GK: Excuse me if I'm wrong, I think that what's happening today, it's abuse. I think that's abuse.
- LK-L: Yeah, you don't have a *konohiki* [a land overseer]. If the State is going to stand as the *konohiki*, then they need to establish that program.
- VA: [gives brief description of breaking *konohiki* fishery at Nāwiliwili, Kaua'i; and Kaua'i fisheries]...
- KM: Here, Tūtū Mahikō sued for Makalawena's *Konohiki* fishing rights with Bishop Estate and it was thrown out also. [cf. 35 Haw. 608 (+); 1940].
- LC: Yeah.
- KM: So it was something that occurred around the islands...
- So fisheries, obviously, they are important to care for, and to manage. One natural thing that has happened here, have been the *tsunami*, the tidal waves.
- CK-P: Oh yeah.
- KM: Have you folks seen, like after 1946, did you notice, did the *tsunami* have any affect on the shore line here, or the fishery?
- GK: Yeah. Why I can say I remember, because, I was working on the ranch when that *tsunami* came, and especially, Vreedenburgh was my boss, and we came down with a group of men to look for Annie Una, to take them away. They had no way to see, forecast, if there was a *tsunami*. So they came down, and the *tsunami* brought everything way up.
- KM: Makalawena?
- GK: Makalawena. And this area. You will be surprised, you look how high the 'a'ā. but that *tsunami* went right up and came up into this area [gesturing to the Kāwili point area].
- KM: Do you think the *tsunami* changed some of the *ko'a* or fishing at all?
- GK: I don't think so.
- VA: You know, that *tsunami* affected certain areas eh.
- GK: It wasn't the whole place.
- KL: What about the 'ōpae ponds?
- GK: 'ōpae ponds, I would say that down at our area in Kaloko, Kohanaiki, all those areas, I think is being abused by people themselves.
- KL: What about when the *tsunami* came through?
- GK: It came through, inside some of the 'ōpae ponds, like what they call Pine Trees [the pond of Wailoa at Kohanaiki], it went in there. And after that, the 'ōpae was still there.
- KL: It came back.

- GK: Uh-hmm.
- LC: It passed our store right there at the corner [in Kailua]. It came around the store, and up in back [chuckles], it was strange. The McWayne's, and it knocked down the hotel, but it passed our store, it was like a... [gestures following a path right around]
- KM: A pathway right around, protected.
- LC: We couldn't believe it.
- LK-L: At Kiholo, it changed from white sand to black sand. That's when the lagoon broke, all behind, inside the *loko* [pond], opened, pau.
- LC: Oh yeah, yeah.
- LK-L: And that was 1960. But literally, that whole strip, down to Muller is changed, from white sand to black sand.
- KM: To Muller Point side?
- LK-L: All the way down. And that's very traumatic for that shore line, from Lae Hou down to Luahinewai, that's such a big bay. And that whole thing just changed to black sand. It was such an awesome tsunami, and then come right over to Kaupūlehu, to Kalaemanō, you know, there was a lot of wash inland. But, no drastic change.
- CaC: Is that the 1960 wave?
- LK-L: I recall, for me, at Kiholo, it was 1960. 'Cause when we were little, it was still a white sand beach and lagoon. The lagoon was still white sand. And I was born in 1953, so it was after 1942, but the lagoon was still there. But, from 1960, we couldn't go down and swim in the lagoon already, it was open.
- Underneath was open, had all sharks and what ever. And then eventually, from after that the tsunamis... Like, you know Dominic and Masao, they used to go down every time. Uncle Francis and them. That's how eventually, the *loko* got opened. Because underground, the tsunami just broke it open.
- CK-P: Amazing.
- LC: 'Ae.
- GK: Knocked all the walls at Kiholo.
- LK-L: Yeah. It was from when Kilauea-iki shot that stream, she went up, I think, about 1000 feet.
- KM: Yeah, so that's 1959.
- LK-L: Yeah, 1959. Brother Peter and them were all down there. Mr. Hinds still owned it.
- KM: Yeah, Uncle Billy Paris said the same thing about how that 1960 tsunami, just changed that whole place over there.
- LK-L: It was extreme.
- KM: But here, it was protected, it seems. [speaking to Uncle Kino] Do you know what happened here, because the houses are still here.
- GK: Most, as I say, it didn't happen much here. But it happened at Makalawena, and it went up over the sand.
- CaC: Kepā, what about the surfing?
- LC: What year was that?
- GK: 1942.

KM: [pointing to Kāwili area] You know, did anyone ever see anyone surfing out here?

GK: No.

LC: No. They all work, they never surf.

CK-P: They work.

Group: [chuckling]

LC: They went fishing eh.

CK-P: They go fishing.

KM: [looking to Casey] *Pau*, it was a different time.

LC: No such thing as surfing, they work! Fishing.

GK: There's a natural...Even right here...

CK-P: Oh, fishing, wake up early in the morning, go.

LC: The kids will get up early in the morning to go surfing, but they won't get up early in the morning to go fishing.

CK-P: You see the canoe going.

GK: But, the 'ōpae ponds are wiped out.

LK-L: Introductions?

GK: No, the place is not well kept. There's no maintenance. They used to clean 'um all. All kind dirt inside...
[tape off to break for lunch, but Aunty Lei brings up a concern about the taking of "aquarium" fish]

LC: You know what, this is so important, and it agitates me. I used to be with the airlines. I retired from the airlines. So my connection with United Airlines, Continental, and all these airlines was intimate, because I was sales and promotion. They would tell me, "Aunty Lei we ship plenty fish, you know, form Hawai'i to the mainland. And everyday, plenty!"

KL: You're talking about the coolers, reef...?

LC: Why do we allow such a thing.

KM: So "aquarium" fish-like.

KL: Uh-hmm.

LC: But they're taking it. They continue doing, and we're doing nothing about it? It's aquarium, so what. This is taking our food away from us.

KM: Hmm. Depleting the stock yeah. Okay, it will be on the record. And I know actually, Kimberly has been working on that...

LC: Kimberly?

KL: That area...

LC: Kimberly, I'm going to be on your tail.

Group: [chuckling]

LC: We used to go *kā mākoī* [pole fish] right in front of my house. My mother, *kā mākoī*, and my son John, my grandson, and they used to get *wana*, now, you aren't going to get it.

- KL: Another one that's happening, is the spearing, the *uhu*, you know, when it sleeps at night, it's inside of little spit bubble and people are taking advantage of that.
- LC: Well, that is different. The one I'm after is the little fishes that are about so large [gesturing a couple of inches]. But being shipped away to the mainland, or what. Now, we're talking about "No fish!" That's what's happening. And you know, the kids at United Airlines, Pan American, Continental, they don't want to say anything 'cause they don't want to loose their jobs. That's a crying shame.
- RL: So does that fall under DLNR's responsibility?
- LC: And that's why, they see me coming in, they going the other way. I say, "Go look for the fish. They're down at United Airlines and Continental Airlines baggage department."
- KM: *Mahalo*... [inaudible; laughing]
[end of Tape 2, Side A; begin Side B]
- KM: Okay-*mahalo*! What we wanted to try and do, just for a little while more, is to just review a couple of things. The archaeologists. Alan and Martha had a couple of questions about some specific sites that you might be able to shed some light on. Martha.
- MY: Alan, we don't have any overall maps eh?
- AC: No.
- KM: We have this nice big map [opening interview map no. 1]...
- MY: I don't think this is going to show it.
- KM: No, but it is fairly large scale though.
- MY: Okay, between here and Ka'elehuluhulu, there is the lava flow area. And there is a stacked rock wall enclosure feature. It's fairly high walls.
- Group: [orientation comments; Alan shows participants a sketch of the walled enclosure, *Site 25*]
- AC: It's a really high wall, it's the most obvious wall as you're coming this way. Right on the middle of the lava flow [the site is situated inland from the southern shoreline of Mahai'ula Bay].
- KM: Yeah, this big wall right in here.
- AC: Yeah. It's maybe like an animal pen.
- CK-P: What about the Ka'aihue family. That's Uncle Joe Maka'ai's *Tūtū* them from way before. Before Kahiko and Mahikō. I think that's their parents, either Mahikō's mama or *Tūtū* them.
- KM: So there was a Ka'aihue down here?
- CK-P: Yeah. Joe Maka'ai's parents side. Their *Tūtū*, they were the one that stayed down here. Mahikō and Kahiko, then come them. That man, that one that I mentioned.
- KM: So Ka'aihue was down Mahai'ula?
- CK-P: Mahai'ula. Yeah, that's what I think. Joe Maka'ai's family.
- KM: Well, I'll try to ask Uncle, if he remembers too.
- Group: [orientation discussions]
- KL: [looking at the map] I think it's right around in here.
- KM: Yeah, right in that area about.
- LC: So, there is a wall there now?

KM: Well, it's a big walled...almost enclosure like yeah.

AC: Yeah, I'm sure it was.

CK-P: Yeah, yeah.

AC: But it's broken.

KM: Some of it's broken, *hāne'e*.

CK-P: Yeah, I remember them. And had one old shack inside there.

MY: It's kind of a depression yeah.

CK-P: Yeah, had one old shack. But I think that's where Ka'aihue them used to live in there. *Pa'a* [secured by] this fence, wall eh. They figure in case get tidal wave or what ever, they safe inside. Get cement inside the wall, the stone.

MY: This one doesn't have cement.

CK-P: That's Joe Maka'ai's *Tūtū* them.

MY: Do you know if they were buried down there? There's two sites that look like burials.

CK-P: No, they went home. They went back Pu'uanaulu. Who ever down here, I don't know, unless it's this Ka'aihue family. Joe Maka'ai's *Tūtū* them. I don't know if the mother or the *Tūtū* man, the family, you know.

MY: Uh-hmm.

CK-P: Their mother, or their father, or the sister family, with Joe Maka'ai.

MY: Okay.

CK-P: And kind of hard, you know, for reach to them, 'cause that's Joe Maka'ai's father's mother's parents, *Tūtū* them. Below them. Maybe that's the *Tūtū*'s sister, or brother them.

KM: Far back.

CK-P: Yeah, far past. Maybe Joe Maka'ai no was born that time.

KM: Yeah, Uncle was born 1917.

CK-P: So these people was *pau*, gone already.

LK-L: Maybe he knows the Ka'aihue.

KM: [speaking to Uncles Kino and Val] Do you guys know Ka'aihue, this side?

GK/
VA: No.

AC: The more general question, other than Kolomikimiki, do you guys know of any other grave sites in this area. We've found a few sites that look like graves, and we wanted to know if anybody knew about them, other than the burial cave.

CK-P: 'Cause the only one I know is this Maka'ai family, their great great grand parents. They were raised down here.

KL: Did they have perhaps, caves that they might store things in when they went *mauka*?

GK: They won't say.

LC: If they were...

GK: It's secret.

- LC: They wouldn't talk about it.
- GK: It's just like a secret. You know, I heard from Aunty Annie. You know, at Ka'ūpūlehu? Okay, way up at Ka'ūpūlehu, between the highway and Ka'ūpūlehu Village, there was a cave there and every year, had an old lady...
- CK-P: I know, I was inside this ana [cave]. I was going up, me and Joe Maka'ai, go up early in the morning, we leave, but rain, and we got off and hide in this cave.
- GK: Well this cave, is a secret cave. And they had in that cave, every year, when dry weather, this old lady would go up there. She would bring the cloak out, the king's cloak, and *kaula'i* [dry and air out] in the sun. And then pau, then she put 'um back again in that cave. And that was going on until one day, then somebody went walk down and this old lady saw. This person saw this old lady, but this person was trying to find this old lady, she saw, and she took off. She went down to Kalaemanō, and nobody went find that place till today.
- KM: Hmm. And you learned this from Aunty Annie Una?
- GK: Aunty Annie.
- KM: As a general question, as Alan just mentioned, in this area, did you know of any other burial place that you'd heard of right in this area here? Other than the cave. Kolomikimiki?
- LC: [thinking] Yes. I think there was one not too far from here [pointing out]
- KM: Not too far from here, towards the point, Keawehala or Kāwili Point area?
- LC: Yeah, somewhere around there.
- KM: As another general question, what is you're *mana'o* [feeling or thought]... In fact, at Makalawena, at Pu'uali'i, the dune area there, that is a place that was recorded, even in the 1880s as well known. The *iwi* [remains] would sometimes be washed out in the ocean. What is your *mana'o* about how burials should be treated. If you find a place where there are *iwi*, *'ilina* [graves], or else that are washed out by the ocean, how should the *iwi* be treated?
- LC: Washed into the ocean?
- KM: Like if at the sand dune, and there are *iwi* that are exposed by natural ocean action, or up on land if they find a place. How should the *iwi* be treated.
- CK-P: *Mahikō mā...* [Mahikō folks...]
- LC: They should be gathered.
- CK-P: All you have to do is gather them, put them in the bag and take them and put in the cave.
- KM: Put in the cave.
- CK-P: That's all. Put in the cave. All you have to do, you can prayer "Although maybe I bring this family which I don't know, but anyway, I put them in a safe place. But forgive me if I doing something wrong. If I'm doing right, well, thank you God in heaven.
- KM: 'Ae [yes].
- CK-P: That's all. Just *pule* [pray].
- VA: I would like to share in connection to that. I took care of the *iwi* at Coco Palms [Kaua'i]... [explains that when treated respectfully, there are no problems]
- CK-P: ...Yeah, that's the only thing we can do. 'Cause we find bone, *iwi* like that, we don't know who them. But the best way is to take them and leave them in a good place. That's

- all...
- VA: ...When I was working, I always took care of the *iwi*.
- KM: 'Ae. If *'ilina* [graves] are found here in the park at a place, what would you folks recommend. Like if there is a small *papa* or *kahua* [flat area or platform]? What is your thought?
- CK-P: You mean the *iwi* like that?
- KM: Yeah.
- CK-P: The best I can do is take 'um and leave it in a cave.
- KM: Ahh. What if it's in a safe place now, just leave it where it is?
- CK-P: Yeah, you leave 'um.
- LC: If it's in a safe place.
- CK-P: That's one safe place.
- KM: Leave them where they are.
- CK-P: Maybe the one own the bones, they no, "ahh my bones over here," [chuckling] they come. That's those days now.
- KM: Yeah, that's how, eh. They have *mana* [power].
- CK-P: Yeah.
- KM: *Mana ko lākou iwi*. [Their bones have power.]
- CK-P: *A mahalo kēia po'e* [oh thanks to these people], they come bring my bones back. [laughing]
- VA: Like that 87 bodies I went rebury. The day I was supposed to rebury, I went in that part of the hotel [Coco Palms], and I had *pule* [prayer] inside there. 'Cause you could feel them asking you "Where are you taking us?" And I had to tell them, "Where I will take you folks, I will put you, and nobody will bother you..."
- AC: What do you guys remember about the trails in this area? How many trails were there from the coast and *mauka*?
- CK-P: Well, like my brother, and the father, well known, he's well known. No matter what trail, he knows.
- KM: Uncle Kino, you said there was one *mauka* trail that ran up here?
- GK: Right up to the mountain.
- KM: Where did that trail go to, what community?
- GK: Hu'ehu'e. That's one.
- CK-P: Oh yeah.
- GK: Then Hu'ehu'e get one and then one go to Kaū [south of Pu'ukala], on this side of Ho'onā. That Kaū runs straight up and this trail [Mahai'ula-Kaulana] goes up half way and it goes up to Kaū, and then goes up to Kalaoa. But the trail that is really well know, is this one here and the Makalawena one.
- KM: [looking at interview map no. 1] I see Makalawena trail is marked on this map, which shows it running up as you said, right into 'Akāhipu'u-Hu'ehu'e.
- GK: Yeah, right.

- KM: And what this map shows, it's about 1928-1930, it's compiled from earlier maps, it shows the *makai* trail coming from Makalawena to Mahai'ula.
- GK: Yeah.
- AC: [pointing to the area along the Mahai'ula-Kaulana boundary] This is the trail we just found and mapped, which is probably the one that you're [Uncle Kino] referring to.
- GK: Yeah, right. It's about 100 feet away from the cemetery, the cave.
- LC: Now which is our roadway?
- AC: [pointing to a map of the archaeological features in the Mahai'ula section of Kekaha Kai State Park] It's the double dotted line here.
- LC: Oh yeah.
- GK: We came down over here, then we make a long swing on this side, and then we went back again, come back to here. And then this one here, is the one going to Keāhole Lighthouse.
- AC: And this is the trail.
- GK: Yeah. And this trail is going up, right up to hit Kaū trail.
- GA: [pointing to the archaeological site map] And this is the Kolomikimiki area.
- GK: Yeah, the cemetery.
- KM: So Uncle Kino, you were still riding that trail up when you were working the ranch eh?
- GK: Yeah.
- AC: A horse trail, donkey trail, or foot trail? All?
- GK: A horse trail, foot trail. 'Cause those days, no more car for reach up there.
- Group: [laughing]
- CK-P: Yeah, no more car those days.
- GK: Then, there was that old Judd Road, cutting right across. This one, up here. The old Judd Road, that goes right to the hotel side.
- KM: So that's the one they call Māmalahoa?
- GK: Māmalahoa.
- KM: So you were told that Judd had something to do with that also?
- GK: All I know is that it's the old Judd Road. I don't know the story about it. What I know, from one of the old surveyors, and I asked the question, "How did they make that trail so straight? Climb up, and you still see it, going down, you still see 'um." And he told me, "In those days they had only bamboo." And that was their sight...
They had this bamboo, and had cut one stick. And then they look through this bamboo and [by spotting on] this stick would tell them where to go. That's how the set all the rock. And if you go on that trail, you climb up and you still see 'um. You go down, you still see 'um. And that's how. Today we have instrument, laser now, more fast...
...So coming back to these trails, that's the only trail i know for go up, and the one by Makalawena. So as he said, it's about 100 feet away from the cemetery.
- AC: Do you remember a petroglyph field with Hawaiian names?
- GK: I really don't know about petroglyphs.

- LC: I don't either.
- KM: In the section of the report that I'm preparing, and that you are all participants in, we've translated quite a bit wonderful material.
- There were people in the Māhele in 1848 that were registering claims for land here, native families. Then in the archaeology, along the trail, there is a whole series of names that are written in stone, that are very interesting. They were on the list that I sent to you. [looking through the interview questionnaire] There are names like: Kamai, or Kama'i; Kawai; Kau; and there some that are almost like sentences. Like this Naapuelua; Luahine; Kaulahao; Kualii; Kaholi. Hoino was one of the old names that Papa Ka'elemakule mentioned, belonged here. One of the old family members...
- But, in your folks time, there were no old people down here already?
- GK: No, the only person I know, in my time, was Auntie Annie Una. And of course, we followed on the map and stuff like that. That's the only information I can get. Because after I worked with ranch and then I have to work in the office to find all these different names, so I know where I'm going [chuckles].
- KM: Yeah.
- GK: So I think that's about it. I don't know any other historical areas.
- CK-P: Too bad my brother gone. [pointing to Leina'ala] The father, from Hualālai, down to Kīholo, he know all the place. The father.
- KM: Fortunately, Leina'ala taped some of Papa's stories...
- CK-P: Yeah. And he even take tourists down all the way to the beach, all on the horse.
- KM: Yeah.
- AC: There are also a lot of *papamū* [generally described as stone checker boards], all over the lava fields as well. I assume, these probably are before your time yeah. You guys weren't playing *kōnane* [checkers] when you were down here.
- LC: [shaking head] No.
- CK-P: [chuckling]
- KM: *Ua pā'ani 'oe i kēlā pā'ani?* [Did you play that game?]
- CK-P: 'Ae [yes].
- KM: *Kōnane, ua pā'ani?* [You played *kōnane*?]
- CK-P: *Pā'ani wale nō ho'okāhi manawa, a pōina.* [Played only one time, now forgotten.]
- KM: Oh, just one time [chuckles].
- LK-L: You know, sometimes, it's become very familiar to me that where ever we find this pukas, that it's automatically referred to as *kōnane*. And I think we gotta [sighs]...I just think of the years at Kaupūlehu, with our petroglyph field. I had a Marquesan navigator come there, and he said, "Back in the Pacific, that was also a way of teaching navigation. That was a board that was used for navigation." And if you're familiar with Kaupūlehu, you will see the dots are not used as games. There are these four different symbols that utilize these dots, that has no reference to *kōnane*. And this is a new idea that I'm trying to say, we have to realize now that all these things we see out there, that we automatically think of as *kōnane*, could also have been a numbering system to give us a date, numbers of people. Referring to a time period, not a game. And I think we're getting into a time where we probably need to get this new concept maybe, introduced to us, that all this *papamū* are not games. The Hawaiians didn't use it to just play. It was

very necessary symbols. I feel that if it's considered *kōnane*, it will be taken lightly, and it shouldn't be. It's somehow become our interpretation.

What if we discover that it's not *kōnane*? How do we correct what we're already impressing on. So that's just a thought.

KM: 'Ae, *mahalo*. What you're saying is that it could have had other functions yeah? Or it could have been for other reasons, possibly like teaching navigation?

LK-L: Well, it was a board, and you place your stones for your constellations. During the winter solstice, summer solstice, you show the kids, or your navigators by placing the stones in these pukas. The Galaxy never changes just the constellations. This is your board, this is how you use it visually, by placing the stones in specific places. You have north, south, east, and west. Then you just move your formations of the stars. But this is the board, not a game, but a teaching. And at Kaupūlehu, we have four dots, a line that comes, two dots, a dash, and it goes over to all this pecking. Again, I try to introduce the symbol, the *puka* is significant.

KM: *Mahalo*. Martha?

MY: It's definitely worth exploring. What we've been doing, is documenting all the ones we've been finding, taking photographs, so hopefully we'll have a good record of where they are.

And if the opportunity comes up to test these in some way in the future...

GA: One indication if that, what you're saying is possibly correct, would be the alignment of the lines in the stone could be checked for directional reference to either the stars. Or directional in east, west, north, south, and then see if the line lines up with that kind of reference.

LK-L: Aunty Ruby does that. She's very into that. When you go to Ahu-'Umi, you know, that's all you see is that alignment of stones. When this navigator brought that to my attention, the light went on. That possibility.

MY: That's Ruby McDonald?

KM: Ruby Johnson.

LK-L: Rubellite Johnson.

MY: Oh, Rubellite Johnson.

GK: I think in the Hawaiian days, as she was saying, they have a lot of input for navigation. And not only for the ocean, but for land too. They would point out where they... Like she just mentioned, Ahu-o-'Umi. What is Ahu-o-'Umi up there? Why Ahu-o-'Umi is up there, as you all know, that is the center of the island of Hawai'i...

...Some navigation to the island of Hawai'i. And if you look really how Ahu-o-'Umi been there, to the story that I got, that's where everybody comes in and congregate from every direction to that place. And that's how they count the people, how many on the island and all of that. [chuckles] I don't know.

KM: Is that something that the *Kūpuna* told you also?

GK: Yeah.

KM: You heard, that it was like a census then?

GK: Census. And the same thing too, as she was mentioning, and all these historical places. And there's an instance that I could be, really honest. It's not you two [Martha and Alan], they said, "that's one *heiau*, and this is one *heiau*." And the truth behind the whole this is not the *heiau*, it's a farm area, farm place. So the old Hawaiians—you never

find a Hawaiian just go ahead and plant. Never. You find the Hawaiian go over there and clean all the rocks and make a little pile of rock here, a little pile there. And they plant potato, or they plant taro, and their vegetable. And that's just what it is.

But today, all the people who go search, they find, "that's one *heiau*," oh *tabu*. They make one mark there. And *tabu* this, *tabu* that. But actually, it's not a *heiau*. And I think I have seen that down the beach too. That if you go in there and look and research, and I guarantee you go ahead and dig, you going find that *heiau*, but you going find dirt. And what that dirt is, a planting area. And I think the Hawaiians, they have a lot of significant, that *tabu* this, and *tabu* that, so when they plant, they plant like with the moon. They follow the moon and the stars like that. So I always get in my mind, "how did the Hawaiian make all this moon days, *Mahealani*, *Hōkū*, *Ole* and all that to the month."

That is a significance that I think Hawaiians, they follow every moon and they plant. So they make one stone wall go around. And they clean all the dirt, get all the dirt. And they start planting inside that. The weeds grow and finally, they get plenty dirt.

KM: 'Ae [yes]. Speaking of planting then, around this area, did you ever hear, did people cultivate down here? You told us earlier at Kūki'o, used to have *ipu wai* like that, watermelon, and things.

LK-L: Uh-hmm.

KM: Did Papa, by your time, did they keep any cultivated plants down here, other than the trees for shade, and *lau hala* and *loulou* for weaving?

LC: Not that I remember.

GK: Not that I know of.

KM: Not at that time yeah.

LC: There was nothing but fishermen down here.

KM: One of the things that Alan them have found in the field here, even coming just out of the background here...and just what you were describing. That's what the *kāpuna* did eh, *pu'epu'e* [made planting mounds]. And Auntie Lei, like how you shared with me how *Tūtū* used to make these mounds and *kāpulu*, mulch 'um. Not throw anything away eh.

LC: That's right.

KM: They'd use it all to mulch. There are some small little trails, that go off into areas, even behind here. And in some areas, it's like...

AC: Circles.

KM: One or two course walled off.

MY: Terraced.

KM: Small areas though. Is it possible that they were growing, cultivating plants area in mulched areas?

GK: I would say they were growing.

KM: Here's a question. *E kala mai ia'u inā e ho'oma'au au iā 'oukou. Aia ihea lākou e ki'o ai?* [Excuse me, if I offend you. But where did they go to the bathroom?]

Ka wahi ho'opaupilikia? I hea? [The place to relieve one's problem? Where was it?]

CK-P: *I ka 'a'ā.* [On the 'a'ā.]

KM: *I ka 'a'ā.* [On the 'a'ā.]

- CK-P: *'Ae. Pi'i i ka 'a'ā, huli 'oe i kāu puka. ['aka'aka ana] Nāu nō i huli kāu lua. Hana kāu lua a kau ka pōhaku.*
 Yes. Go up on the 'a'ā, and you look for your hole. [laughing] You have to look for your pit. You make your pit and then put a rock over it.
- KM: *Mahalo. 'Oia kāu hana i kou wā li 'ili'i?* [Thank you. So that was your task during your youth?]
- CK-P: *'Ae. Ho'i mākou i kāhi kuahiwi i ka 'a'ā ['aka'aka ana].*
 Yes. We went to a place on the slope, in the 'a'ā [laughing].
- KM: Ahh! So, what we asked now, and excuse, where do you relieve yourself? "In the 'a'ā."
- CK-P: *'Ae* [yes].
- KM: You go inside, you have a little trail place, you turn over the 'a'ā...
- CK-P: *Inā a'ohē lo'a pepa, huli 'oe i welu ['aka'aka ana].*
 If you don't have paper, you look for a piece of rag [laughing]
- Group: [laughing]
- KM: *Welu, he lau paha?* [A rag, or perhaps a leaf?]
- CK-P: *Mau'u, weuweu paha, lawe ana, pi'i mai 'oe, 'ae. Kiloī, a kau ka pōhaku.*
 Grass, perhaps a clump of grass, taken as you go up, yes. Then discard it, and set the stone on top.
- KM: *'Ae, kau ka pōhaku maluna.* [Yes, set the stone on top.]
- CK-P: *'Ae maluna. A'ole koe ka holoholona.* [Yes, on top. So nothing remains for the animals.]
- GK: Any place...
- LC: *Hele a 'au'au kai.* [Go swim in the ocean.]
- GK: I think in those olden days, they didn't have all these different disease that we have now. So probably, that is one thing that is significant that the old Hawaiians had, *kapu. Kapu.* because they don't want you to go any place. You got to go certain, certain, certain place. And they went restrict in that area.
- KM: So there were dedicate...
- GK: Dedicated.
- KM: ...places then, that you would go to. So a trail actually could be worn, for a family, worn into a particular place to relieve one's self.
- CK-P: *Inā a'ole ma'ō ka la'i ka mea, ka [kuhi ana ka lima i ke kumu milo].*
 If there is no ti leaf over there, then the [gesturing to the milo]
- KM: *Ka lau milo.* [Milo leaves.]
- CK-P: *'Ae ['aka'aka ana]. Inā a'ole lo'a pepa, ai ma'ō ka lau ['aka'aka ana].*
 Yes [laughing]. If no more paper, the leaves were over there [laughing].
- GK: These were intelligent people. I'm just expressing that if you happen to go out somewhere and you find, you be sure that that's a planting place. Hawaiians, they never... One instance, back of my place, had this old man from Maui [when I was a youth]. He had run away and came behind of our place. He build one big *pōhaku* [stone] mound. They went claim that the *pu'u pōhaku* [rock mound] was one *heiau*, but actually,

it was not a *heiau*. It was this old man. He used to make the stone pile, pile, and pile, and came big. And that's how they plant their food.

- KM: And that was his clearing area there?
- GK: Yeah.
- KM: He made a nice mound eh.
- GK: And Hawaiians they used to do things neat, not *kapulu* [messy]. They build their wall and they keep building. So today, they call that a *heiau* [ceremonial site]. So I'm expressing this to you, so it will not be a puzzle for other people to say "Hey, this is a *heiau*..."
- CK-P: '*Oia ka pepa o kēlā mau lā, o kēlā au. [ʻakaʻaka ana]*
That was the paper of those days, that time. [laughing]
- KM: '*Ae. Kēlā au, ka ulu lāʻau. Akā, makaʻala no kēlā lau kiawe!*
Yes. That time, the trees. But you have to watch out for the *kiawe*!
- CK-P: '*Ae [ʻakaʻaka ana]. Lau kukui, aʻoia. [Yes (laughing). The kukui, that's it!]*
- GK: But you know, the Hawaiians used to plant a lot of things. And I'm sure that they had some areas down here planted in the sand and mulch.
- KM: What do you think they would plant down here?
- GK: I would say potato, *ʻuala*.
- LC: Sweet potato.
- GK: And *palaʻai* [pumpkin], *ipu ʻai waha* [watermelon], and I think those are the...
- LC: Basics.
- GK: ...the plants that they plant, 'cause they can't plant taro down here.
- KM: How about *kō*, you think that maybe sugarcane grew?
- GK: I would not count on that unless they water.
But I would count on potato, sweet potato, pumpkin, watermelon.
- CaC: Can *ʻuala* survive on brackish water?
- GK: Well those days, they didn't pay attention, they just plant and let 'um go. Let nature take place.
- KM: They'd mulch 'um eh?
- GK: They mulch, they bring all what ever rubbish they get and they put 'um over there.
- LK-L: And at Kaupūlehu, there's a water cave, about one mile up. So your water quality was better. We're not talking about a room this big [18x40].
- GK: A patch.
- LK-L: You know, grandma them would find a little *puka* [hole], put there plant, one *kelamania* [earthen crock or pot] is plenty water, so long as consistent. And your container, the *pāhoehoe* is contained. The moisture would stay at the bottom. *ʻUala* would grow very well. You know the *kamaʻāina* were fond of the area.
- KM: Yeah, very.
- CaC: So the potatoes aren't necessarily growing in the ground, it could be exposed?

- GK: *Pāhoehoe*, as long as get a little dirt. And they call that 'apo [encircle]. That's the main source of the potato. Not like now-a-days, they plant the potatoes and forget 'um until ready for them dig 'um up. But those days, no. When the potato start growing, and start vining up too long, they *wili* [wind] that potato vine. And then finally go again, maybe two times. Then they just leave 'um until ready. And you'd be surprised how the potato is poking himself out of the dirt.
- KM: So the vine itself, is used to help protect the inner root and the 'uala, the root.
- GK: Yeah.
- KM: 'Cause they...
- GK: 'Apo.
- KM: Wrap it around, 'apo. There's a mound-like and they warp it around like that.
- GK: *Wili* that. And the purpose of that *wili*, according to my parents was, in *wili* so that the potato will not only just grow, grow, grow, but it gives time for the fruit to grow underneath.
- LC: Uh-hmm.
- GK: And that is why every time, they 'apo, rather than let 'um go wild eh.
- VA: You know that pineapple. When I was a young fellow, Maka'eo [the old Kona airport], on the Honokōhau side, they had 1000s of wild pineapple. Like now, there's a lady that's farming pineapple some place in Kailua. It was something big for her, but we always had wild pineapple growing on the 'a'ā. They were not big. They were about this big [fist size]. But real sweet. But nobody cared for them, so during the summer months, we used to go pick 'um up. Those days, never have fruit fly or anything, and we always had good fruits... That pineapple would grow on the 'a'ā.
- CaC: How about tobacco?
- VA: Oh yeah, we always had tobacco on the 'a'ā.
- LC: Yeah, that's right. I used to see tobacco all over the place. And chili pepper.
- VA: *Ni'oi*, yeah, Hawaiian chili pepper.
- KM: Okay. Any other questions or thoughts?
- AC: How about, along some of the trails, we found some cleared areas in the 'a'ā. They're cleared down to the water table, brackish water we thought that they might be used to water nearby plantings. But also, could they have been used...did you guys water your horses with brackish water?
- GK: The buggars drink brackish water. They find the ponds, the brackish water ponds.
- AC: And the horse could drink it? So some of these holes along the trail could have been for the horses?
- GK: That's why I was talking...I'm getting away from here, but getting back to the same principal as you saying about the brackish water. And you know OTEC, that new road, where the bathroom. Right across there had one pool...pool here, pool on the *makai* side. And they all in the same area, but one special pool that you go down. You go down about, I say, four feet, and you drink that water, It's got the taste of brackish, but it's much sweeter than all the other water there.
- [inaudible as jet flies overhead]
- KM: So the pool was about an arm's width across.

- KL: That's the one that I think they recently filled it up with stones.
[inaudible – Uncle Kino and Kimberly discussing site visit to the 'O'oma-Kalaoa area.]
- GK: I'll look if I can find that...to show how that water was. Imagine, that pool was close, not more than 25 feet apart, and you go down and that water had good taste. But why this water was salty, brackish, and this one was fresh?
- KM: Hmm interesting, yeah. A little different source or something.
- KL: That's the funny thing about this kind of lava, where you have the *pāhoehoe* running between this other kind of rock that's porous, and the water can pass through it.
And then it folds. This place, and then just a short distance over, you could have very different. So even two wells right next to each other, and not necessarily the same.
- GK: This is significant. You know that Alena. His claim is that—I don't know—that there's a spring water that comes. But, when they went dig, then they broke the spring water, so the spring water went into the other side...
- CaC: Do you remember having *pua 'a* [pigs] running around?
- LC: Plenty wild pigs. Plenty. I didn't see it down here, but they were having *lū'aus* left and right eh.
- Group: [laughing]
- KM: Karin Haleamau, who stayed down with Auntie Annie eh, down Makalawena in the 1950s...
- GK: Uh-hmm.
- KM: He speaks about the pigs too.
- GK: Well they used to raise pigs eh.
- KM: Yeah, I guess they had some pigs down there and the goats too I think.
- GK: Oh, you name it. You know, her *'ōpelu*, you cannot beat her *'ōpelu*, really *li'u* [well seasoned]. I don't know how she did it... [1177 – brief account removed at Uncle's request. End of Tape 2, Side B; begin Tape 3, side A]
[narrative in progress; question asked about the pond and fish at the north side of Kaulana, near Mahai'ula Bay]
- LC: ...*Awa* and *aholehole*, that's where it is.
- CaC: Did it have a *mākāhā* [sluice gate]?
- VA: Didn't have *mākāhā*.
- CK-P: No need go far, just go there, more near.
- VA: In that particular area [the reef fronting the north side of Kaulana], you can catch *'ū'ū* in the day time and in the night time, as well as *'upāpalu*.
- CaC: That's the pond your talking about, Ka'elehuluhulu?
- VA: No, no. Right in that shore line.
- KM: The right *pōhaku* [stones], right there.
- LC: But, Ka'elehuluhulu, there's something about that place. Every time Papa used to mention that. All the time. You go down there, you going catch it. You going get the fish, what ever you want. It meant so much to him. That area. I don't know why, but it meant so much. Not only to him, but to a lot of people. The old time Kona people, you

- hear them say "Ka'elehuluhulu."
- VA: Hardly anybody knows about that [the fishing resources], you know.
- LC: Yeah. It's sort of a sacred area.
- VA: In fact, right now, I'm the only living person who know about those crevices, that you can get 'ū'ū day time. And this is the only place on the island of Hawai'i that you can catch 'um. You go further on the Kailua side, all in those deep crevices, you can hook the 'ū'ū.
- KM: Even day time?
- VA: Even day time...
- CK-P: And the time the tidal wave, the tidal wave bring the fish and all right in the pond.
- KM: Right inside the ponds eh?
- CK-P: Right in the pond.
- KM: So that's why, small ponds like this, at Ka'elehuluhulu, and 'Ōpae'ula or Kapo'ikai at Makalawena, it would wash in sometimes. And Waiakauhi at your side, Kaupūlehu?
- CK-P: Yeah. *Nui nō ka i'a* [many fish], right in the pond.
- LC: Oh the 'ōpae.
- KM: Even in this little pond right here at Keawehala, 'ōpae 'ula. Uncle Val, could you describe the wind generator? And you told me a story about the sound.
- VA: Yeah. You know the wind generator, it was a large one, and you could sit five miles off of shore and hear that whistling eh. And once a year, we used to come over to add the distilled water in those batteries. But that thing made big noise. Whistle eh.
- LC: [chuckling]
- KM: So this is Magoon's time?
- VA: Yeah.
- KM: And the wind generator was for electricity for this house?
- VA: Yeah.
- KM: And you would go out in the boat and you could hear it way out on the ocean?
- VA: Oh yeah. Then the wind mill [in the walled enclosure at Keawehala] was just to pump water.
- KM: Oh, *mahalo!* Lawa [enough]?
- LC: *Ho'i paha kākou, lawa kēia.* [Perhaps we go, this is enough.]
- KM: 'Ae [yes]. *Mahalo.* I'm going to transcribe the tapes as soon as we can...so that we can get a good transcript. And as soon as I can, I'll get all of this sent back to you folks, so that you can read it and make sure, *pololei* [it's correct], or let's cut this... [end of interview]

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Tessa Gay Kamākia Magoon-Dye (with Robert Dye)
Interview with Kepā Maly
December 22, 1997 – at Waikalua Beach Park

Tessa Gay Kamakia Magoon-Dye was born in Honolulu in 1946. Her father was George Allen Magoon and her mother, the first wife of G. A. Magoon, was Eleanor Gay Johnson-Magoon. In 1936, Tessa's paternal grandparents, Ruth Dorothea Puanani Lindley-Magoon and Alfred Kapala (A.K.) Magoon purchased the Ka'elemakule lands at Kaulana and Mahai'ula. Nearly every summer, from around 1948 to the 1960s, Tessa visited Mahai'ula with her family, and numerous friends that converged at Kekaha in August to celebrate A.K. Magoon's birthday.

In the interview, Tessa shares many fond memories of the summers spent at Mahai'ula. She describes activities which had become tradition among her family. And her descriptions of the house, and uses of various traditional and historic features also add important documentation to the historical record. Tessa graciously agreed to annotate maps of the grounds and the floor plans of the Magoon house, and these, along with pictures from her family collection are included in the interview as well. While there are many stories in the interview which record the deep attachment and *aloha* that her family had for the land, one story in particular, is perhaps most significant. When George Magoon died in 1986, in accordance with his wishes, his ashes were scattered in the ocean fronting Mahai'ula.



*Figure 16 – Eleanor Gay Johnson Magoon and Tessa Magoon (Dye) on horseback
at Mahai'ula; ca. 1948 (courtesy of Tessa Magoon-Dye)*

(Tape 1, Side A)

KM: [brief discussion about the setting of Waikalua Beach Park] ...*Mahalo*. Would you please give me your full name and date of birth?

TD: My full name is Tessa Gay Kamākia Magoon-Dye, born April 9th, 1946.

KM: Thank you. The "Gay," is that a family name also?

TD: Yes.

KM: Tied to the Kaua'i and Lāna'i families?

TD: Yes. My great grandfather Thomas Gay was a brother of Charles Gay. There were two brothers. He didn't ever marry my great grandmother who was pure Hawaiian, but he adopted my grandmother because she was his child. She was an only child.

KM: Ahh. And Kamākia?

TD: Yes. That is a very old name in the Beckley family.

KM: Ahh. So your mama is in the Beckley line as well?

TD: Well, the Magoons are, actually.

KM: Okay. That's good. Now, we're talking about Mahai'ula and Kona, in general, and you were sharing some of your recollections about who your family was and some of the activities that occurred down at Mahai'ula. Would you please tell me who your mom and dad are?

TD: My mother was Eleanor Gay Johnson. My father was George Allen Magoon, the second son of A.K. and Ruth Dorothea Magoon.

KM: Okay. Now on the Johnson, is that the Kona, Paris-Johnson?

TD: No, no. His mother was on the first boat of Norwegians around the Horn, to come to Lāhaina, in 1881. She lived until she was 99 and nine months old. I knew her.

KM: Oh, you've got a rich history!

TD: Yes we've got roots here. Deep roots.

KM: Yeah, deep roots. So your father was George?

TD: Yes.

KM: His father, A.K., and mother, Ruth Dorothea, purchased Mahai'ula, the coastal portion here [pointing to the location on TMK 7-2-05]. What are some of your recollections of... And I think you shared with me that from almost when you were born, every summer...?

TD: Every single summer, yes.

KM: You were going out there?

TD: Yes.

KM: Okay. How did you get there?

TD: Well, we'd land at the old Kona Airport, the old Quonset hut, and go to Kailua first and shop. And then, while my grandmother and her sister [Ruth and Thelma] went shopping, the children would swim off the old wooden wharf there. Then we'd load up the boats, and we'd take the 2½ hour, 16 mile ride down the coast to the house. The kids would be in the fastest boat. Shortly after we passed the Keāhole navigational marker, we'd be able to see the *kiawe* trees and the coconut trees. Then a short while later, we could see the red Magoon house and the older house next to it. And then a little further down the path [on the south side of the Ka'elemakule house], there was an old canoe shed where my grandfather had lined up a pole at the back, and a pole at the front, on different sort of ends. And the two poles, when they'd line up, that would show us where the deep entry channel was. And we'd come in, and there was a red buoy, about 200 feet off the shore and that was as far as we could go [Figure 17]. So one of the older cousins would always dive into the water and swim in and get the skiff to come out and take all the goods, the children would swim after him.

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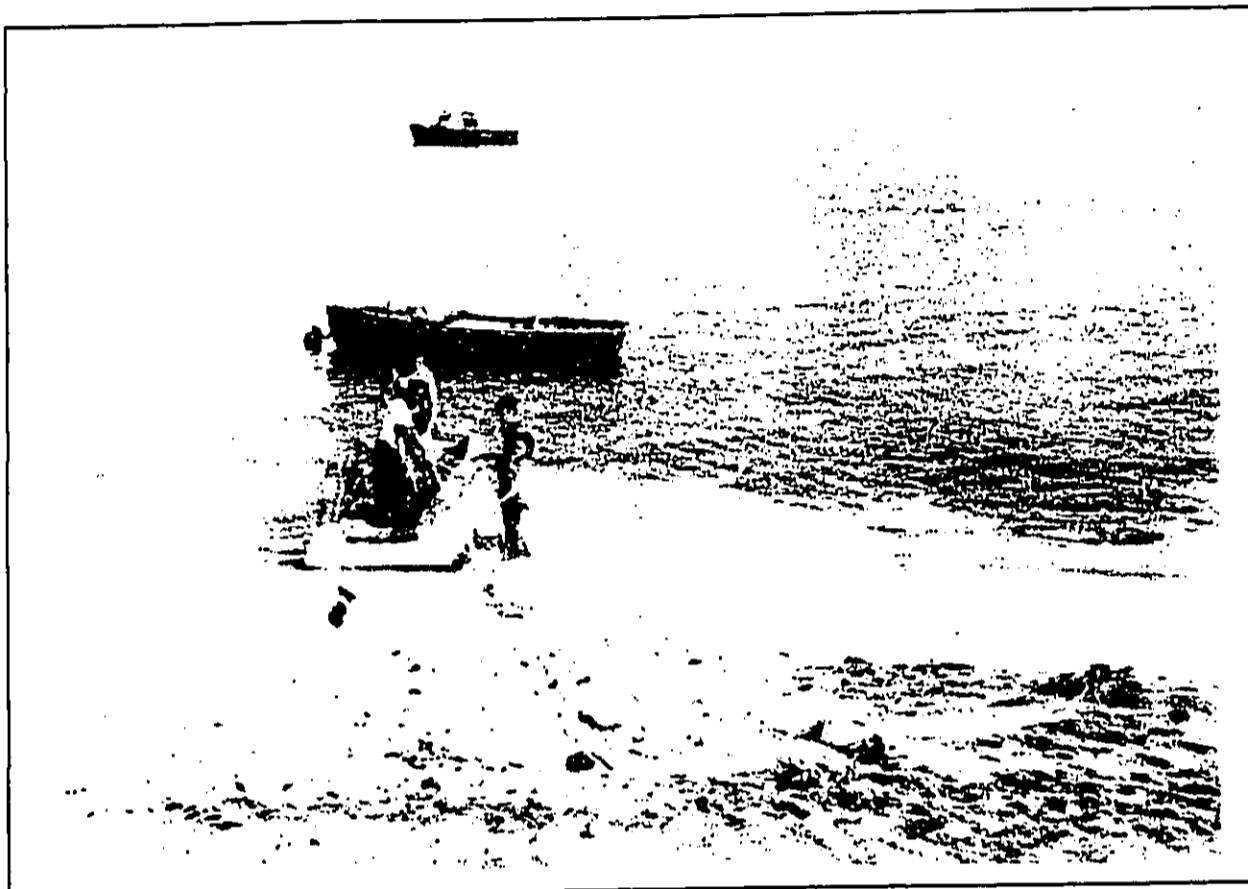


Figure 17 – Family, friends, and boats on Mahai‘ula Bay. In the boat–Alfredo holding the net, and George Lindley Jr. Standing in the water–Tessa Gay Magoon and Robin Murphy; Tessa’s dog Lily, on the shore (ca. early 1950s). (courtesy of Tessa Magoon-Dye)

And when I was very little, there was an old Hawaiian man and an old Hawaiian woman, Jack and Anna Una. They lived at Mahai‘ula. Anna was little, and had kind of wiry, black and gray hair, and she had a couple of teeth missing. The soles of her feet were like thick pads, because she would walk with out shoes, of course, over the lava to Makalawena. She walked along the stones from the King’s Highway that go right through there. And Una was tall, he had white, snowy white hair, he was very quiet and very shy. That was when I was real little. And then later, Una died and Anna lived on at Mahai‘ula.

The next caretaker was a Filipino man named Porto. I don’t remember what Porto’s last name was. I’m not sure, but I think that he and lived at Mahai‘ula until Anna died. And she must have died in the late 50s. Porto lived on there for a while, and then later, he moved to Makalawena. He had a tiny little house on stilts. His chickens and goats lived in the house with him [chuckling].

Then later on, there was an older Filipino man named Antonio, who was the next caretaker. And then later on, he moved over to Makalawena. So it was kind of a constant...they were back and forth, and back and forth.

KM: Interesting, I wonder what that connection was?

TD: I don’t know.

KM: Aunty Annie Una, she was a Punihaole and so the tie brought her back to Makalawena.

TD: I see, so you know her.

KM: Of her, yes. So I wonder how it is, with the families, even the later Filipino caretakers

were going to Makalawena as well.

- TD: Yes. That seemed to be the next step. I have some photos that I was trying to locate to show you.
- KM: Wonderful.
- TD: I'll give you some copies.
- KM: Thank you.
- TD: There was a little old donkey paddock right in back of the canoe shed.
- KM: Okay, may I ask you, was the canoe shed, as you recall, was it dry stone, set stone, or was it...?
- TD: It was wooden, there were no walls. It just had [gesturing, uprights]...there were two small, dry-set stone footings on each side of the canoe shed that the upright poles were set in. They weren't more than 12 to 18 inches high and about 12 inches wide. [Figure 18]
- KM: Post and pier, sort of?
- TD: Yes, yes.
- KM: Okay. And in describing it earlier, just before we started recording the interview, you'd mentioned that when you would go from A.K. Magoon's house, there was the old Ka'elemakule house. There's the steps and wall that goes down.
- TD: Yes.
- KM: And then a little further down, there's some trees and stuff there.
- TD: Yes.
- KM: Is that basically where the canoe shed was?
- TD: Yes [thinking], maybe not even that far. The front yard of the older house is right there. There is a rock boundary wall, and just on the other side of that [south], is where the canoe shed was.
- KM: So just past that rock wall there.
- TD: Yes, just beyond that rock wall.
- KM: Okay.
- TD: And it was pretty big. It was, I would say [pointing], at the end of that side walk there, a square this big. And the canoes would be upside down inside.
- KM: So what's that, 30 feet or so?
- TD: Yes, something like that. And so the canoes would lay upside down, and the amas [outriggers].
- KM: So they had canoes down here as well?

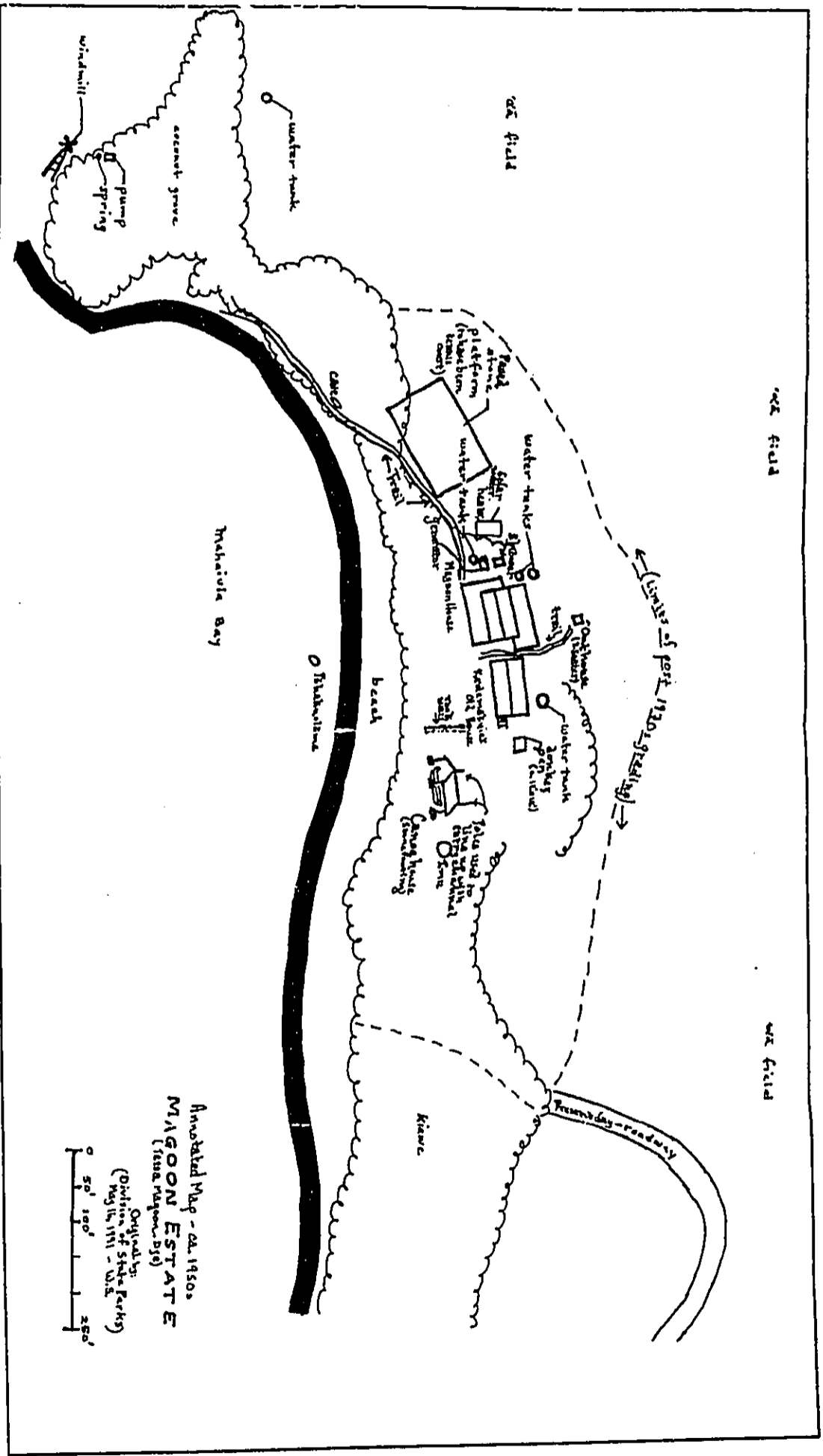


Figure 18 - Grounds and Features Magoon Beach Home at Mahalo'ula (ca. 1950s)

- TD: They had canoes, some skiffs and outboard motors and such. Alfredo had a canoe. You know how the old Kona canoes, back on the end and were fitted with an outboard motor?
- KM: Yes.
- TD: We'd go *'ōpelu* fishing in that boat, early, early in the morning. But, right back here [the area behind the canoe shed and Ka'elemakule house], was that donkey paddock. It's right back here, and when I was very young, the cowboys from Hu'ehu'e Ranch would come down over the lava and put their... Actually, my grandmother [Ruth Magoon] had a donkey, whose name was Puanani, because that was her own name. The donkeys used to eat those long yellow pods from the *kiawe* trees. So we'd feed them the pods, they just loved 'um, and we'd go riding around.
- KM: So that paddock, little holding pen, was just behind the area of the canoe shed?
- TD: Yes. Right now, there is a utility shed there. Right between the utility shed and the end of the Ka'elemakule house, it's right back there, and it's still standing today.
- KM: Okay. That helps to answer some question about what we see on the ground.
- TD: Yes, that was a holding pen. [thinking] What else can I add? I know that down here [pointing to Keawehala on the map], that coconut grove, my grandmother planted that coconut grove.
- KM: So Keawehala, the one that is enclosed with the stone wall and the small *'ōpae* [shrimp] ponds?
- TD: Yes, right. My grandmother planted the coconut trees, with her two little sons. My father had an older brother who died.
- KM: Yes.
- TD: She planted those. And then there was that old windmill standing there, it's on its side now.
- KM: Right. Was that the water source for you folks when you were young, or did you bring your water in for drinking?
- TD: No, Anna used to drink the water that runs right into the little tiny beach, right outside of that walled area [Keawehala]. The water is just right under the sand, and she used to drink that water. There were maybe five or six water tanks.
- [following the interview, Tessa also mentioned]: The windmill was used to pump water from one of the ponds in Keawehala to the tanks at the house. The water was used for bathing, washing dishes, and other domestic needs.
- KM: Do you remember hearing the pumps run, the generator?
- TD: Yes, it was an active windmill, it was running. I remember that the water tanks had a slick coating of something like oil or kerosene, something that they would put in on the top, so that the bugs and algae wouldn't form in the water tanks. And right in back of the house, the water tank had a little muslin bag to strain out the impurities [chuckling].
- KM: So that's the little tank behind the house?
- TD: Behind the house. My grandmother's sister-in-law used to wash her clothes in the little pond at the coconut grove. In fact, we all did.
- KM: Ahh. So within the enclosed coconut grove. The name of that area is recorded in the 1840s, in the Māhele, the Land Commission Award testimonies, as being Keawehala...the walled enclosure and a small canoe landing.
- TD: Oh yes.

- KM: It was ideal because of those water sources. Did you folks ever drink water from that area?
- TD: We did. The kids drank water out of there, at low tide, when it runs down, you could just get it and drink it. And that's also, where all the...when you through net, the little fish. *halalū*, they grow into *'ōpelu*. They run right there, in that little bay.
- But, my grandfather used to dredge out these ponds, and this one [pointing to the Ka'elehuluhulu pond], just after we'd arrive.
- KM: Okay, so the ponds that are at Keawehala, as well as the pond...
- TD: As well as this one [Ka'elehuluhulu].
- KM: At Kaulana, Ka'elehuluhulu.
- TD: Yes, they had a pump and they'd get all the muck and grass out.
- KM: Hmm. This is a large pond here [Ka'elehuluhulu].
- TD: Yes.
- KM: What was the purpose of this?
- TD: I think it was just to clean it out, and then he'd get *'ōpae* [shrimp].
- KM: Uh-hmm. Do you remember any fish or anything in here [Ka'elehuluhulu] by chance?
- TD: Yes, yes. There were fish there and lots of *'ōpae*. So that was a big job for them, for the men. They used spend a couple of days doing that.
- KM: So you folks would go out and spend the whole summer, pretty much?
- TD: Well no, the month of August. Because you see, his birthday was August 15th, and every year that would be a huge, big event. Maybe 80 to 100 people would come and stay.
- KM: Wow!
- TD: They come by boat, the place would just be jam-packed with people.
- KM: When we were talking earlier, you'd mentioned Johnny Mano. What was his role in this?
- TD: He was a friend, and I think, he was also an employee. He would take care of things during the year. See things that had to be fixed, and he would do, generally, the work.
- KM: And did he help run the boats back and forth with the families and stuff like that?
- TD: Oh yes, he did. And then, later on, after my father, George, got Mahai'ula, and my father and his second wife, Luarka, moved up to Hōlualoa, or near there. Johnny was still working for them. So, I knew him well. Actually, he was one person who, at Honokōhau, saw the marchers of the night, the *huaka'i pō*. And he never would talk much about it, but he saw them.
- KM: Hmm. Did you folks ever have...since you bring that up, did you folks ever have any experiences out here, along the trails, night time or anything that you recall, or heard stories about?
- TD: [smiling] No, it was just, I think we were more afraid of what was with us in the real life [laughing]. But I remember, we had a communal, upstairs was a women's communal bedroom [Figure 19]. Women and children were all upstairs, and the men slept on cots down stairs, army cots. My grandfather was right near the door on the *makai* side.
- KM: Oh, so right on the beach.
- TD: Yes, on the main floor, as you look at it [drawing a little diagram – Figure 20], all this

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was the men's sleeping area. [marking locations on the sketch map] Here, there was just the table and a big banquet sideboard where they used to put the fishing tackle and stuff in. And upstairs, was my grandmother [Ruth]. Then her sister, Thelma Lindley Murphy, had the first bed... [Figure 19] And in descending order of importance [chuckles], each woman and the children had their beds.

I remember, we had no bathroom at that time. There was a two-seater outhouse, along that little ribbon of concrete that runs straight back into the lava behind the house [Figure 18]. So we would go back there in the night. I remember as a child, I'd run out, have to go to the bathroom in the middle of the night [chuckling]. First, we had those little pans under the bed, but when you got too big to use that, then it was outside. And I'd sit there, I could hear the crackle of the lava, and I knew [smiling] that Pele's white dog was waiting to get me [laughing]. Then I'd spend hours, deciding whether I was going to run back to the house, or if I going to sit there all night. But I know that many of the adults were quite aware of spirits and that. But as a child, you kind of enjoy the moment rather than think of that.

KM: Yeah, exciting! Do you recall about when your grandfather built the two story house?

TD: No, I don't. It was already there when I was born, so I think it was shortly after he got the place. So I don't remember. And then, there's that older house too.

KM: Yes. Did anyone use that older house?

TD: Yes, Anna and Una used that house. They lived there.

KM: And that's the house that's basically four rooms and a veranda on the front.

TD: Yes. In fact, I have pictures of my own Hawaiian grandmother, Bella Gay-Johnson and Annie sitting on the porch in their mu'umu'us, and my grandmother Bella's hair all done up in flowers [Figure 21].



Figure 21 – Bella Gay Johnson and Annie Una seated on the porch of the Ka'elemakule house. (Jack Una standing in doorway, and unidentified woman nursing a baby to the left side of door (ca.. early 1950s). (courtesy of Tessa Magoon-Dye)

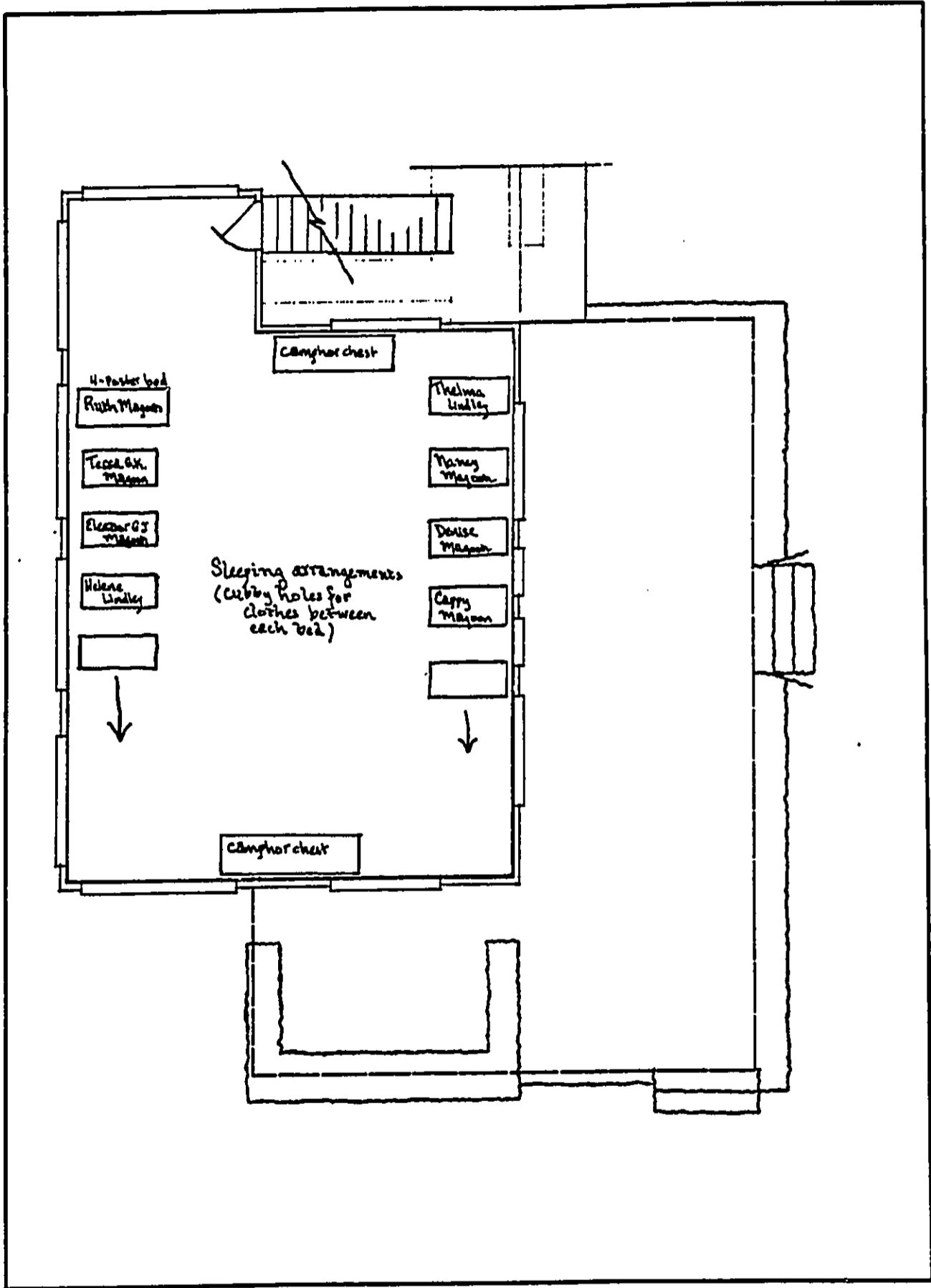


Figure 19 – Floor Plan (second floor), Magoon Beach Home at Mahai'ula (ca. 1950s)

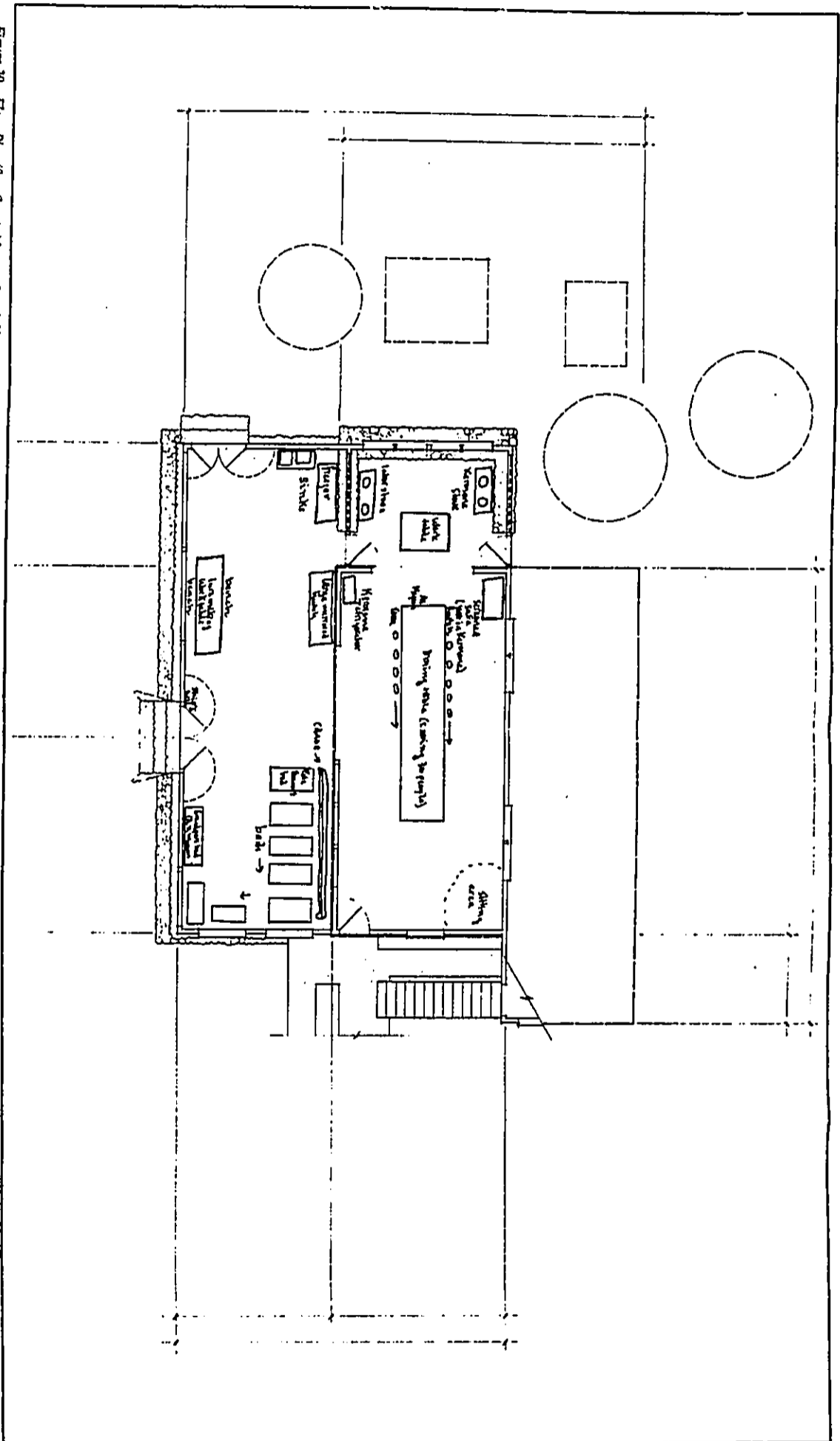


Figure 20 - Floor Plan (first floor), Magoon Beach Home at Mahai'ula (ca. 1930s)

KM: If it's at all possible, I'd love to be able to make a copy of that we can include them as a part of your story.

TD: Sure. I think I have quite a few pictures of our days at Mahai'ula. So anyway, on August 15th, everyone would be assembled, they'd have a pig and they would do the *imu* down past the canoe shed. Sort of in that opening, before the path way. Then they'd cook everything, and people would bring fish, *loli* [sea cucumbers], *'ōpili*, and *wana*. And my grandmother and her sister, and Anna, knew every squid hole in the bay, and they'd go squidding. Everything would be prepared, and then we'd have a party. I even remember Francis Brown coming from his own home at Keawaiki in his big, huge speed boat. He'd come roaring into the bay with a big tumbler of scotch [laughing].

KM: [laughing] Yeah, you hear those stories from the guys, from the old people.

TD: Yeah. They would have music. Oh, Ray Kinney was playing, my grandfather and he were great friends.

KM: When did your grandfather pass away?

TD: Nineteen-seventy-two (1972).

KM: So A.K. passed away in '72?

TD: Yes.

KM: How about your father?

TD: He passed away when my daughter was about [thinking] six years old, my oldest daughter. And now she's 17, so about 11 years ago, 1986. As a matter of fact, his ashes are scattered in this bay [pointing to Mahai'ula Bay on the map].

KM: So George's ashes?

TD: Yes. He died at Mahai'ula, and his ashes are out here.

KM: Ohh! Was that done at his request?

TD: Yes, yes.

KM: Who participated in that, do you recall?

TD: There were just a few people, close family and friends. My father and mother divorced when I was 18 months old, and later, he married Nancy. So I have a brother, Keoki, and a sister Cappy, and Nancy also had a daughter, Denise, who carried the Magoon name. They're a little bit younger than I am, but we didn't grow up in the same households. Let's see, what else can I tell you?

KM: Well, let me ask you a question. And please, if anything comes to your mind, let me know.

TD: Okay.

KM: Before the interview, you'd mentioned about the trail that came down here. Now, you've shared about coming in from Kailua on the boat. You landed at Maka'eo, the old airport, go to Kailua and getting things, then coming out on the boat.

TD: Uh-hmm.

KM: You'd mentioned also, that at times, you folks would ride down from Hu'ehu'e side on the Makalawena Trail?

TD: Yes, those were later years, maybe I was 12 years old.

KM: Okay, so mid '50s or so.

TD: Yes, mid to late '50s.

KM: So you would drive four-wheel from Hu'ehu'e...?

TD: On the Makalawena Trail and then just behind the house. We'd come along that way.

KM: Behind Makalawena house and the pond area there?

TD: Yes.

KM: So the old jeep road came in behind...

TD: Yes.

KM: And then you'd come up behind Mahai'ula?

TD: Yes.

KM: I guess those were the two primary accesses you folks used?

TD: Yes. And then in later years, this other road.

KM: Ahh, was this road that's sort of the present road used now, made by your family, or was that later?

TD: That was later. My father [chuckling], also used to drive off the end of the end of the runway.

KM: So the new Keāhole airport runway?

TD: Yes, but not the lengthened one, the shorter one there.

KM: Yes. So he would drive...the road would come out along there?

TD: Yes.

RD: The runway ran out and the road was right there [chuckling].

TD: Yes [laughing], that's right, right in the middle of it actually.

RD: Yeah.

TD: And I think, actually, my grandfather may have still been alive when they punched out that road. But later, there was a man who...my dad did part of this road [pointing to the present Kaulana-Mahai'ula Road]. Along with the fellow who was running lū'aus down there at the second beach, the beach near the present parking area and the 'ōpae ponds [Kaulana].

RD: A Portuguese-Hawaiian man.

TD: Yeah, Joe Kaipo, he had this company called "Hawaii Undiscovered" or something like that.

KM: Okay, so that was in your dad's time?

TD: Yes.

KM: And they were doing sort of a little visitor services program.

TD: Yes, yes.

RD: He had a lease.

TD: Yes, Joe Kaipo.

KM: Okay, so Kaipo was responsible, in-part, for this road coming down here?

TD: At least the improvement on the last portion, I believe. And then my father, his wife and

his son Keoki, were doing a diving lodge for a while. And these other people, Ray and Gloria (I think it was Gloria) Dameron, were running the diving lodge. But I'm not sure if it was ever too successful.

- KM: Okay. So you would come in by boat, and by the canoe shed, there were two [pauses]...
- TD: Poles [Figure 18].
- KM: Poles, that were set up to align the channel coming in.
- TD: Yes. See, you can't come straight in because there is that reef. You have to come farther around [pointing it out on the map] and come in this way [towards Kāwili Point side].
- KM: Yeah, that's right. By that canoe shed, in the water, and fronting Ka'elemakule's old house, where Aunty Annie them stayed, there is a stone...
- TD: Pōhakuolama?
- KM: 'Ae [yes]. Okay, in the water, so you heard the name of that stone.
- TD: Yes, yes.
- KM: What did you hear about that stone?
- TD: I heard that that stone was a fishing god, a fishing goddess, and that fishermen would give her presents. It had to do with, a person who was in love or something like that. And I know that at certain times of the year, a muddy streak comes across the bay.
- KM: Ahh.
- TD: You must know this.
- KM: That's good to hear. So, did you, by chance, see that occurrence, the reddening of the waters?
- TD: No, I can't remember it myself.
- KM: Okay. But you heard that it was a fishing god, or goddess?
- TD: Yes, yes.
- KM: Were you children then, in your time, warned away or instructed away from that stone?
- TD: No, we used to go and sit on it. I had a little tiny boat. Actually, it was my thinking place. I had a little boat and a two horse-power outboard engine. A tiny little boat. I used to go out and sit all by myself [chuckling] at low tide and just think, and hold on to my boat. I'd come back in later when I felt a little better.
- KM: Okay.
- TD: So I was never fearful of that or anything.
- KM: Okay. Did you ever see Annie Una or any of the people *ho'okupu*, offer fish at that stone or anywhere else?
- TD: No, I can't say that I did. No.
- KM: Okay. Did you hear of any *heiau* or ceremonial places, a fishing shrine or anything along any of this trail area?
- TD: There were some out here, I believe [pointing to a location on the map]
- KM: Ahh, so towards Kāwili Point?
- TD: Yes, yes.
- KM: I'm going to just mark the general area on the map, at Kāwili Point [Figure 14].

TD: Okay.

KM: Because we've been discussing Keawehala.

TD: Right.

KM: The house area, Pōhakuolama, or Pōhaku-wahine, roughly in about there.

TD: Right.

KM: Now you know, if you come, say, the other way then...and in your time, you don't personally remember seeing anyone leave a fish offering or something?

TD: No, no. Because after Anna died...

KM: And she died by the mid '50s?

TD: I believe she did. Because I remember seeing her. And actually, when my grandmother [Ruth] passed away, she passed away at her home at Diamond Head, in about 1961, maybe '59. In last delusions, she saw Johnny Mano coming to get her to take her to Anna, and they would be together. And she would say, "He's coming now, I see him coming to get me, so that I'll be with Anna." There was a real bond between the two women, she spent a lot of time together.

KM: That's very interesting. You'd mentioned, that she was a descendent of the Beckley line?

TD: No, that was the Magoon side. My grandmother, Ruth Lindley is related to the Vreedenbergs, and her background is Kona too.

KM: 'Ae, there may have been some ties, distantly, at least.

TD: Yeah. My grandmother was a quarter Hawaiian, and her father was a doctor. He left her mother and siblings, and went to the Philippines and never came back. She went to Punahou school, and was really a *kama'āina*, and she was very sensitive to Hawaiian things. More than my grandfather, he was a fisherman [chuckles]. He used to manage American Sanitary Laundry down in Kaka'ako.

KM: Okay. That is a beautiful story. You know, when Hannah Springer's grandmother died, Thelma Stillman-Springer's mother died...

TD: Thelma's husband was Pilipo wasn't he?

KM: Yes.

TD: He was the manager of Kailua Liberty House a long time ago.

KM: There is a similar story of this bond, that Annie Una knew of the passing of the grandmother and she walked up to Hu'ehu'e side, and they could hear her wailing, the *'iwē*.

TD: Ohh-yeah.

KM: Well, we're looking at the shoreline over here. You know, if you come a little further over to Kaulana.

TD: Uh-hmm, that's beautiful there.

KM: There is the *pāhoehoe* flats...

TD: There were houses in there [pointing to the location on the map] when I was little. The foundations were still standing.

KM: So stone...?

TD: Yes, stone foundations.

KM: So in this area, sort of where the bay starts to come back to the edge of the *pāhoehoe*?

TD: Right. There's an outcropping of *pāhoehoe*...Actually, when I was little, the sand kept hardening because there were not that many people walking on the beach. We could break it down when we were children, but now, at low tide, it's hard. And that little bay right here, back of there, were lots of house foundations. They were still clearly visible.

KM: Was it dry-set stone? Or did you see any of the old mortar cement-type, that you recall?

TD: I think it was dry-set stone, I believe.

KM: Okay, that's good to know. You know, it's very interesting because in the Māhele records, there were perhaps ten to fifteen individuals named as residents in this area between Mahai'ula, Keawehala and Ka'elehuluhulu. You know, just a little ways past this bay that you're talking about, there is a large stone, partial enclosure?

TD: That's right.

KM: Do you recall anything about that?

TD: No. I just remember that old wreck of the boat that is almost gone now, it was pretty visible. That was wonderful to play on. We used to spend hours playing on that old thing.

KM: Uh-hmm. And that's fairly close to the area of that large stone enclosure is.

TD: Yes, I think some of it has washed back a little bit. But we'd swim right in here [pointing to the cove on the Mahai'ula side of the *pāhoehoe* point], I don't know if the same one lives there, but there was a big *hihimanu* [stingray], who lived in there. And it was so tame, it used to come up, almost by the shore. It would swim back and forth, and it was huge, huge.

KM: Ohh!

TD: I would say [extending her arms out], bigger than I could reach.

KM: So more than five feet across.

TD: And actually, it was almost like it wasn't just a fish.

KM: Hmm.

TD: So that was something.

KM: Interesting. As you continue then a little further into Kaulana, you'd mentioned that the pond here...

TD: Yes, there were two.

KM: Yes. That your grandfather used to clean out.

TD: Yes. They had a little tiny generator, big hoses and I think that they would dump it back in the lave some place. They wouldn't dump it in the ocean.

KM: Hmm. Were they...do you recall, still gathering 'ōpae?

TD: Yes, oh definitely, 'cause we would eat them.

KM: Ohh! So it was like the clear type, white 'ōpae?

TD: Yes, right, and some of them seemed like they were pink, coral colored. These were about that big [gesturing with her fingers].

KM: Okay, so these were about an inch or something like that.

TD: Yeah.

KM: Do you remember if they gathered fish out of the ponds at all?

TD: No, I don't think they did. They were so busy trolling and casting. My grandfather and my grandmother's brother used to cast off the shore for *ulua*. He used to run back, because he was short squatty little guy, and heave the line way out. [pointing to an area on the map], maybe out here. And they'd tie a bell onto it, and they would pull in, oh, huge, 50 to 100 pound *ulua*. In the night, we'd go down and ring the bell and run away [laughing]. And they would actually sleep in some chairs down there.

KM: [laughing] So this was sort of in front of the canoe shed area, or a little further over?

TD: No, no, farther down, almost by where the lava begins to come into the ocean. Along that little trail there.

KM: Okay. So just a little past where the house sites were?

TD: [looking at the map] here, before the house sites, and up there, the land rises, and the beach is pretty steep.

KM: Sure. [drawing on the map] So kind here [writing on map] *Ulua* fishing ground.

TD: Yes, yes. And there's that walk way that must still exist that goes right along there.

KM: Yes, okay.

TD: And you know, that cave on the right hand side, as you go leave the house and go down towards the coconut grove [Keawehala]. You know that cave, don't you?

KM: I know of it.

TD: Okay, supposedly, the King's Trail went right along that walkway, and supposedly, a giant was living in there, who would jump on the rucksacks of travelers and kill them. He'd steal their food and steal what they had there... You can see remnants of where people built fires and supposedly, he lived in that place, that cave.

KM: So the walled enclosure?

TD: Before that, right about here [pointing to location on the map]. The house is there, right along this walkway, right here.

KM: Okay.

TD: And so supposedly, they had to catch this guy. So a big strong man with his rucksack loosely attached to him, walked by, ready, and when he jumped on him, the sack fell off and he was able to subdue him.

KM: Now, who told you this story?

TD: [thinking] I just knew it, my grandparents told me that story.

KM: Okay, did you hear them use the term '*ōlohe*'?

TD: '*ōlohe*? No, I can't say I did.

KM: Okay. '*ōlohe* is one of the terms used to describe these people that like that...

TD: Robbers.

KM: Yeah. They're skilled in fighting techniques.

TD: Right.

KM: And they often waylaid people along trail sides like that.

TD: Right.

KM: So the cave is on the side here, and we've marked an approximate location on the map.

TD: Yeah.

KM: A little ways past the house, and before the walls at Keawehala and the spring area.

TD: Yes, yes.

KM: Along the old shore line trail there.

TD: Yes.

KM: It's interesting that you bring that up... If you visualize the house, if our back is to the ocean, the left side of the house, and then there was the old generator?

TD: Yeah.

KM: And a little ways past there, is a flat, almost stone paved area.

TD: I know, I don't think that was there before my grandparents. I think my grandparents put that there because they had visions of a tennis court or something.

KM: Ahh, somebody else had brought that up, but I'm glad to hear it from you.

TD: Was it a tennis court?

KM: They said, that's what they'd heard, that it was going to happen. But we didn't know if it did, or didn't.

TD: No, it didn't.

KM: It is nicely done, paved with small stones.

TD: Right.

KM: In fact, there are some *'ili 'ili* [small water worn pebbles]...

TD: I know there are, beautiful *'ili 'ili*.

KM: So they were thinking of a hard surface tennis court.

TD: I guess so, that's what I heard. That's what I heard.

KM: Ahh. Can you imagine playing tennis in the heat out there?

TD: [chuckles] I know, in August. I remember when they built the stone wall, with the steps coming up.

KM: Yes, off of the beach.

TD: Yes. My hand and foot prints are in that stone wall, 1951. And they're about that big [chuckling – gesturing about 3 or 4 inches].

KM: Ohh! Wonderful.

TD: I remember them building that up. There was an older one before, but I guess it got washed away by a winter storm or something. And even that one's falling down now.

KM: Where would you place the cave that you are describing, in relationship to that *kahua*, that tennis court, or flat area?

TD: Okay, that *kahua* should be back here.

KM: So if the house is here, it's just past there.

TD: Right. And it's along that stone walk way.

KM: Yes, you can see it follows the walk way right along there.

TD: Yes. Actually, what I remember most about that is that we used to dry clothes on it later, and also, we had some big boxes for drying 'ōpelu. 'Cause the sun was just blazing down, you know.

KM: Yes. Did you folks gather salt anywhere?

TD: There were salt beds out here [pointing to the Kaulana salt works].

KM: So you remember the salt beds?

TD: Yes.

KM: Back at Kaulana, Ka'elehuluhulu.

TD: Yes.

KM: Were they still using those salt beds at all when you were young?

TD: They weren't gathering it for our table, but we knew they were there. They were just here.

KM: Okay. Did you hear anything about this salt beds, other than knowing they were there?

TD: No, no. [pauses, thinking] We would go back in the lava. And I remember once, when I was very little, two men came, and I think this is what Sonny Gorelangton is alluding to [in a letter dated Oct. 23, 1993; for further discussion on the Magoon family's protection of the burial site, see the group interview of Nov. 8, 1997—tape counter # 920]. They were archaeologists or somebody who were interested in caves, and he told them not to go near those caves, and they did. They went and took some things out and came back. And my grandfather was furious. And I think he either scared them so much, or they couldn't sleep or something, but they went back and returned the items and left.

KM: Good. The cave is marked, and there is a trail that runs up along this boundary almost, of Mahai'ula and the land of Kaulana. So the trail came out, behind the house, along here [pointing out location on the map], and this is the cave that's marked on the map here.

TD: I see.

KM: It's almost a mile *mauka*.

TD: Yes.

KM: So you'd heard that the cave was back here.

TD: I saw it too. But, it was only little. We were back there one time. One my cousins knew where it was and he flashed his light in, and we saw some bones. But it just had a small opening, maybe only that big [gesturing with her hands].

KM: About one foot and a half across?

TD: Yeah.

KM: There is a wall built around that area now. Did you hear who built that wall?

TD: No.

KM: We're told that it was your grandfather or father.

TD: I don't know.

KM: Otherwise, to the best of your recollection, it was just open?

TD: Yes.

KM: So you don't remember going through a wall then?

TD: No, I can't say I do. It was out in the open field at that time.

KM: Hmm.

TD: I really don't know much more than this.

KM: Well, these stories are wonderful. These are the kinds of things that help to animate, to bring the history to life again. And the gatherings at the house sound incredible.

TD: They were. They were absolutely incredible.

KM: Did you folks...you had a generator.

TD: Yes.

KM: You'd run electricity out there.

TD: Yes.

KM: Did you folks bring a refrigerator out there?

TD: We had an old kerosene refrigerator.

KM: Ahh, a gas refrigerator.

TD: Yes. Actually, we had cold food. Later, we even had a freezer, but in the early days, we had an old kerosene refrigerator. And I remember we had a lot of hard tack [said with emphasis – chuckling], and vienna sausages.

KM: Hoo! High salt diet eh; vienna sausages, brackish water [laughing]

TD: I know [laughing]. My grandparents had a long dining room table. They'd seat, maybe 15 on a side [Figure 20]. And my grandmother and her sister would cook for all of these people. They made fish chowder from these *ulua*. And my grandfather, and everybody had their place in descending order. Grandmother on the left. I was on the right, and it would go on, down, down, and he'd serve dinner every night.

KM: Did you folks have *poi* come down, or was rice?

TD: I can't remember too much *poi*, rice, lots of rice.

KM: Uh-hmm. You'd mentioned, that there were times that there were like 80 people out there.

TD: Yes.

KM: Was that like during the whole month?

TD: No.

KM: Special times.

TD: The birthday time. They would start arriving, maybe four or five days before and by that time the *pua 'a* [pig] would be living down by the canoe shed.

KM: [chuckling] Ready for the *imu*.

TD: Oh, the afternoon on the 14th, all the children would have to go and plug their ears because he was our pet [chuckling]. We'd made a pet out of this *pua 'a*, and every year, our poor pet would be screaming in agony. But they had...some time later, they had fighting chickens down there, I think. When Alfredo and them were there. But some times, they'd do things that I would consider barbaric. Like, they'd get a mongoose and put a dog in with the mongoose and let 'um go.

KM: In the pen, the donkey pen or something?

- TD: No, it was like a cage, a kennel. But most of the time, people fished and just enjoyed themselves. As a child, you know, you don't realize all the dynamics that's going on [chuckling], but there was a lot of it. Lots of parties. Lots of *Waiomaleka* [chuckling], you know, alcohol. Cocktail hour, that used to last for days [laughing].
- KM: One long hour eh.
- TD: I know [laughing].
- KM: So your time at Mahai'ula sounds like it was a real bright time in the memory of your childhood.
- TD: It was a real bright time, just the most perfect time. And everything would come from Honolulu in laundry bags. My grandmother would bring linens and the they had these big camphor chests that opened. We had army issued blankets and they'd set the whole thing up. And for cool nights, we'd have *kihei pili* [blankets or shawls], real old with calico, and mosquito nets. We'd sleep in sandy beds every night. But you know, in the evening after dinner, we'd go and get *kūpe'e* [shell fish] on the rocks down here [pointing to location on map].
- KM: So below Keawehala, in the little sand areas like that?
- TD: Yeah. So we'd do all kinds of things.
- KM: Did anyone play music in the evenings at all?
- TD: Yes.
- KM: And was there a lot of this, what they call "*kolekole*," talking story time?
- TD: Yes, absolutely. But then, you know, after a while, I remember people being quite silent and just enjoying the evening, the quiet, and the water lapping up and down. [thinking] What was I going to say?
- KM: Music?
- RD: Pete Beamer.
- TD: Oh I know, yeah, Pete Beamer was my grandfather's dear friend. Pete Beamer was the proprietor of Beamer's Store [in Hilo]. His daughter was married to my uncle Marmion Magoon. And so Pete and my grandfather were dear friends and his wife, actually wrote the song Mahai'ula. Helen Desha Beamer. After they visited... [end Tape 1, Side A; begin Side B]
- KM: Say that again.
- TD: *E ō, e Puanani me Kapala, kou inoa...* [Respond, o Puanani and Alfred to your names...] And that was after her visit. It was the song that she gave to them as gift...

Mahai'ula
(by Helen Desha Beamer)

<p><i>Hoele a'e kāua la</i> <i>I ke kono a ka makemake</i> <i>E kipa, e luana, e ho'onanea</i> <i>Me Puanani a me Kapala</i></p>	<p>Let's go, we're Invited and wish To visit, enjoy and relax With Puanani and Kapala</p>
<p><i>A hiki i Kailua</i> <i>Kau i ka moku, "Imua" he inoa</i> <i>'Au aku 'o ia kai loa</i> <i>Kaulana Kona i ke kai malino</i></p>	<p>Arriving at Kailua Board the boat, "Imua," by name Sail along the sea of Kona famous for it's calm</p>
<p><i>Kū i ke awa 'o Mahai'ula</i></p>	<p>Anchor in the cove of Mahai'ula</p>

He ani lima ka'u 'ike aku
Kau i ka wa'apā hoe lima
A pae aku i ka 'āina...

I see hands waving
Board the small boat and row
Until (we) reach land...

...Kipa ia ka 'olu o ka home
Ho'ola'ila'i me nā hoa
Moani ke 'ala o nā pua
'Oliana, aloalo, pua kalunu

...Inviting is the cool comfort of the home
Lighthearted contentment among friends
Wind borne fragrance of the flowers
Oleander, hibiscus, crown flower

Unu mai nā 'ono o ke kai...

Delicacies from the sea are mounded
[upon the table]...

...Aloha e ka leo o kahi 'enekini
I ka hone mai nā hola like 'ole
E ha'i mai ana i ka nūhou
Ua 'ā ka uwila iā kahakai...

...Greeted by the voice of the generator
Softly humming throughout the hours
Telling the news
That electricity has come to the beach

Hui:
He nani, a he nani maoli nō
Mahai'ula i ka la'i
Hāli'i mai la i ka loa
Me ke kai kahakai ki'i lilihi i ke one

Chorus:
Beautiful, how truly beautiful
Mahai'ula in the calm
Spread out there lengthwise
With the sea drawing lace pictures
on the sand

E ō, e Puanani me Kapala kou inoa
to your name song

O answer, Puanani and Kapala
[M. Ka'aihue 1991]

KM: Do you know the melody of that song?

TD: Yes.

KM: Would you sing it?

TD: [laughing] Oh no, I can't.

KM: [laughing]

TD: But the Brothers Cazimero. And Mahi Beamer was the one that recorded it first. That song gives you quite a bit of information about the parties that wen on at Mahai'ula. But, later on after his wife died, Pete used to come down with my grandfather. And he had an old cigar that he always chewed on. And his teeth were always kind of on the yellow side from this cigar. And he and my grandfather used to sit at this table [downstairs room, facing the ocean] and make fishing lures and they concocted this *wai 'ele'ele palu*, the bait for *maiko* [fish] that we would take and go down to Kūki'o and go *maiko* fishing.

KM: Ahh. So you folks would go down to Kūki'o?

TD: Yes.

KM: How would you go?

TD: Oh, we'd go by boat.

KM: To Kakapa, or the white sand bay area, like that?

TD: Yes, and then walk over on the rocks and sit. And we'd each have...even the kids would have a little piece of bamboo, or something like a little pipe. And we'd have the paste in the pipe, and we'd dip our little hooks in it and catch the *maiko*. [Figure 22]

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Figure 22 – Cleaning fish at Mahai'ula. George Lindley Jr. Eleanor Gay Johnson-Magoon, Ruth Magoon, Thelma Lindley, and Helene Lindley cleaning fish; along the trail on the north side of the house. The washing machine, on the makai side of the trail, served dual purposes—washing clothes and softening he'e (octopus) for family meals. (courtesy of Tessa Magoon-Dye)

- KM: Hmm. I'd seen in the records at the State Survey Division, in regards to the beach lots at Kūki'o, that your grandfather; and his map is in there, and I'll get you a copy of it with his letter regarding it. In 1939, he was trying to buy the Kūki'o beach lots.
- TD: Wow.
- KM: So he really had an affinity...loved that ocean, Mahai'ula to Kūki'o like that.
- TD: Yeah.
- KM: So you folks used to go down, take the boat?
- TD: Yes.
- KM: Did you go camp
- TD: We'd come back in the afternoon. But he and Pete were great fishermen. And as a matter of fact, Pete, he had the bed near my grandfather, and he used to take his teeth out and put them on the floor under his bed. And I had a little toy fox terrier who stole his teeth [chuckling] one day. And someone saw my little dog Lily, running away with uncle Pete's teeth, and she buried them somewhere [laughing]. And we never could find them.
- KM: Oh no!
- TD: He had to go back to Hilo with no teeth.
- KM: 'Auwē! [chuckling] Hey, that's good, we can keep the eyes open. The archaeologists find

- those teeth, we'll know who's they were [chuckling].
- RD: Yeah.
- TD: [laughing] Yeah,. Pete Beamer.
- KM: Oh, that's wonderful.
- TD: And you know, couples had to find their own time to be together. They had to sleep apart, just like in the olden days. Ladies were upstairs and men were down stairs. The boys and other men would sleep on the veranda of the Ka'elemakule house, or find someplace along the beach to camp.
- KM: As I visualize this. I'm trying to get an idea of the house. The house is hear, there's a door on the side. This is the door on the beach.
- TD: Yes.
- KM: The room is divided in half.
- TD: Yes.
- KM: And this is more like an open veranda, the windows open out.
- TD: Yes.
- KM: Were the men sleeping throughout this section?
- TD: No, they were sleeping right here. [Figure 20] Here was my grandfather's bed. There was Pete's bed. And there was an old canoe they had upside down like that. It was a *koa* canoe, beautiful. And then all the beds were like this.
- KM: I see.
- TD: And then, here's the kitchen. Here's the tank, right behind the door. And this is where our dining room table was. A big huge dining room table.
- KM: Oh, so the table was in this room here. Now, I see.
- TD: Yeah. And their little bench that they used to prepare their fishhooks at, was right there. And then, the bank of...their sinks are here. There are still some sinks. And right here, at this door, a double door with two 'ōhi'a logs, was an old ships bell. My grandfather used to ring the bell, ding, ding, ding, so he could call us home from the beach. And then the generator was right out here. And this was the old bathhouse right here. There's a sea grape tree that grows right under here. The room was about six feet square, and I think it's still there, with an old flat head shower [Figure 18].
- KM: So the bathhouse was fed off of the tank; this tank here?
- TD: Well, it was brackish water that came through from the pond with the windmill [in Keawehala], so we didn't need to careful of that water. But our drinking water, we had to be very careful of. Here, on the lava, is where we used to throw our bathing suits out to dry. And back here, is where the outhouse was [Figure 18].
- [pointing to locations] This is Anna's house here [the old Ka'elemakule house]. The canoe shed was right here. The rock wall, the walkway, and the steps down were here. This utility shed was not there when I was there. That's fairly new. But right back here, was the little holding pen. That was for *kēkake* [the donkey].
- KM: Uh-hmm. And *kēkake*'s name was?
- TD: Puanani was one. My grandmother's *kēkake* was Puanani. And here's where the *imu* was.
- KM: Great. So we're just marking these locations, and I'll try to reproduce this in a legible

format and ask you to review it.

TD: Right.

KM: So the women were all upstairs?

TD: Yeah.

KM: You'd mentioned that there was kind of a pecking order in that also. So if this is upstairs...

TD: This is the stairway going up. And later, my father made bedrooms, but before that, there was only one big room [Figure 19]. So there was a big camphor chest here. This was aunty Thelma's, and this was my grandmother's bed. She was the only one who had a little four poster bed. And then the next one was mine [chuckles]. And then on and on. So the windows were here, with no screens, just calico curtains. We'd jiggle them loose, and the wind would come down Hualālai and fill the room. And we could see the second beach from our bedroom upstairs. Beautiful!

KM: Oh, wonderful, thank you.

TD: Okay.

KM: Is there something that I should have asked.

TD: [shaking her head no]

KM: So you think you've covered everything? What are your thoughts about how the park...do you have recommendations about how the park should address protection of sites or tell the story of the area?

TD: Well, I know that for many years, people have been...it was kind of isolated. People would come down and fish. And I think it's really wonderful to see people enjoy that spot now. Because it is a place of enjoyment, and it is so spiritual and so beautiful [said with emphasis]. And I think that the more people that know about it, of course, the better it is.

KM: Have you heard that a part of the park's plan...and they've hired someone that will become a resident steward, a park caretaker?

TD: Oh really.

KM: Someone that will be there...

TD: We'll go [laughing gesturing to her husband and herself]

KM: [laughing] Oh, the bugga was hired already. But I bet you could go easy. But, he's a wonderful young man, part Hawaiian-Chinese, Casey Cho, not the Cho from Kona that was also involved with Ka'elemakule them. They are thinking of actually fixing the upstairs of the house, so that he and his wife can live there.

TD: Oh, that's wonderful. Lucky man, lucky man.

KM: They'll stay there, and the idea is to help ensure protection and informed, knowledgeable use of the park.

TD: Sure.

KM: And he'll be doing something like backcountry ranger work, to walk the trails between Mahai'ula to Kūki'o, to care for the land.

RD: That's neat.

TD: Yeah, that's wonderful.

KM: Good, so you think that's a good plan.

TD: Oh yes, absolutely.

KM: Aunty Lei Collins and them were very encouraged to hear that as well.

TD: Yeah.

KM: Because they were very concerned that the cave...and see, when I send you the study, and material I've translated from the old gentlemen, the cave has a name, Kolomikimiki. There is a rich history to that cave.

TD: Wow!

KM: And so they feel things like this cave, it's important that some of the history be known.

TD: Sure.

KM: Yet, it is still a sacred place for the family as a burial site.

TD: Sure.

KM: So there are certain things, like this stone Pōhakuolama, it's been requested that people not be allowed to more their boats...

TD: No!

KM: Or anchor to it. It is a sacred place.

TD: Sure.

KM: So they are looking at this. And they are very enthused that Casey, or someone, that there is this park steward who will be there.

TD: Sure, sure.

KM: They're going to run educational programs.

TD: That's great.

KM: We have the words to the dedication song for the house. Kalāhikiola that the old man Ka'elemakule built.

TD: Wow.

KM: But, we don't have the melody.

TD: Ohh!

KM: But, you bring up this interesting thing about this song that Helen Desha Beamer wrote for Mahai'ula. That's wonderful. Those things touch the heart eh.

TD: Yeah, right. And you know, there's a *hula* to it too, that Maiki Aiu created herself.

KM: Good, we can talk, see if Colleen or somebody might know it.

TD: Yeah, Colleen must know it.

RD: You know it.

TD: Yeah.

KM: Did you dance with Aunty Maiki?

TD: Yes, I did.

KM: That's why I know your face.

TD: Oh, did you?

KM: Yes, I graduated in the 1975 *'Ilima* class, *ho 'opa'a kumu hula*.

TD: Oh wow. I was long gone by then.
KM: Yeah, but I think I've seen you in *hālau* materials.
TD: Yes.
KM: Thank you both, it's a pleasure to meet you.
RD: It's good to meet you.
TD: Yes. Where can I send some photos... [end of interview]

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*Hannah Kihalani Springer
Oral History Interview with Kepā Maly
February 3, 1998—Office of Hawaiian Affairs
(with introduction notes from and interview of
January 20, 1997, conducted at Kukui'ohiwai)*

Born in 1952, Hannah Kihalani Springer is a native resident of upland Ka'ūpūlehu, residing at her family home, Kukui'ohiwai, on the shoreward facing slope of Pu'u 'Alalauwā. For generations, Hannah's maternal family has resided in the *ahupua'a* of Kūki'o and Kaulana, with ties to many lands and families of the Kekaha region. In recounting her relationship to the lands of Kekaha, Hannah observes "*O wau no he kama o ka 'āina*" (I am a child of this land), indeed, she was born in Ka'ūpūlehu.

In the years that she was raised at Ka'ūpūlehu, she was reminded each day, of this relationship, noting that her deep love of this land was instilled in her from her mother. She recalls that from an early age, looking from the heights of Kukui'ohiwai, down the lava plains to the shore and out to the sea, she was filled awe and respect for the land and who she is, as a result of her heritage.

Hannah recalled that when she was around six or seven years old, she took her first overland journey to the shore of Makalawena. Leaving the road below Hu'ehu'e Ranch, riding in an old army jeep, driven by Kapehe, Hannah remembers how awe struck she was in drawing close to the lava flows and crater of Puhi-a-Pele.



Hannah Kihalani Springer

In those early years, she continually heard stories from her mother and area *kūpuna* about the relationship shared between the land and its people, and Pele. There were other stories that were told and retold time and time again as well. Among them were the accounts of Kāne and the waters of Ka'ūpūlehu, the water cave of Mākālei, about the boy and girl at Manini'ōwali, and the thwarted attempts of the *menehune* to remove the top of 'Akāhipu'u, and relocate it to the shoreward *kula*, and place it atop Pu'u Kuili in Awake'e. To Hannah, these stories embody the power of the creative forces of nature, and the place of these natural forces in the lives of the people of the land.

Hannah also recalls that throughout her younger years, she was very much aware of the relationship shared between people of the uplands and the coastal areas. There was always travel between the coast and uplands, and exchange of resources. Hannah recalls hearing that when her grandmother died, a cousin, Annie Punihaole-Una walked from the shore of Makalawena, to the family home, and that her *kanikau* (chanted dirge) could be heard, carried upon the winds before her. There is a tradition among the families, that the winds of this land carried the news of events between the people of the upland and shoreward regions.

Since her early years on the land and experiences with the people of the land, till the present, Hannah has continued to make periodic journeys to the lands of Mahai'ula-Ka'ūpūlehu, and greater Kekaha. Indeed today, some of those journeys are pilgrimages, in which Hannah and her family go to pay homage to traditional places, observe the passing of the seasons, practice traditional resource stewardship, and at times, to lament the passing of things that once were.

On March 3, 1998, Ms. Springer gave her release of the interview transcript for incorporation in this study (*Appendix A*).

- KM: *Aloha, mahalo nui i kou lokomaika'i.* [Greeting, thank you so much for your kindness (in seeing me).]
- HS: *E, me ka hau'oli.* [Oh, it's a pleasure.]
- KM: I'm here with Kihalani Springer, we're going to talk story a little bit about Kekaha Kai...
- HS: *'Ae* [yes].
- KM: The State Park, and some of your *mana'o* [thoughts] and family recollections. We have a copy of Register Map 1447 in front of us that we'll use as a reference...
- HS: Uh-hmm.
- KM: And if there are some particular areas of concern, or interest that you want to make sure that some history, some *mana'o* is recorded, from your experience... Anyway, *mahalo nui*.
- HS: Hmm. It's always a pleasure to look out at this landscape. As I did before I left home this morning, when I left Kukui'ohiwai at about 6:30 this morning. And from my earliest memories, the landscape of Kekaha, is a thing that has formed my life. Whether I was at home there, or not.
- KM: Hmm.
- HS: As far as the *kahakai* [coastal zone-beaches], I first visited Kūki'o, Manini'ōwali when I was about six years of age, by boat, with our cousin, Budger Ruddle, from Paniau.
- KM: *'Ae.*
- HS: He and my mom, and I, that would have been in 1958, took his boat down the coastline and visited their favorite... [pauses] The *kole nuku heu* [a variety of the surgeonfish] seems to have been a family favorite. And we visited those grounds. About that time, we visited also, Annie Una, who was still alive.
- KM: *'Ae.*
- HS: So we would visit her with Kapehe, who was sheriff, I believe, in the years before I came to know home. But at that time, we would leave from the uplands at Hu'ehu'e, quite close to the ranch headquarters, rather than through the aluminum gate that people use now.
- KM: Uh-hmm.
- HS: There was an access way just Kohala side of the ranch headquarters. And we would come through that and pass Puhi-a-Pele. And the fountain grass was less prominent on the landscape then. And I remember, as a child, cowering in the back of Kapehe's jeep, waiting for the pterodactyls to come flying out of the *pu'u* [hill], as I was sure that they should [smiling]. But the fountain grass was not thick upon the land yet. This is again, around 1958. It's consistent with my parents telling a tale of the year that they were married, in 1950, a boat ran aground at Kiholo. And the person, under the moon and star

- light, was able to make his way from Kiholo beach, near to where that Bakkens now have their residence.
- KM: Yes, uh-hmm.
- HS: He ran aground on that papa [flats] out in front, but he was able to make it up to our house before dawn. My point being that the fountain grass was not yet so thick that it obscured the *mauka-makai* trail from Kiholo up to Hu'ehu'e.
- KM: 'Ae.
- HS: And in 19 [pauses thinking], in the early '80s, we found, for the first time, the *mauka-makai* trail from Hu'ehu'e to Kiholo. It took us several passes before we were able to cover the entire distance. But now, following that time, we have done it regularly. Also the *mauka-makai* trails from Hu'ehu'e down to Kūki'o and the various spurs that lead to Ka'ūpūlehu and to the Kūki'o 2nd, Manini'ōwali lands; where the trail begins to split at Po'opo'omino, and then splits again at the Kūki'o 1st-Kūki'o 2nd boundary.
- KM: Uh-hmm.
- HS: But the hills are landmarks, both for stories and when hunting or also fishing, to triangulate upon. Although I am not an off-shore fisherman, I hear these tales...
- KM: 'Ae.
- HS: From many who do. Most of our activity has been concentrated at the back shores of Uluweuweu and Kikaua, in particular. That's where we had both of our first yea baby parties for our children. They were at Kikaua. And unfortunately, my mother passed away before I was able to explore this fully with her. But I wonder, and I see the line here [pointing to the location on Register Map 1447] on the map, that draws the boundary behind the *wai 'ōpae* [shrimp pond]...
- KM: 'Ae.
- HS: ...At the back shore of Uluweuweu. And according to another family member, that land, she did not believe, that that property was ours. And when I say ours, mother's family owned Hu'ehu'e Ranch up until 1968; for 100 plus years. So my mom's younger sister had always thought that that was outside of our holding. At Kikaua, our cousin Budger's mother, Annabelle, had tried to purchase that from the Territory, and when our family heard of that, because we were the immediately adjacent land owner, my grandmother made an inquiry about the purchase. And the Territory would not sell Kikaua at that time.
- KM: Yes.
- HS: I mention that because I see the line on the map here, being behind of the *wai 'ōpae*.
- KM: 'Ae.
- HS: And that being an interesting line for me. So that might be something that would be worthwhile to determine, if that is inside, or outside of the Kūki'o 1st boundary, which of course outside the purview of the Park. But I think, when we look at the *kaha* lands, and movement across it, that the park is part of a thoroughfare to points beyond.
- KM: Yes.
- HS: Manini'ōwali is a place that is particularly dear to me; as we have always called the bay.
- KM: Uh-hmm.
- HS: Known popularly as Kua. But in our family, we would tell the story of the lovers, Kūki'o and Manini'ōwali. So we'd always point to that thron, that school of *manini* [a reef surgeonfish].

KM: Uh-hmm, yea.

HS: That still congregates there at the rock. When I was a youngster, our family would drive to Kuili and hike in to Manini'ōwali.

KM: Hmm. You can see 1936 additions to this 1887 map, the original alignment of the road coming down to Kuili eh.

HS: E! Yes. I'm thinking though, that that road that we would come down with Kapehe...it's curious that it stops here [on Register Map 1447] at the unsurveyed Kūki'o-Makalawena boundary, I guess.

KM: Yeah.

HS: But we would come, and we would park at the base, at Kaho'iawa, I suppose. And then walk into Manini'ōwali.

KM: Where was... Now mama was a Stillman?

HS: Yes.

KM: And mama's family...?

HS: Mother is the daughter of Aileen Kihalaninui Maguire Stillman, who married Arthur Kahiwahiwa Stillman. Aileen was the daughter of Charles Luhaimalama Maguire and Mary Kihalaninui Parker. And Charles was the son of John Avery Maguire and Luka Hopula'au. And then it is Luka's family...it is through Luka that the nucleus of Hu'ehu'e Ranch came into the Maguire line.

KM: 'Ae. I see Hopula'au's 'āina [land] mentioned up here as well [pointing to the location on Register Map 1447], mauka on the side of 'Akāhipu'u.

HS: Also down in Kaulana.

KM: Yes. There should be [looking at Register Map 1447]...

HS: Here.

KM: Ah yes, Grant 2112, Hopula'au.

HS: Yes, and the Pupule parcel.

KM: 'Ae, Pupule, ma 'ane 'i [Yes Pupule, here], Grant 2121.

HS: Came into Hu'ehu'e through Luka. And this family, is *pili koko* [blood relatives] with the Ako family, Kinoulu mā [folks]. And also to many other families of the *kaha* lands.

KM: 'Ae.

HS: Back to those ancestors, as recorded Marion Kelly [1971], Ha'ilau and Kinolau. And so, it always please me when I hear of my cousins doing exemplary weaving, or in the case of Mahealani Pai, pushing the envelopes of what is conventional tenure on the land. And I see this commonality of *aloha* for the place.

KM: 'Ae. Now, as a child, did you folks keep a house on the shore?

HS: *A'ole* [no]. That home, by the time I came to Kūki'o, the 1946 tidal wave, had already taken away, from Kikaua, the compound that we see in the work that I did for Paul Rosendahl on Kūki'o [1985]. And I included some photographs of the period.

KM: Yes.

HS: That was already gone by the time that I began to visit Kūki'o.

KM: Okay.

- HS: All that remained was the family cook-house, which was on the Kohala side, arm, of Kikaua Point, towards the back shore of Uluweuweu, what they call the canoe landing.
- KM: 'Ae. [pointing to the location on the map] So roughly in this vicinity here?
- HS: 'Ae, that's correct.
- KM: Okay.
- HS: And there was the older home there, that you see in some of those pictures, and mother said that "Our family never used that, that that was Una's family."
- KM: And that would have been further...?
- HS: Kailua side of...
- KM: [pointing to location on map]
- HS: ...Yes, right about there.
- KM: Okay, so I'm just marking it [marking approximate location on Kikaua Point].
- HS: Uh-hmm.
- KM: Did you hear them talk about the *heiau* out here?
- HS: No. Though one day I was cruising with Robert Keākealani, and we had a little bit of time, so we stopped into Kūki'o. I can't remember...I was giving him a ride somewhere. We went down to Kūki'o and he spoke about the *kū'ula* [fishermen's god] of that place, as I have heard Keala Haleamau-Lindsey speak of the *kū'ula* of that place. But that's the only reference that we have.
- During my mother's childhood, when the Ruddle cousins...we're all cousins through the Parker family, from Waimea side.
- KM: Uh-hmm.
- HS: But they would come from Hilo and Paniau. And the Woods cousin would come from Pu'uuhue, and spend time at Kūki'o. And Mr. Finleyson had one of the few sampans that were working out of Kailua, and he would bring provisions as well as those brought over land from the ranch. But there were a number of odd occurrences there. Most of which pertained to what they would call the "*akua lele*" [like fire balls, interpreted as traveling forms of spirits], that would reveal themselves off of the Ka'ūpūlehu side point. I know there is some question, Kumukehu, Kumukea. But as you may know, there is a *kipuka*...
- KM: 'Ae.
- HS: ...there. Of red *pāhoehoe* surrounded by the taller 'a'ā flow. And perhaps it was from this place, that these *akua lele* would generate. And there tales of the family going across with the 'ōpelu boat, which was made by the same carver that made the 'Ā, the canoe of Kūhiō that is at Bishop Museum. That individual also made this boat for our family [Hanalē Wiki, or Henry Weeks of Kāināliu]. I don't know it's name, but it was, as mother would say, "the mate" to the 'Ā. While going across Uluweuweu, in "mill water" conditions, and the *akua lele* would reveal itself, *huli 'ia* [overturn] the canoe.
- KM: Ohh!
- HS: And similarly, going behind on the trail... And you know, we can be logical about, there were some 'alā [dense lava] stones there, and maybe the horses would slip...
- KM: 'Ae.
- HS: ...on the 'alā stone. But, there was always something that would interrupt their investigation of the *akua lele*.

KM: Hmm.

HS: When I was in about 7th grade, we began camping at the back shores of Uluweuweu. And you know, there is that little bay that they call the "canoe landing," and then what we call the "long beach," that goes down to Ka'ūpūlehu.

KM: Uh-hmm.

HS: Behind of that point that separates the two, mother had a...A profound impression was made upon her one night while we were camping, of... She didn't say *akua lele*, but that something manifested itself to her.

KM: Hmm.

HS: Those were the only things that I know about, at that area. We would walk, and again have strong impressions from that area. And I'm not sure, maybe you can help me with the pronunciation of this place? [pointing to a location on the map]

KM: What you are pointing to...

HS: Kakapa.

KM: Yes, [pronounced with emphasis on the first vowel] Kākapa. And what I understand is... J.S. Emerson, in his field notebooks that I told you I was able to go through.

HS: Yes.

KM: He records a brief story about that.

HS: Ahh!

KM: And so I would assume that it would have emphasis, rather than just "Kakapa," it may be "Kākapa." As of *kapa* being bound on or beaten. Kā to apply it, beat, or place it on.

HS: Hmm.

KM: And right offhand, I can't tell you exactly what Emerson wrote, but it has to do with... Emerson's story, from a native informant at the time [Paapu had a house on Uluweuweu beach], in 1882, when he was with Perryman doing his work out here. There was an account told them about a man [Kikaua] and a woman [Kahawaliwali], and a Pele account, and a failure to share *kapa* [see page 34, this study].

HS: Ahh!

KM: It's recorded in the study, I don't recall exactly, so I'm "fishing" right now. But Kākapa, is that way that I think, based on the way I would translate it, that it would be pronounced.

HS: Uh-hmm. Well, there's quite a burial area there.

KM: 'Ae.

HS: And in our family's... Marion Kelly collected that notion that Ha'ilau and Kinolau *mā*, are laid to rest at Kūki'o. Now, from our family's traditions of Kūki'o 1, my mother associated the burials there with Una. And after Una passed away, that Annie Punihaole-Una, would continue to go and *kahu 'ia* [steward] those burials there.

KM: 'Ae.

HS: I know that there is an extensive one at Kākapa. And further more, behind of that, that little hill there, which is a dear and precious place to us [pauses]...Anyway, a strong sense of place and spirit there.

KM: Uh-hmm.

- HS: That little hill is something that I feel very protective of. Have you collected any name for it?
- KM: I may have, and I'll go back and look through the materials. I see it's not recorded on this map here.
- HS: No. I spoke to Robert Keākeālani, you know, he just sort of laughed and said, "Oh, Pu'uiki" [chuckles].
- KM: [meaning "Little hill" – chuckles] And it very well could have been eh?
- HS: [chuckling] Which certainly fits the hill.
- KM: Yes.
- HS: That was a point for me, when North Kona Development Company was looking...was pursuing their boundary amendments...
- KM: Where would you place that little *pu'u*, roughly?
- HS: [looking at Reg. Map 1447; points to the general location]
- KM: Roughly. Okay, I'm just marking it. [phone rings – recorder off]
- [Upon reviewing J.S. Emerson's Field Note Book 253 (1882), two *pu'u* were found to have been identified (see *Figure 11* in this study) in the area described. Emerson's reference point Number 1 is Kaho'owahapu'u, and Number 2 is Pu'u Pāpapa. The latter may be translated as "Low or flat hill," and based on it's location, is the *pu'u* discussed here.]
- HS: ...Where were we?
- KM: We were talking about this small *pu'u*...
- HS: Yes.
- KM: ...that is a place of importance to you.
- HS: Yes, yes.
- KM: And maybe, to help us with this, and I know it's very hard to do. And as you have aptly said in your own oral historical work, "We only gather glimpses in this process..."
- HS: Uh-hmm.
- KM: These are just a look at some of the things that stand out to you.
- HS: Uh-hmm.
- KM: Just as you're doing, if we could talk about some of the features that you feel are important.
- HS: Yes.
- KM: As interpretive resources, as preservation areas...
- HS: Yes.
- KM: So we'll continue along the coast.
- HS: Perfect.
- KM: *Mahalo.*

HS: 'Ae. Maybe before, as we're leaving here. I testified, when the Army Corps of Engineers was holding it's hearings on the dredging in front of the Four Seasons at Ka'ūpūlehu. And they said that there was "nothing unique about the coast line there." One of the things that I pointed out was that, if we look to the source. And I believe the source is 'Alauawa [Pu'u 'Alalauwā] in the uplands.

KM: 'Ae.

HS: There is no other place along the shore line that is from 'Alauawa. So that makes it very unique and distinct. So always, when we are at the shore line, if we look to the uplands for that flow of resources, whether it's the lava itself.

KM: Uh-hmm.

HS: Or, we know for example, at the back shore of Uluweuweu, there is that very... It's referred to in Stearns and McDonalds, *Geology and Ground Water Resources of the Island of Hawaii* [1946], as being the most potable of the waters on the Hualālai coast line.

KM: Uh-hmm.

HS: We know that my mother and her family, as did their ancestors, from the *wā māmao* [distant times past], used those waters. If we look always to, "What is the source of this thing?"

KM: 'Ae.

HS: Then that takes us back to the uplands.

KM: That's right. So this inter-relatedness.

HS: 'Ae.

KM: What is *makai*, is tied to *mauka*.

HS: 'Ae. And because, as you know, in Kekaha wai 'ole, the water does not flow across the surface of the land.

KM: Hmm.

HS: But the water in the subterranean caverns and arteries that move it down slope from the uplands.

KM: 'Ae.

HS: So this too causes us to consider, while we are at the sea shore — When those clouds stack up against the mountain. When those trees fetch the water.

KM: 'Ae.

HS: I think of the place name Waiki'i, you know, was it the water that was fetched by the forest that was there? Whether or not that is the true source of the name, it calls this concept to my mind.

KM: Yes.

HS: And so, when we think of how the ancestors were able to survive along the shore line here, it was only because of those clouds that feed the forest, that feed the springs finally.

KM: Yes, yes.

HS: And in-turn, the fisheries.

KM: Uh-hmm.

- HS: So whether it's the lava, whether it's the water, we look to the inland areas for those sources.
- KM: In the Emerson note books, there is a brief account about the naming of your *pu'u*, 'Alalauwā.
- HS: Ahh!
- KM: And it's association with one of the red fish, the young of the *'āweoweo*.
- HS: Ahh!
- KM: I'll get that to you. But, it's a direct association with the fishery...
- HS: Yes.
- KM: ...the naming of that *pu'u*.
- HS: Yes.
- KM: It's so interesting, yeah?
- HS: Yes. Because, when we look, even at Mūhe'enui... And now, we're skipping around a bit. We're going back into the Kūki'o I^a, as we know it today. But, on the side of Mūhe'enui, is the great stone that was named for the sling master.
- KM: 'Ae, Kanakaloa.
- HS: 'Ae. And that these were used in the triangulation for the fisheries off shore.
- KM: Yes.
- HS: And I believe, in another map, a different name given for Mūhe'enui, and I'm wondering if it isn't a fisheries name.
- KM: Hmm.
- HS: I can't remember it now.
- KM: Yes, I know what you're talking about.
- HS: Waha...?
- KM: Yes, Kaho'owaha.
- HS: E!
- KM: I'll fix that in text, I'll get the right name. [In the account of Ma-Miki (translated in this study) Kaho'owahapu'u and Mūhe'enui are *ko'a*-triangulation points for the deep sea *ko'a* of Kaho'owaha. A longer name for the hill Mūhe'enui is "Ka-lā-malo'o-o-Mūhe'enui" (cf. page 47 in this study).]
- HS: Good. You know, we are always... When we are at the shore line, we look to the *uka*, and when we are above, we look below. One fine afternoon that I had, was with some young people that were sailing on *E Ala*, and Nāinoa Thompson was at Kūki'o, they were camping at Uluweuweu. It was such a joy to go behind the beach, and as I was pointing out the places on the mountain, where the *kauila* grow, as compared to the places where the *'ōhi'a* grow, as to the places... I think one of the names that I learned from you, Hikuhia, in the verdure of the *'ūlei*.
- KM: 'Ae [from native accounts written by J.W.H.I. Kihe]
- HS: And certainly, the *'ūlei* surrounds Kukui'ohiwai.
- KM: 'Ae.

HS: And as I was pointing out these vegetation changes to him, and what they indicated about the what is on the land. [smiling] And you know, this is a man who sees far across the sea. And he said that it was "Such a pleasure for him to be with someone who looked at the land, in a way similar to how he sees the ocean."

KM: Yes, you navigate by places, by features on the land, as well.

HS: 'Ae. Well, way-finding, when I sailed with the *E Ala*, and some of the children, I went as the *wahine ha'i mo'olelo* [the woman historian]. And the kids were going, "Don't you get ever stop talking?" [smiling] And I said, "You all venerate Nāinoa, and he's a way finder through space. I'm way finding you through time."

KM: 'Ae.

HS: "...That we can look at the land and see that these are the changes that have occurred to it. We can look at the land, and we can look at the land marks and tell again the tales of the people who lived there." And then, they were happy to listen.

KM: Yes.

HS: "Hey, cool, it's like what Nāinoa does."

KM: I'm assuming, that you folks followed, in way finding, here even, the established trail along most of the shore line?

HS: Yes. Just for practical reasons, when you are parking your car at Kuili, you may want to wander off the trail [chuckles], but it really makes the most sense to stay on it.

KM: Uh-hmm.

HS: Now we do have the accounts of some of the younger Keana'āinas—and I think I picked this up in the work that I did at Makalawena—the kids would just *ki'ihēle* [wander around, off trail]. Because, if you walked on the trail, you would have to maintain the trail.

KM: Hmm.

HS: And so the kids would cruise. But one of the things that we enjoy to do, and we try to encourage our children, as well, is to walk on the beaten path. And to maintain it as we go.

KM: 'Ae. Now, I see cultural depth in that. Because what you describe, is a practice that you are passing down, this stewardship, *kahu ana*.

HS: E!

KM: It is exactly what the family says about Tūtū Annie Una.

HS: 'Ae.

KM: And her walking the trail and stopping and replacing the stones that *hāne'e* [slid out of place].

HS: E!

KM: This is passed down through the generations.

HS: Yes.

KM: So, "You use it, you have a responsibility to care for it."

HS: And then, when it becomes internalized, it no longer is a responsibility, it just is!

KM: 'Ae, aloha.

HS: It just is. And so we try to encourage that continued practice. And I think, in that we use this term, that it is important to note, that this is a "practice."

KM: Hmm.

HS: This very way of moving across the landscape.

KM: Uh-hmm.

HS: Also, we hunted goats, and so those were ways to easily access where the herds were. Because the herds would often times, take advantage of the existing people trails. Now, when we were working to preserve the *mauka-makai* access through Kūki'o 1... And you know, that's demarked well by the orange fencing now?

KM: Yes, that's correct.

HS: The people at the ranch said, "Oh Hannah, this is only here because your family and the horses and donkeys bruised the trail so well. Really, it was a ranch trail." And I said [smiling] "I'm a legend in my own mind too... [chuckles] ...but I think that this was from the distant past." [laughing] "I don't think it's us."

KM: Yes.

HS: That we were utilizing, certainly, those older paths.

KM: 'Ae. We know the tradition of *ahupua'a* having their *ala pi'i uka* [trails that ascended to the uplands].

HS: 'Ae.

KM: It was required because those who lived *makai*, had *'ohana*, or made use of that which was *mauka* in their *ahupua'a*.

HS: 'Ae. And I think that the work that you are doing with the Ka-Miki tale, illustrates well, the lateral as well as the *mauka-makai* movement through the *kaha* lands. As we come to Kūki'o 2nd and Manini'ōwali, and we go back to the hill there. When North Kona Development was moving forward—more aggressively than they are presently—on their development plans. They had wanted to level the hill for building material. And I made clear to them, that if they did that, that I would certainly enter into what ever contested case, or legal recourse that I would have. So they said, "Well, we'll give you the hill and we'll call it 'Springer Hill.'" And I said, "Well, I like the name 'Ka-pu'u-kapu-'o-Kihalani' [laughing] far better..."

KM: [laughing]

HS: Which is why I was asking you, "Do you have a name for it?"

KM: Yes, there may be something, as I'm thinking about it. [Pu'u Pāpapa] Perryman did some incredible drawings and each drawing is keyed with number. And then, if you're lucky...I've spent the time doing it. It's often not in the same book, but I can find the index to what those numbers mean, what they name.

HS: 'Ae.

KM: So I'll go back and look there.

HS: And I did...Before we get to the nine acres [Lots A,B,C, & D – Maniniowali-Kukio Beach Lots], I ran that past Pua Kanahale. [smiling] And I said Pua, "Am I just too full of myself?" And she goes, "Well, you're behaving as a protector, and we just know that that is the Kiha line of Maui, we won't confuse it with you, Kihalani." [laughing]

KM: Good.

- HS: And there are a number of others. There is the "Pali kapu o Kihalani" in the uplands [chuckling], and the... After Pua called it to my attention, to the people of Maui, to get from Pu'u Iki or Ka Pu'u Kapu [referring to Pu'u Pāpapa] down to the shore line, that trail is paved with accretionary balls. Which is important to note because that is a building material that is what we find here. An archaeologist doing a study there, interviewed me and he misinterpreted what I said...
- KM: Okay, I'll take care not to.
- HS: ...to be "alā stones." And in public testimony he said "Well, there are no 'alā stones, contrary to what the informant told me."
- KM: Yes.
- HS: "Hoo brudda, you should have asked me what an accretionary ball is." Because they couldn't find the trail, and because the accretionary balls are lava, 'a'ā encrusted, they are very difficult to see until you are right on the trail. But because that is unique to this area, and any other place where you would have that building material, I suppose.
- KM: Uh-hmm.
- HS: In particular, these trails are representative of, and unique to the land.
- KM: 'Ae. A unique manner of construction, which qualifies within the federal regulations [National Register Bulletin 38:11; *Criterion C*].
- HS: 'Ae. I'm glad to hear this because, they are modest, they are short from the Pu'u Iki down to the sea shore.
- KM: That would give an indication that they are of some significance as well then. If you have the effort put into the development of a trail...
- HS: 'Ae.
- KM: ...from *makai* to this *pu'u*. Was it and *'ilina* [burial site]? Was it a place of prayer? Was it a place of *ko'a*, *kā'ula* marking?
- HS: Yes. And I'm thinking too, we can see, even today, certainly when the *nai'a* [porpoises] and the *koholā* are moving... But I think it would be a good place to watch also, for the *'ōpelu* of this place.
- KM: Yes, for directing...even then *kilo* [a place from where a fish spotter could direct the canoe fleets]. For directing them to the *ku'una* or school was.
- HS: Yes, and we know that there were times that the old folks would put their voices, their call on the wind. And you knew that there were certain times of the day that you could use this medium to cause your voice to travel far.
- KM: 'Ae. So the wind would carry the voice across *makai*, or to the uplands?
- HS: 'Ae. And we hear this from aunty Elizabeth Lee, speaking of how...and maybe it was a whistle, that they could communicate from where they stay to the men that were working in the lands below of there.
- KM: 'Ae.
- HS: Also, when we think of Maui, we know that there is that heiau at the back shores of Kākapa, which has been typified as being of the "Maui type."
- KM: Ahh [shaking head]!
- HS: Yeah. *He aha ka pilikia?* [What's the problem?]

KM: [pauses] Oh, I've seen some... It's tough to standardize, to apply...

HS: I understand.

KM: Who was it?

HS: Sinoto.

KM: Yeah, that's right, I've seen that in writing.

HS: And there is... Ross Cordy when we were in the uplands of Kaū, he noted similarly, there is a structure there that has the same formal characteristics, and he likened it to this place by the shore line. Whatever the source; and of course the part of me that does have Maui lineage, is intrigued by the notion [chuckles], that perhaps there was a connection.

KM: [chuckling] Yes, it would be interesting to [explore]... The accounts that you see, of Maui interactions at Kekaha, are...

HS: Abusive.

KM: Yeah, they are abusive. And so they are not ones that would lend themselves to the time to do a formalized construction. And what we have, as John Papa I'i himself wrote, in the 1850s-60s, when he was writing, "*Nā hunahuna o nā Mo'olelo Hawai'i*," they were fragments, *hunahuna*.

HS: Uh-hmm.

KM: Even at his time. So you know...

HS: Uh-hmm. But, it is a strong structure that carries tremendous import to *malihini* [visitors] who pass by there.

KM: 'Ae.

HS: In comparison with the other structures on the coast line.

KM: This feature is on the point area?

HS: At the back shore [pointing to approximate location on Register Map 1447]

KM: Oh, all the way back here.

HS: Well, maybe it is about here.

KM: Okay.

HS: But, you know, the house site that is in the *kiawe*, is remarkable in itself. When you leave Kikaua. And I think that might be right there by that point, just below the *pā 'ilina* [burial site]. There is a lovely house site.

KM: Yes. I'm thinking that Emerson recorded some of these. What he was doing, often he was recorded certain things because they used them as visual...

HS: Uh-hmm.

KM: ...as triangulation points.

HS: Uh-hmm.

KM: And then when Perryman was doing the graphics, they were numbering it so they could keep track of what they had taken their signal or measurement from.

[Recorded as Site Number 27 in Register Book No. 252; Emerson collected information that the *heiau* was built by Kamehameha. Though at the time, 1882, it had been destroyed

by wave action (see page 34 in this study). It is possible that native families of the land periodically did restoration work on the *heiau*.]

- HS: Yes.
- KM: [marking the location on the map] And the *'ilina*, a little inland?
- HS: Yes. But because it's on the *'a'ā* front, some of the mounds are visible for a considerable distance. In recent years, people have put white corral on them.
- KM: Hmm. These were the *'ilina* that were possibly associated with the Kinolau *mā*?
- HS: Yeah. And this is...I don't have any...this is not with authority or verification.
- KM: Yes, it was something that Marion Kelly had collected through some discussion?
- HS: Yes.
- KM: And I don't know if it was Tūtū Lowell Punihaoale...
- HS: Uh-hmm.
- KM: She speaks so fondly of him, you know [pers comm. Feb. 6, 1998].
- HS: Yes.
- KM: Good.
- HS: It was 1979, it was the night of *Hilo*, in our month of January, a friend and I walked; we were camping at Kūki'o. And we were going to go to Manini'ōwali to go body surfing, and we hiked up to the little hill, following those trails of which we spoke [accretionary paved trails].
- KM: 'Ae.
- HS: And then we came across country, behind Manini'ōwali beach and found some petroglyphs there, that we haven't been able to find since. And we tried to go back on nights of *Hilo*, to replicate the angle of the sun and all of those things. It was a remarkable morning. Visual conditions were just right. And it was remarkable because there were great shafts of color, columns of color, like northern lights, but in Hawai'i. That were moving across the ocean, and my mother mentioned them from Kukui'ohiwai, she counted seven of these shafts on the same morning. But we made that observation, then we came down to that acreage, that little in-holding there.
- KM: [having asked about the lot prior to the recorded interview]
- HS: Now all I know about that is when I was in High School, and this was in the 1960s, my dentist, Dr. Burso was a partner that held that property there. And of course, that's most recently been associated with the lawyer in Kona, Mark VanPernis.
- KM: Yes.
- HS: And there has been, in my opinion, a tremendous degradation of the *wai 'ōpae* [shrimp pond] and associated trail features.
- KM: Yes, you see them marked on the plot map. Interestingly, I went and pulled out the original Grant [No. 10774] and looked up Victor Harrell. And I guess, there is no association, family wise, or anything?
- HS: [shaking head no]
- KM: If you don't know, what I found is how he ended up getting this parcel. He lost a section below Hikiāu. So it was a trade. Because they [the Territory] were taking the Hikiāu parcel...

- HS: Interesting]
- KM: And at the same time, Magoon, who had already acquired the Mahai'ula-Kaulana parcel.
- HS: Uh-hmm.
- KM: Had applied for this as well.
- HS: Ohh!
- KM: But he was pushed out of it. And this is 1939, that this was occurring.
- HS: Ohh! No, I'm sorry.
- KM: Was there any residence any time, down here that you recall? Historic?
- HS: No, not that I know of. Aunty Molly Dunaway, who is a Kunepa. Spoke of being here on O'ahu in the 1940s and meeting the grandchild of the last people who had lived at Manini'owali. So this would take it, easily to the mid 1800s.
- KM: Yes, uh-hmm.
- HS: That's the only reference that I've heard to permanent habitation. Of course, when I was young, and you'd walk the trails, you'd find the stashes, the kerosene, the rice, that the fisher people would leave there. Michael and I met there, on the full moon of January [smiling], in 1976.
- KM: Wow!
- HS: So it is a place that is dear to us for that reason as well.
- KM: If I may, one interesting point, relative to this name.
- HS: Uh-hmm.
- KM: Emerson did record it, in several different locations in his field books of the 1880s...
- HS: Uh-hmm.
- KM: As early as 1882. With the name Manini'owali; and it would be interesting to...I guess it's a point of question, as to, "Is it Kua Bay, is it Manini'owali?"
- HS: Uh-hmm.
- KM: But the standard usage that you recall hearing, ahs always been "Manini'owali Bay?"
- HS: That's correct. And I think that certainly speaks to different traditions that different families hold. We were talking earlier about "Ka-imu-pulehu-a-ke-akua" and "Ka-'ulu-pulehu." And Billy Paris turned me on to the notion, that it's not "pulehu," like the style of cooking. But when you are setting an imu and ashes are expelled from it, that that's what the reference is. Now, our family has always championed, if you will that story. That Ka-'ulu-pulehu takes place up at the breadfruit grove of Kāmeha'ikana. Which is in the uplands of Hu'ehu'e.
- KM: 'Ae.
- HS: But, I muse too, at the strength of the Pele tradition, and in these times, as we see *nā tita Kanaka'ole* [the Kanaka'ole sisters] taking "*Holo Mai Pele*" [a presentation of the travels of Pele] this way and that across oceans and continents.
- KM: 'Ae.
- HS: There is a liveliness about the Pele tales. But I think that, at least as presented by Maguire, she speaks of this story as being from an older time. Before the coming of Pele to the landscape.

- KM: 'Ae.
- HS: And I believe that that's a direct translation from Kihe.
- KM: Well, what we see, is cultural adaptation to circumstances.
- HS: Yeah.
- KM: Kihe's whole wonderful account of why this area further south, Mahai'ula-Kaulana was preserved. The same thing, this *huaka'i Pele* [journey of Pele]...
- HS: Yes.
- KM: And those who are living *pono* [justly—right with all around them], and with *aloha*, are preserved. Those who aren't, pay the price.
- HS: Yes. And her travels were useful to us in our contested case before the Land Use Commission, when... [thinking] In "*Holo Mai Pele*," as the performance is being refined, now I believe it is the first scene of the last act, that speaks of Hu'ehu'e and Hualālai. And there is reference in that to *kalipe'e*, which they liken to the tall face of the 'a'ā flow, which is like the old face of the haggard woman, that moves like the old woman [creeping] across the landscape.
- KM: Uh-hmm.
- HS: And we certainly see those kinds of large 'a'ā flows coming through this area. So again, we are looking at that marvelous integration of the dominion of man and the dominion of the gods.
- KM: Uh-hmm.
- HS: And all that that implies of how life was lived before. How it is lived now, and how it may be lived in the future. So when we are here in Kūki'o 2nd and Manini'ōwali, you know, it's the little hill behind the beach. And it's Kuili that attracts our attention. When I went into Manini'ōwali with the Burial Council for Hawai'i Island, they were looking at a specific site in Manini'ōwali. And I was pointing out the land marks to them, and I pointed out Kuili. Pearl Kanaka'ole Garman sort of broke into an extemporaneous 'oli [chant] of the Kuili prayer. Those are intriguing moments when that sort of spontaneity is expressed.
- Now, as we know, Kahai, or Kaha'iali'i was given this Grant [No. 2023, at Awake'e]. I had the opportunity to take Trustees Akaka and Kahaiali'i to Makalawena for a field visit back in 1988. And Manu Kahaiali'i, speaking of his mother singing lullabies...she was from Makalawena, and she sang lullabies to him. And this was the first time that he saw the places that his mother had sung to him. Makalawena is always a place that we associated with Annie Una. And when my grandmother passed away, she passed away in the afternoon, as I understand it. And by the next morning, Annie had made her way up the Makalawena-Hu'ehu'e trail and had come to Kukui'ohiwai to give her *kanikau* [dirge] and *uwē* [lamenting chants] to my grandmother. And that is something that I can almost hear, because of my mom and her sisters recounting this to me.
- But, the first time that I walked the Makalawena...I was up at Hu'ehu'e and walked down to Makalawena, it was touching to walk in the treadway that Annie had walked in to come to be with my grandmother.
- Makalawena was a place that we visited after Annie passed away, we didn't go back for many years. And then we would go, maybe once a year.
- KM: Do you recall approximately when aunty Annie Una passed away?
- HS: I think it was about 1960.

- KM: Yes. There are...Obviously, this is Bishop Estate land, but the trail access, shoreward, coastal access is still a part of the State's purview.
- HS: Yes.
- KM: So there are the 'ōpae ponds.
- HS: Yes.
- KM: Are there still remnants of some of the old house sites still yet around, that you remember? Or did the *tsunami*, pretty much...?
- HS: Even Annie's house, you know, has so deteriorated. Further back, there may be... Sometimes, the tidal waves would just move things about. And it seems to me that there may be some... I'm thinking of things, just maybe wood, maybe old rain barrels that might be there.
- KM: Hmm.
- HS: You know, the State did claim the *mauka-makai* trail through here.
- KM: Yes.
- HS: Now, I don't know if they claimed the trail to Hu'ehu'e or, if we look at older maps, there is a trail that goes to the Pu'ukala area.
- KM: 'Ae. [formerly a dryland agricultural resource for native families residing on the shore]
- HS: And the school that was there. So I don't know which *mauka* terminus they are claiming, so that might be something that could be verified through this process.
- KM: Uh-hmm. [At the time of this writing, the State of Hawai'i has confirmed ownership of the Makalawena Trail (*mauka-makai*), and the lateral trails. The State's finding are supported by field records and sketch maps of Emerson and Perryman, cited in this study.]
- HS: When we think of contemporary use, to me it would be a great benefit... This is a very nice trail. It's hard to find now, through Kapo'ikai [the Makalawena 'ōpae pond] wet lands. You have to bushwhack through the *kiawe*. But, if that trail could be made passable in the lowlands, it is quite easy to walk, once you get *mauka*.
- KM: Uh-hmm.
- HS: And there was *pili* [grass] that grows as a trail side plant there. Once you cross the Ka'ahumanu Highway, now, there is a spot where someone planted a mango tree... [end of Side A; begin Side B]
- [and some mulberry that some one planted. So going further *mauka* the trail becomes difficult to follow, going up to] ...Hu'ehu'e, because of cattle movement and just the grasses and lantana, and what not. If I lose the trail, and I be still and look about, chances are that I'd see some mulberry and go over to the mulberry and get back on course.
- KM: Uh-hmm.
- HS: But I think that it would be a lovely recreational opportunity to utilize this *mauka-makai* trail and then perhaps, develop a cross access to one of the jeep trails, or one of the other *ala hele* [native trails].
- KM: Yes.
- HS: And make a loop trail for just our well-being.
- KM: Sure.

- HS: For people that like to go out and stretch their legs. And of course, we as a community of people, have been successful in securing public shore line access in Hawai'i. But particularly, where the State is making claims to *mauka-makai* access, those, I believe, should be normalized into the use of the community, and Kekaha Kai Park may offer us such an opportunity.
- KM: 'Ae.
- HS: One of the things, we've been speaking of, in interpretation, I would love to see, using the sort of signage that we see at Hawai'i Volcanoes National Park [a durable permaloy material, on which both texts and graphics can be presented], where you can do a landscape and point out those hills in the uplands and give breath to their names.
- KM: 'Ae.
- HS: And similarly, throughout the park, to pick up the point and bay names, the names of the currents.
- KM: Yes.
- HS: I know that you have taught me much of that area of our home land, as well. And where there may be two stories, you know, like we speak of "Ka-imu-pūlehu-a-ke-akua" and "Ka-'ulu-pūlehu," to offer them both.
- KM: 'Ae.
- HS: In their complexity and contradiction and complementarity.
- KM: Hmm.
- HS: And that is my preference to offer both, or more.
- KM: Yes. It enriches rather than diminishes, or judges one as being less valuable than the other.
- HS: I think so. Even if we look down the coast line, to Kohanaiki, people call that Pine Trees. Well, the *Casuarina* [ironwood] that gave its name, has been enveloped by the mangrove [smiling].
- KM: Uh-hmm.
- HS: I can't wait until we start calling it "Mangroves." [chuckles]
- KM: [laughing]
- HS: But when we look at the dynamic nature of our communities, there will be these changes. And if we can show that chronology, we show an evolution of the thinking and where we are not all seeing and all knowing, that may be preferable than just saying "This is not so."
- KM: That's right.
- HS: Now, there may be a moment where we can see that something is not so. [looking at Register Map 1447] At the Awake'e-Makalawena boundary, there is this place, Ka-iwi-koholā.
- KM: 'Ae.
- HS: You may know how this name has been degraded on different map incarnations.
- KM: Uh-hmm.
- HS: To something that is nonsensical, finally. And in that case, when we can take it back to an original notation and we here the *mo'olelo* [history] or the *ka'ao* [tale], and we

understand it. Then I think that's a valid correction. But part of the interpretation, might be this discussion of how, when the map was being traced, we lost information.

KM: 'Ae.

HS: I think that that's a valuable interpretive tool. Whether or not we want to highlight it, it is part of the telling of our story.

KM: Yes. It is a part of the history.

HS: [pointing to the location on the map] Right here.

KM: Yes. And fortunately, in this particular example, Kaiwikoholā, Emerson did record an account of how it was named.

HS: E!

KM: So we're fortunate yeah?

HS: Yes.

KM: And to see similarities in place names through out the place. Like Lae-manō and to know of Lae-manō at Pu'u Wa'awa'a...

HS: Yes.

KM: Near the boundary of Ka'ūpūlehu, and another one recorded by Emerson in his notes, as being at Awake'e. As well as other *manō* [shark] names as well.

HS: Yes.

KM: Along the coast line.

HS: And even there as we have always said, "Ka-lae-manō," I was in the field with Richard Lyman one time, and he was saying, "Well, maybe it's 'Ka-lae-mano.'" [chuckles] With reference to the waters there. And one of the things that I liked about Richard Lyman, was his lively imagination and that he was facile enough with the language to discuss, "Well, how about this interpretation, or that." And I think that's what we are talking about here now.

KM: Uh-hmm.

HS: As we move into Mahai'ula, I understand that some members of the younger generation of Magoons have been accessible to you.

KM: Yes.

HS: They would keep their donkeys up at Hu'ehu'e. Uncle Allie and aunty Ruth, would keep them there. Of course, they would go by boat, but they also had donkeys that they would come down with. And so they were kept up at Hu'ehu'e. Mother fondly recalled this as being the first place where she drove a power boat, was on the bay at Mahai'ula.

KM: Ahh!

HS: One of the sweetest things that we can do, is to go surfing outside there at Mahai'ula after an afternoon shower in the spring time, when Hualālai is just resplendent in the golden glow. And the fresh greenery of the mountain. It is something.

KM: Hmm, awe inspiring.

HS: Yes, it causes my chest to swell. When mother passed away, because of the closeness of our families, this is one of the places that we visited in the time immediately following her passing away.

KM: Hmm.

HS: And the Magoon family was generous and invited our family to come and reminisce about those times of your.

KM: We have discussed, as you mentioned, with some of the Magoon and Ka'elemakule descendants, some of the history. Glimpses, vignettes of some of those experiences that endeared the land to them, and vise-versa.

HS: Uh-hmm.

KM: As well as Pōhaku-o-Lama...

HS: Yes.

KM: ...the stone in the water. And gathering recommendations for it's protection, or respect.

HS: Hmm.

KM: We of course, discussed in some detail, the *'ilina*, the burial site.

HS: Uh-hmm.

KM: And by the way, in reference to the donkeys, as you were describing; Tessa is drawing some maps for us to show what she recalls of the late 40s, early 50s of where the donkey pen was. Where their imu was, and where...even the pecking order of the beds [chuckling], upstairs...

HS: [laughing] Yes.

KM: Where grandma slept, and who was on down the line. So it will help to animate, bring some of that to life. And of course the beautiful old Ka'elemakule house, with his narratives and discussions of the families.

HS: Yes.

KM: We've been very fortunate...This endearment, the, continues, as you described, through your mother, through you and on to your own children and family.

HS: Uh-hmm. Yes. When the Magoon family still owned this parcel, Keoki and I were class mates at Punahou, as were our parents. His father, and my mother before us. And his grandfather and my grandmother before that.

KM: Hmm!

HS: And so it is sweet that some of our earliest family photos are enjoying the hospitality at Mahai'ula. And I think that that is a very tender thing that we've gone through with the community, as some of the Ka'elemakule family have come back for the first time, since very small child times to this place. And as we look at the changes in tenure and the different players, we see it as not always and only the *malihini* [strangers-newcomers] who may be cast in the role of villain. You know, we've had much discussion about who the lawyers were...

KM: 'Ae.

HS: And many of these people are of the koko [blood]. So it is quite a dynamic thing here, that this modest place, called "*wai 'ole*" by some, is a microcosm of so much of the antics of humanity anywhere.

KM: Yes. May I ask real quickly, have you heard an interpretation for the name Mahai'ula?

HS: [shaking head, no]

KM: Okay. Of course, the interesting account; did you ever witness the reddening of the water around Pōhakuolama?

HS: When Keoki got married the second time, actually.

KM: Oh yeah?

HS: 'Ae. And at Kaloko, it reddens similarly.

KM: 'Ae, Kahinihini'ula.

HS: I don't know if it's the same organism that causes it to occur, but it looked similar.

KM: Yes.

HS: And I didn't want to go stick my hand inside to see if it would start to burn and itch [chuckles].

KM: [laughing] You know, there is a large *pā*, enclosure, in the *pāhoehoe* here [pointing to the location on Register Map 1447—Site 18], do you have any mana'o about what its function was?

HS: No. On the new Puhiapele lava?

KM: 'Ae.

HS: No, but that is the side that our family comes to...we enjoy this side of the bay now.

KM: Yes. You know the salt works that are on the side there [Site 54]?

HS: Uh-hmm.

KM: Have you heard any discussion about them?

HS: No. But I believe in boundary commission testimonies, I saw reference to salt works at this boundary as well [in the vicinity of Mahai'ula-Makalawena]. But in our family tradition— *kama'āina mākou 'o Ka'ūpūlehu* [we are natives of Ka'ūpūlehu]. So we'd always go to Ka'ūpūlehu, or in that place, Kalaemanō, the discrete little point of land, I never knew. I always knew the delta.

KM: Yes, the vicinity.

HS: As Laemanō. And whether came from visiting the Hind family at Kīholo. Which in the 60s and 70s, that was more frequently, the way that we would come to Kalaemanō. But that's always been where gather salt.

KM: Uh-hmm.

HS: Kekaulike, our son wanted to go and gather salt at Kalaemanō this weekend. And I saw this big surf, so the salt will be wet. But, in a few months, when it dries out, we'll go. Again, that pleasure that our eight year old was asking if it was time to go collect the salt at Kalaemanō. It's good stuff.

KM: Yes.

HS: So that was where we gathered. Here [pointing to Mahai'ula on the map], we would come to party [laughing]! Not to work.

KM: [laughing] 'Ae.

HS: So I think that that takes us through the Kekaha Kai park lands. I think we've touched on not limiting our... Certainly, the focus is the *kahakai* [coastal area], but to be able to shift our focus to the different sources.

KM: 'Ae. The relationships of *mauka* and *makai*.

- HS: 'Ae. And if we look at the *ahupua'a* that we've just been discussing now. From Mahai'ula through the Kūki'os, you know, as we lookup the map, you see how they come to a focus at 'Akāhipu'u.
- KM: 'Ae.
- HS: And so that should certainly be something that the interpretation of history, and what is told about the history and the geography should take our eye and our thoughts to 'Akāhipu'u as well. Manu Kahaiali'i was telling me, as was told him by his mother, that the water cave at 'Akāhipu'u, the different families from the different *ahupua'a* would collect water on a rotation. Manu didn't know if it was according to *ahupua'a* or family. But, the two may have been synonymous. Because once we get up to that high elevation, the distance between any *ahupua'a* is fairly short. You can look at the *ahu* [cairns] in a row there.
- KM: Yes.
- HS: So I think that 'Akāhipu'u is a tremendously important aspect of interpretation. As well as that place called ...we always called it Pili, but on the maps, it's called 'Io. And both thrive there. So, if you talk to cowboys, they call it Pili. And on the map, we see "Io." Puhiapele, of course is the source of the lava delta, just Kailua side of what the park will be.
- I'm rushing now, because...
- KM: Yes, I'm sorry.
- HS: No, *a'ole pilikia*.
- KM: In general, a recommendation for long-term management, protection, access...?
- HS: I'm not one for immediate and unlimited public access, until suitable infrastructure—sanitation facilities, in particular, can be put in place. We can look at Manini'ōwali...actually, it's looking better in recent times. We didn't go for a long time. And as I've described, this is a place most dear to us, but because of the large number of people accessing the area, with just insufficient manners [chuckles], or infrastructure...
- KM: [chuckling] Yeah.
- HS: ... to take care, if no more than manners. So I would like to utilize existing thoroughfares whether they are jeep or the older *alahahele* first. And in such places where it would seem proper to reduce the *hāli'i kiawe* [*kiawe* overstory], to do so prudently. If we are looking at replacing with *milo* or *kou*, or *hau*.
- KM: 'Ae.
- HS: To let the *kiawe* be the buffer for the sun and the elements.
- KM: That's correct. Sure.
- HS: And you know, the best taro that I ever grew, was at La'aloa Beach. I'd sweep the *pāhoehoe* of the *kiawe* leaf litter and it makes a wonderful mulch. So even when we get to that point that we may be judiciously thinning it out, the chips are excellent, but the leaf litter is a fine...we are utilitarian people.
- KM: Yes.
- HS: We know that the old folks brought the *kiawe* there for a reason, it only became a problem when it was no longer tended.
- KM: 'Ae!

- HS: And it has its usefulness. The lacy shade of the *kiawe* is a delightful place while away the afternoon hours.
- One other thing, Kua Bay. I was reading to our kids, in that series that Pukui and Curtis brought together. In one of those books is stories of Hawai'i Island. And there is a story of a shark that brings taro. When the Waipi'o are coming on their canoe, with the taro, and the shark... I can't remember. But somehow, there is a shark that gets the taro to the old folks that live at this bay.
- KM: Okay.
- HS: When I read that story to our children, the first thing that popped [snapping fingers] into my mind was Manini'ōwali. And this is an impression that I had.
- KM: Yes.
- HS: But it would be curious if that was the bay.
- KM: Hmm. Okay. Good. Now, you are active with a group, in collecting, planning, and thinking out the park. So this is a small glimpse at a formal sort of recording of some aspects of history and recollection.
- HS: Yes.
- KM: I'm going to transcribe this, basically verbatim, making a few minor corrections where you or I were thinking about something, that I know we can easily correct.
- HS: Uh-hmm. Okay.
- KM: And as we go through the process, I would like to be able to include what you feel is appropriate with the histories that the *kūpuna* shared...
- HS: Of course.
- KM: It also shows continuity, the time depth, the continuation of...
- HS: Yes.
- KM: Of mana'o, knowledge, of experience and attachment to the land.
- HS: Yes. And what I'm interested in, as we look at these sources. The human resources. We look at the geological, the biological, the hydrological... That we have the ability to *haku* [weave] it into a comprehensive and complete narrative. That is on-going.
- KM: 'Ae.
- HS: It's a work always in progress. But to me, it is how we integrate them, that we understand that they are...it is a body of knowledge to be integrated, synthesized if you will.
- KM: Yes.
- HS: Because, too often, it becomes fragments of Hawaiian history [smiling].
- KM: Yes, and something, because it is fragmented, it is just tossed on the side. What we're doing here; my task has been to compile a good collection, particularly of things that were previously, almost unavailable.
- HS: Uh-hmm.
- KM: And then with the oral histories, so that State Parks, in its planning process, can indeed have the widest range of resources for integrating—again, and *ahupua'a* system, ecosystem management process, where it is integrated. All coming together.
- HS: Yes. And you know, as we do this work, I am humbled that in the generations before us, Kihe and Maguire *mā* collected those, and as expressed in the preface of "Kona

Legends," for the purposes of the children of this land who desire to know the history of their land.

KM: Yes. I discuss that as well in the study, following what Eliza Maguire and you yourself had written. Imagine, if every community had had a Ka'elemakule, Kihe, there would be so much.

HS: Yes. And because...I am not as familiar with his work as you, but his is a name that has formed my earliest memories. Because as we look to Eliza's preface, she clearly notes him as her source.

KM: Uh-hmm.

HS: And when I first went to the archives and I was looking at the petitions from the people of the kaha lands, and I saw his name... I'm giving myself chickenskin... When I saw his name written for the first time, I was just awash *i ka ha 'aha 'a* [with humility].

KM: 'Ae. Active! He was active in his community. Stewardship.

HS: As was Ka'elemakule.

KM: Yes. Just ensuring that people would remember this land. Imagine, these two sons of Kekaha, a land that is called barren and arid, and desolate. That these prolific writers would come from it.

HS: 'Ae. And when we look to Pai at Honokōhau-iki; to what the contemporary community has affected at Kohanaiki; of what we are affecting at Ka'ūpūlehu. There still is that deep abiding love of place, and vigor of the children of that place, to direct the course of the place.

KM: 'Ae.

HS: So, it is so cool.

KM: Alright, *mahalo*. *Aloha nō*.

HS: 'Ae.

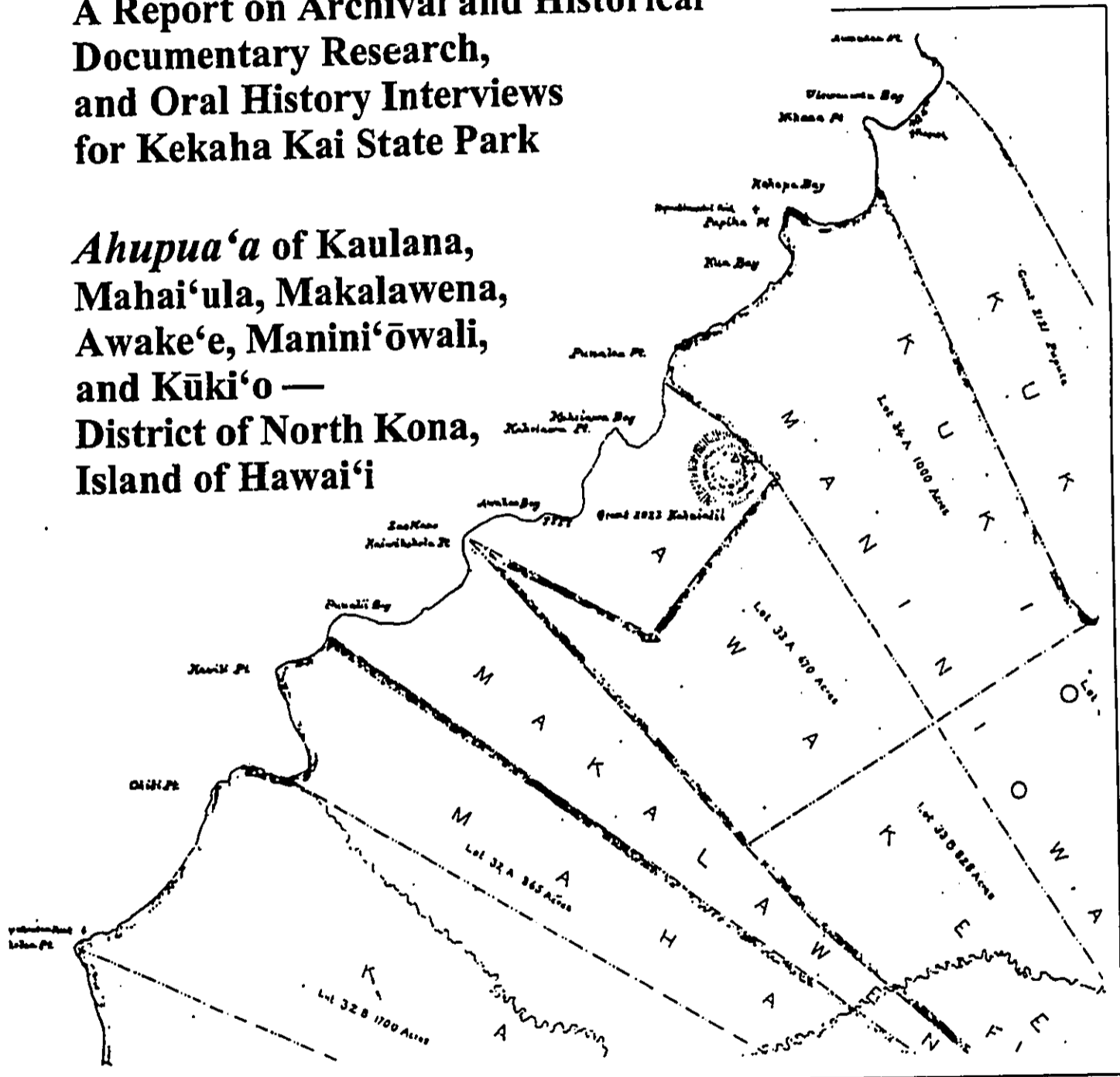
KM: *O ka mea maika 'i mālama, ka mea maika 'i 'ole, kāpae 'ia...*

HS: *Mahalo*. [end of interview]

“KEKAHA WAI ‘OLE O NĀ KONA”

A Report on Archival and Historical Documentary Research, and Oral History Interviews for Kekaha Kai State Park

Ahupua‘a of Kaulana, Mahai‘ula, Makalawena, Awake‘e, Manini‘ōwali, and Kūki‘o — District of North Kona, Island of Hawai‘i



Portion of Register Map 2035; Kaulana to Kūki‘o, North Kona, Hawai‘i
J.S. Emerson; Surveys of 1882 & 1888 (State Survey Division)



Kumu Pono Associates

*Historical & Archival Documentary Research • Oral History Studies • Partnerships in
Cultural Resources Management • Developing Preservation Plans and Interpretive Programs*

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APPENDIX A. PERSONAL RELEASE OF INTERVIEW RECORDS

Interviewees

<i>Valentine K. Ako</i>	• A-2
<i>Violet Lei Ka'elemakule-Collins</i>	• A-4
<i>Arthur M. Mahi</i>	• A-5
<i>Valentine Ako</i>	• A-6
<i>Margie Kailianu-Kaholo</i>	• A-7
<i>David. K. Keākealani</i>	• A-9
<i>Caroline Keākealani-Perreira</i>	• A-10
<i>Arthur M. Mahi</i>	• A-11
<i>Joseph Maka'ai</i>	• A-12
<i>Rose Pilipi-Maeda</i>	• A-13
<i>Karin K. Haleamau</i>	• A-14
<i>V. Lei Ka'elemakule-Collins</i>	• A-15
<i>Caroline K. Keākealani-Perreira</i>	• A-16
<i>George Kinoulu Kahananui</i>	• A-17
<i>Valetine K. Ako</i>	• A-18
<i>Leina'ala Keākealani-Lightner</i>	• A-19
<i>Tessa Gay Kamākia Magoon-Dye</i>	• A-20
<i>Hannah Kihalani Springer</i>	• A-21

PLEASE NOTE: It will be seen that some of the interviewees have set restrictions on access to audio recordings, and a video recording of November 8, 1997. Please respect the requests of those interviewees. And in all cases, please reference narratives in their context, as spoken—not selectively so as to make a point that was not the interviewee's intention.

Mahalo nui nō!

**Proposed Ali'i Highway Realignment Oral History Study
Personal Release of Interview Records**

I, Valentine Ako, have been previously interviewed by Kepa Maly, who is conducting an oral history study to record family recollections of land use and site histories of the North Kona community, with particular emphasis on the lands of Kahului to Keauhou, in conjunction with the proposed development of the Ali'i Highway Realignment project. I have reviewed the transcript or typed summary of interview and discussion notes and agree that said documentation is complete and accurate, except for those matters specifically set forth below the heading, "CLARIFICATION OR CORRECTIONS." I further agree that the interview information may be used, including releasing such information in a report to be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS--RESTRICTIONS SET BY INTERVIEWEE." I also agree that the ~~transcript~~ interview transcript(s), interview summary notes, and accompanying photograph (if one taken) may be curated for reference use at the Office of Hawaiian Affairs, the Department of Land and Natural Resources-State Historic Preservation Division, the Kona Historical Society, the office of Paul H. Rosendahl, Inc. (an archaeological consultant presently under contract with the County of Hawai'i), and by Kepa Maly.

V. Ako
"Pers. Comm."
May 23, 1996
Kepa Maly

CLARIFICATION OF CORRECTIONS:

As set forth in the transcript, referenced herein and made a part hereof, accompanying this Personal Release of Interview Records, highlighted in yellow.

CONFIDENTIALITY--SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS--RESTRICTIONS SET BY INTERVIEWEE:

See introduction of transcript released for public review--certain family documentation and site location information have been withheld from the original taped interview.

This interview, including but not limited to the transcript, typed summary, discussion notes and/or tape recorded materials derived therefrom, may not be published, in whole or in part, for public sale or for profit by Kepa Maly (hereinafter referred to as "Interviewer"), his agents, heirs, assigns, successors, or other agencies involved with this project, including but not limited to the Office of Hawaiian Affairs, the Department of Land and Natural Resources-State Historic Preservation Division, the Kona Historical Society, and the office of Paul H. Rosendahl, Inc., without the prior written consent of Valentine Ako (hereinafter referred to as "Interviewee"). If the Interviewee, is deceased, the prior written consent of his then surviving wife and children shall be obtained in his stead.

Page 1 of 2


Interviewee Initials

Interviewee's Background and Release:

Recorded Interview(s) made on Date(s): January 8-10, 1996

Interview Notes made on Date(s): January 8-10, 1996, March 18, 1996, and May 9, 1996

Written Text Transcriptions of Interviews reviewed and accepted on Date: May 21, 1996

Interviewee acknowledges receipt of a copy of the Interview tape on Date: May 21, 1996

May 21, 1996
Date

Valentine Ako
Valentine Ako, Interviewee

STATE OF HAWAII)
) SS.
COUNTY OF KAUAI)

On this 21st day of May, 1996, before me personally appeared VALENTINE AKO, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

Val M. Cant
Notary Public, State of Hawaii

My commission expires: 10/30/96

V. A.
Interviewee Initials

**Proposed Ali'i Highway Realignment Oral History Study
Personal Release of Interview Records**

I, Violet Lee Collins, have been previously interviewed by Kepā Maly, who is conducting an oral history study to record family recollections of land use and site histories of the North Kona community, with particular emphasis on the lands of Kahului to Keauhou. The interview was done in conjunction with the proposed Ali'i Highway Realignment project. I participated in informal (not recorded) oral history interview(s) on March 5; April 9, 1996. I have reviewed the typed, paraphrased summary of handwritten notes taken during our discussion(s), and agree that said documentation is complete and accurate, except for those matters specifically set forth below the heading, "CLARIFICATION OR CORRECTIONS." I understand that the County of Hawaii, State Department of Land and Natural Resources-Historic Preservation Division, Office of Hawaiian Affairs, Kona Historical Society, the office of Paul H. Rosendahl, Ph.D., Inc. (consultant archaeologist for the proposed Ali'i Highway project to the County of Hawaii), and Kepā Maly, will curate copies of the interview transcript and report in their collections. I further agree that the information may be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS."

CLARIFICATION OR CORRECTIONS: Corrections / revisions as
discussed on May 23, 1996.

**CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS—
RESTRICTIONS SET BY INTERVIEWEE:**

Typed Transcription of Interview Reviewed and accepted on Date: _____

Interviewee received a copy of the Final Interview Transcript on Date: _____

Violet Lee Collins
Interviewee

Kepā Maly
Interviewer-Witness

Date: May 23, 1996

Arthur M. Mahi
Personal Release of Oral History Interview Records

I, Arthur M. Mahi, participated in an oral history interview on April 23, 1996 with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the then "proposed" development of four shoreline swimming ponds along the coastal flats, Ka'ōpūlehu (for a development of Hualālai Development Company (HDC) and the Four Seasons Resort (FSR)), North Kona.

I have reviewed the transcript, recorded interview, and discussion notes and agree that said documentation is complete and accurate, except for those matters specifically set forth below the heading, "CLARIFICATION OR CORRECTIONS." I further agree that the interview information may be used, including *releasing such information in a report to be made public*, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the office of Paul H. Rosendahl, Inc. (an archaeological consultant to HDC), and by Kepā Maly.

CLARIFICATION OR CORRECTIONS:

July 9, 1996 Additional comments included at end of interview regarding the recent pond development and areas additional

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

*concern;
typed and reviewed during
discussion.*

Copies of the interview tapes to be curated by Arthur Mahi and family, Kona Hawaiian Civic Club, Kona Historical Society, and Kepā Maly.

Interview Background and Release:

Recorded Interview made on Date: April 22 and 23, 1996.

Interview Notes Made on Date(s): April 22-23, and July 9, 1996.

Type-Written Text Transcriptions of Interview Received on Date: May 2, 1996.

Interviewee received a copy of the interview tape on Date: May 2, 1996.

Arthur M. Mahi
Interviewee

Kepā Maly
Interviewer-Witness

Date: July 9, 1996

**Ka'ūpūlehu Oral History Interviews
Personal Release of Interview Records**

I, Valentine K. Ako, participated in an oral history interview at Ka'ūpūlehu, on December 7, 1996, with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the development of four shoreline swimming ponds along the coastal flats of Ka'ūpūlehu (for a development of Hualālai Development Company {HDC} and the Four Seasons Resort {FSR}), North Kona. The oral historical records are to be published in a report by Paul H. Rosendahl, Ph.D., Inc., (PHRI), prepared in compliance with a Federal Memorandum of Agreement and Kona Hawaiian Civic Club's legal action in Court Case Number 96-00571.

I have reviewed the typed transcript and/or recorded interview, and discussion notes, and agree that said documentation is complete and accurate, including changes made while reviewing the original transcript. I further agree that the interview information may be used, including releasing such information in a report to be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph(s) may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the Office of Hawaiian Affairs, the office of Paul H. Rosendahl, Inc. (an archeological consultant to HDC), and by Kepā Maly.

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

Minor changes as discussed 1/8/97

Interview Background and Release:

Recorded Interview made on Date: December 7, 1996 (see also previously released interview transcript of January 8, 1996).

Interview Notes Made on Date(s): Jan. 8, 1997

Type-Written Text Transcriptions of Interview
and Interview Tapes Received on Date: Transcripts mailed Jan. 4, 1997
(tapes to be forwarded when duplicated): _____

Valentine K. Ako
Interviewee

Kepā Maly
Interviewer-Witness
(released 1/8/97)

Address: P.O. Box 1584
Kapa'a, Hi 96746

**Ka'ūpūlehu-Pu'uana'hulu, North Kona Interviews:
Personal Release of Oral History Interview Records**

Interview of December 2, 1996:

I, Margie Kaholo-Kailiinu, participated in an oral history interview on December 2, 1996, with Kepā Maly, who was conducting an oral history study to record family recollections of land use and site histories of the Ka'ūpūlehu-Pu'uana'hulu area. The information was recorded only for use in the oral history study (PHRI Report 1733), being conducted as a part of the Kona Hawaiian Civic Club law suit (Case Number 96-00571) filed because of the development of three of four shoreline swimming ponds along the coastal flats of Ka'ūpūlehu (for a development of Hualālai Development Company {HDC} and the Four Seasons Resort {FSR}), North Kona.

I have reviewed the transcript, recorded interview, and discussion notes and agree that said documentation is complete and accurate. The interview of December 2, 1996, including but not limited to the transcript, typed summary, discussion notes and/or tape recorded materials derived therefrom, may not be published in whole or in part, for public sale, or profit (by Hualālai Development Co., Four Seasons Resort, Bishop Estate, the Kona Hawaiian Civic Club, Office of Hawaiian Affairs, Department of Land and Natural Resources-Historic Preservation Division, Paul H. Rosendahl, Ph.D., Inc., or Kepā Maly, and their agents, heirs, assigns, successors, or other agencies involved with this project) without the prior written consent of Raynett Kailianu-Shibata (power-of-attorney for Margie Kaholo-Kailiinu). Copies of the December 2, 1996 interview tapes and transcript will be curated by Raynett Kailianu-Shibata (for Margie Kaholo-Kailianu) and family, and Kepā Maly.

Interview of December 7, 1996:

On December 7, 1996, I (Margie Kaholo-Kailiinu) participated in a group oral history interview, conducted at Ka'ūpūlehu, with David Keākealani, Joseph Maku'ai, Caroline Kiniha'a Perreira, Rose Pilipi-Maeda, Val Ako, and Arthur Mahi. The interview was conducted for the same reason stated above, and I have reviewed the transcript and agree that said documentation is complete and accurate.

While the recording and transcript of the December 7, 1996 interview is herein released for public information and educational use, my family and heirs, request that no information from any portion of my interview documentation be used in any other publication, without prior consent from Raynett Shibata, on behalf of myself (Margie Kaholo-Kailiinu) and my heirs.

Interview Background and Release:

Recorded Interview made on Date: December 2, and 7, 1996

Interview Notes and Narrative Corrections Made on Date(s): 12 | 2 & 7 | 1996

Type-Written Text Transcriptions of the Interviews

were Received on Date: December 16, 1996 (Original transcript) and January 3, 1997 (original transcripts (interviews of Dec. 2 & 7, 1996) with Hawaiian-to-English translations). The interview tapes will be turned over upon completion of duplication.

Continued on Next Page

Margie Kaholo-Kailianu
Release of Interview Records

2

Margie U Kailianu
Interviewee

Raynett Shibata
Interviewer-Witness

J. Kelly Kailianu
Witness

1/17/97
Date

Address: Raynett Shibata
413 Kilauea Ave.
Hilo, Hawai'i 96720

(Interviewer: Keo Maly)
Jan. 22, 1997

MS. The interview information may not be used by the Office of Hawaiian Affairs
initials

**Ka'ūpūlehu Oral History Interviews
Personal Release of Interview Records**

1. David Ka'ōnohi Keākealani, participated in an oral history interviews on November 19, and December 7, 1996, with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the development of four shoreline swimming ponds along the coastal flats of Ka'ūpūlehu (for a development of Hualālai Development Company (HDC) and the Four Seasons Resort (FSR)), North Kona. The oral historical records are to be published in a report by Paul H. Rosendahl, Ph.D., Inc., (PHRI), prepared in compliance with a Federal Memorandum of Agreement and Kona Hawaiian Civic Club's legal action in Court Case Number 96-00571.

I have reviewed the typed transcript and/or recorded interview, and discussion notes, and agree that said documentation is complete and accurate, including changes made while reviewing the original transcript. I further agree that the interview information may be used, including releasing such information in a report to be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph(s) may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the Office of Hawaiian Affairs, the office of Paul H. Rosendahl, Inc. (an archaeological consultant to HDC), and by Kepā Maly.

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

Interview Background and Release:

Recorded Interviews made on Date: November 19, and December 7, 1996

Interview Notes Made on Date(s): _____

Type-Written Text Transcriptions of Interview

and Interview Tapes Received on Date: Transcripts mailed Jan. 4, 1997

(tapes to be forwarded when duplicated): _____

David K. Keākealani
Interviewee

Kathleen Kapua
Interviewer-Witness

Address: P.O. Box 302
HOLEALOA, HI. 96725

(Feb. 20, 1997)
Kepā Maly

**Ka'ūpūlehu Oral History Interviews
Personal Release of Interview Records**

I, Caroline ~~David Ka'onohi~~ Keākealani, participated in an oral history interviews on November ~~9~~⁷, and December 7, 1996, with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the development of four shoreline swimming ponds along the coastal flats of Ka'ūpūlehu (for a development of Hualālai Development Company (HDC) and the Four Seasons Resort (FSR)), North Kona. The oral historical records are to be published in a report by Paul H. Rosendahl, Ph.D., Inc., (PHRI), prepared in compliance with a Federal Memorandum of Agreement and Kona Hawaiian Civic Club's legal action in Court Case Number 96-00571.

I have reviewed the typed transcript and/or recorded interview, and discussion notes, and agree that said documentation is complete and accurate, including changes made while reviewing the original transcript. I further agree that the interview information may be used, including *releasing such information in a report to be made public*, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph(s) may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the Office of Hawaiian Affairs, the office of Paul H. Rosendahl, Inc. (an archaeological consultant to HDC), and by Kepā Maly.

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

Interview Background and Release:

Recorded Interviews made on Date: November ~~9~~⁷, and December 7, 1996

Interview Notes Made on Date(s): Feb. 20, 1997

Type-Written Text Transcriptions of Interview

and Interview Tapes Received on Date: Transcripts mailed Jan. 4, 1997

(tapes to be forwarded when duplicated): _____

Caroline K. Kekealani
Interviewee

Interviewer-Witness

Kepā Maly
Feb. 20, 1997

Address: P.O. Box 333
Pāpaikou HI 96781

**Ka'ūpūlehu Oral History Interviews
Personal Release of Interview Records**

I, Arthur Mikeele Mahi, participated in an oral history interview at Ka'ūpūlehu, on December 7, 1996, with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the development of four shoreline swimming ponds along the coastal flats of Ka'ūpūlehu (for a development of Hualālai Development Company {HDC} and the Four Seasons Resort {FSR}), North Kona. The oral historical records are to be published in a report by Paul H. Rosendahl, Ph.D., Inc., (PHRI), prepared in compliance with a Federal Memorandum of Agreement and Kona Hawaiian Civic Club's legal action in Court Case Number 96-00571.

I have reviewed the typed transcript and/or recorded interview, and discussion notes, and agree that said documentation is complete and accurate, including changes made while reviewing the original transcript. I further agree that the interview information may be used, including releasing such information in a report to be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph(s) may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the Office of Hawaiian Affairs, the office of Paul H. Rosendahl, Inc. (an archaeological consultant to HDC), and by Kepā Maly.

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

Interview Background and Release:

Recorded Interview made on Date: December 7, 1996 (see also the previously released interview of April 23, 1996).

Interview Notes Made on Date(s): _____

Type-Written Text Transcriptions of Interview

and Interview Tapes Received on Date: Transcripts mailed Jan. 4, 1997

(tapes to be forwarded when duplicated): _____

Arthur M. Mahi

Interviewee

Kepā Maly

Interviewer-Witness

Address: 73-4149 Hawaii Belt Rd
Kailua Kona Hawaii 96740

Jan. 16, 1997

**Ka'upulehu Oral History Interviews
Personal Release of Interview Records**

I, Joseph Pu'ipu'i "Wainuke" Maka'ai, participated in an oral history interview at Ka'upulehu, on December 7, 1996, with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the development of four shoreline swimming ponds along the coastal flats of Ka'upulehu (for a development of Hualālai Development Company {HDC} and the Four Seasons Resort {FSR}), North Kona. The oral historical records are to be published in a report by Paul H. Rosendahl, Ph.D., Inc., (PHRI), prepared in compliance with a Federal Memorandum of Agreement and Kona Hawaiian Civic Club's legal action in Court Case Number 96-00571.

I have reviewed the typed transcript and/or recorded interview, and discussion notes, and agree that said documentation is complete and accurate, including changes made while reviewing the original transcript. I further agree that the interview information may be used, including releasing such information in a report to be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph(s) may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the Office of Hawaiian Affairs, the office of Paul H. Rosendahl, Inc. (an archaeological consultant to HDC), and by Kepā Maly.

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

Interview Background and Release:

Recorded Interview made on Date: December 7, 1996

Interview Notes Made on Date(s): 12-7-96

Type-Written Text Transcriptions of Interview

and Interview Tapes Received on Date: Transcripts mailed Jan. 4, 1997

(tapes to be forwarded when duplicated): _____

Joseph A. Maka'ai
Interviewee

Kepā Maly
Interviewer-Witness

Feb. 13, 1997

Address: 161 Lania Rd.
Hilo, HI 96720

**Ka'upulehu Oral History Interviews
Personal Release of Interview Records**

I, Rose "Loke" Pilipi-Maeda, participated in an oral history interview at Ka'upulehu, on December 7, 1996, with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the development of four shoreline swimming ponds along the coastal flats of Ka'upulehu (for a development of Hualālai Development Company (HDC) and the Four Seasons Resort (FSR)), North Kona. The oral historical records are to be published in a report by Paul H. Rosendahl, Ph.D., Inc., (PHRI), prepared in compliance with a Federal Memorandum of Agreement and Kona Hawaiian Civic Club's legal action in Court Case Number 96-00571.

I have reviewed the typed transcript and/or recorded interview, and discussion notes, and agree that said documentation is complete and accurate, including changes made while reviewing the original transcript. I further agree that the interview information may be used, including releasing such information in a report to be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph(s) may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the Office of Hawaiian Affairs, the office of Paul H. Rosendahl, Inc. (an archaeological consultant to HDC), and by Kepā Maly.

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

Interview Background and Release:

Recorded Interview made on Date: December 7, 1996

Interview Notes Made on Date(s): 5 Feb 1997

Type-Written Text Transcriptions of Interview

and Interview Tapes Received on Date: Transcripts mailed Jan. 4, 1997

(tapes to be forwarded when duplicated): _____

Rose Pilipi Maeda
Interviewee

Shirley Maeda
Interviewer-Witness

Address: P.O. Box 744
Kapaau, Hi, 96755

(Received 2/5/97
Kepā Maly)

**Ka'ūpūlehu Oral History Interviews
Personal Release of Interview Records**

I, Karin Haleamau, participated in an oral history interview on January 22, 1997, with Kepā Maly, who was conducting an oral history study to record my family recollections of land use and site histories, and to record my concerns and thoughts about the development of four shoreline swimming ponds along the coastal flats of Ka'ūpūlehu (for a development of Hualālai Development Company {HDC} and the Four Seasons Resort {FSR}), North Kona. The oral historical records are to be published in a report by Paul H. Rosendahl, Ph.D., Inc., (PHRI), prepared in compliance with a Federal Memorandum of Agreement and Kona Hawaiian Civic Club's legal action in Court Case Number 96-00571.

I have reviewed the typed transcript and/or recorded interview, and discussion notes, and agree that said documentation is complete and accurate, including changes made while reviewing the original transcript. I further agree that the interview information may be used, including *releasing such information in a report to be made public*, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE." I also agree that the interview transcript, interview summary notes, and accompanying photograph(s) may be curated for reference and historical use by the Kona Hawaiian Civic Club and its representatives, the Department of Land and Natural Resources-State Historic Preservation Division and appropriate State, County, and Federal review agencies, the Kona Historical Society, the Office of Hawaiian Affairs, the office of Paul H. Rosendahl, Inc. (an archaeological consultant to HDC), and by Kepā Maly.

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS — RESTRICTIONS SET BY INTERVIEWEE:

Interview Background and Release:

Recorded Interview made on Date: January 22, 1997.

Interview Notes Made on Date(s): N/A

Type-Written Text Transcriptions of Interview
and Interview Tapes Received on Date: Transcripts mailed Feb. 4, 1997
(tapes to be forwarded when duplicated): _____

Karin K. Haleamau
Interviewee

Kepā Maly
Interviewer-Witness

Address: 723890 - A Hawaii Bldg Rd
Kailua-Kona, HI 96740

Feb. 20, 1997

**Personal Release of Interview Records:
Mahai'ula-Kekaha Oral History Interview**

Prepared in conjunction with Development of Kekaha State Park (Kona, Hawai'i)

The interview referenced below was recorded by Kepā Maly, under contract to Group 70 International, Inc., and the Division of State Parks, in conjunction with historical and archival documentary research for the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o (the Kekaha study area).

A full copy of the final historical and oral history study (including the video recording) will be provided to interview participants by the Department of Land and Natural Resource-State Parks Division of the State of Hawai'i.

Date of Interview: November 8, 1997.

I, Mrs. Lai Cee, participated in an oral history interview with Kepā Maly, and hereby grant rights to the interview done by me (including tape-recordings, transcripts, and expanded notes) to Kepā Maly (*Kumu Pono Associates*). I grant my rights to the interview records to Kepā Maly as follows, subject to any restrictions listed below:

(a) Quotes from the interview(s) may be used as a part of the final report on historic and cultural sites and practices in the Kona study area, or reference may be made to the information in the interview(s). Copies of the interview records may be made available to the Department of Land and Natural Resource-State Parks Division, and Group 70 International, Inc.

Yes or no: yes

(b) The interview records may be referenced by Kepā Maly for scholarly publication.

Yes or no: yes

(c) The interview records may be housed in library and historical collections for general public access.

yes telecom -
4/14/98

Yes or no: none

(d) Restrictions: →

Mrs. Lai Cee

Interviewee-Narrator

Kepā Maly

Interviewer-Witness

(note received with
release
4/16/98)

Address: 755286 Māmalaohā Hwy 1-14-98

Date of Release

Holualoa Kona Hi

96725

**Personal Release of Interview Records:
Oral History Interviews of Kekaha (Pu'uana'hulu-Ka'upulehu to Mahai'ula)
Prepared in conjunction with Development of Kekaha State Park (Kona, Hawai'i)**

The interviews referenced below were recorded by Kepā Maly, as a part of studies being conducted in conjunction with: (1) the proposed development of shore line ponds at Ka'upulehu (Maly - PHRI Report 1733-043197 — by Release of February 20, 1997); and (2) a study of historical and archival documentary research for the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'owali, and Kūki'o (the Kekaha Kai State Park study area).

A full copy of the final historical and oral history study (including the video recording) will be provided to interview participants by the Department of Land and Natural Resource-State Parks Division of the State of Hawai'i.

Date of Interviews: November 7 & December 7, 1996; and November 8, 1997.

I, Caroline Kiniha'a Keākealani-Perreira, participated in oral history interviews with Kepā Maly, and hereby grant rights to the interview done by me (including tape-recordings, transcripts, and expanded notes) to Kepā Maly (*Kumu Pono Associates*). I grant my rights to the interview records to Kepā Maly as follows, subject to any restrictions listed below:

(a) Quotes from the interview(s) may be used as a part of the final report on historic and cultural sites and practices in the Kona study area, or reference may be made to the information in the interview(s). Copies of the interview records may be made available to the Department of Land and Natural Resource-State Parks Division, and Group 70 International, Inc.

Yes/or no: _____

(b) The interview records may be referenced by Kepā Maly for scholarly publication.

Yes/or no: _____

(c) The interview records may be housed in library and historical collections for general public access.

Yes/or no: _____

(d) Restrictions:

Caroline K. Perreira
Interviewee-Narrator

Kepā Maly
Interviewer-Witness

Address: P.O. Box 333
Pāpa'ikou, Hawai'i 96781

Feb - 19, 1998
Date of Release

**Personal Release of Interview Records:
Mahai'ula-Kekaha Oral History Interview**

Prepared in conjunction with Development of Kekaha State Park (Kona, Hawai'i)

The interview referenced below was recorded by Kepā Maly, under contract to Group 70 International, Inc., and the Division of State Parks, in conjunction with historical and archival documentary research for the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o (the Kekaha study area).

A full copy of the final historical and oral history study (including the video recording) will be provided to interview participants by the Department of Land and Natural Resource-State Parks Division of the State of Hawai'i.

Date of Interview: November 8, 1997.

I, George Kinoulou Kahananui, participated in an oral history interview with Kepā Maly, and hereby grant rights to the interview done by me (including tape-recordings, transcripts, and expanded notes) to Kepā Maly (*Kumu Pono Associates*). I grant my rights to the interview records to Kepā Maly as follows, subject to any restrictions listed below:

(a) Quotes from the interview(s) may be used as a part of the final report on historic and cultural sites and practices in the Kona study area, or reference may be made to the information in the interview(s). Copies of the interview records may be made available to the Department of Land and Natural Resource-State Parks Division, and Group 70 International, Inc.

Yes or no: Yes

(b) The interview records may be referenced by Kepā Maly for scholarly publication.

Yes or no: pending further work

(c) The interview records may be housed in library and historical collections for general public access.

Yes or no: for Kekaha Kai S.P. interpretive use.

(d) Restrictions:

Limited release - for use with this study - Kekaha Kai State Park. Pending further site and interview work with author.

G.K. Kahananui
Verbal Release / Kona Feb 21, 1998

Interviewee-Narrator

Kepā Maly
Interviewer-Witness

Address: P.O. Box 2787

Kailua-Kona, Hawai'i 96745

Limited Release Feb. 21, 1998

Date of Release

**Personal Release of Interview Records:
Mahai'ula-Kekaha Oral History Interview
Prepared in conjunction with Development of Kekaha State Park (Kona, Hawai'i)**

The interview referenced below was recorded by Kepā Maly, under contract to Group 70 International, Inc., and the Division of State Parks, in conjunction with historical and archival documentary research for the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o (the Kekaha study area).

A full copy of the final historical and oral history study (including the video recording) will be provided to interview participants by the Department of Land and Natural Resource-State Parks Division of the State of Hawai'i.

Date of Interview: November 8, 1997.

I, Valentine (Uke), participated in an oral history interview with Kepā Maly, and hereby grant rights to the interview done by me (including tape-recordings, transcripts, and expanded notes) to Kepā Maly (*Kumu Pono Associates*). I grant my rights to the interview records to Kepā Maly as follows, subject to any restrictions listed below:

(a) Quotes from the interview(s) may be used as a part of the final report on historic and cultural sites and practices in the Kona study area, or reference may be made to the information in the interview(s). Copies of the interview records may be made available to the Department of Land and Natural Resource-State Parks Division, and Group 70 International, Inc.

Yes or no: yes

(b) The interview records may be referenced by Kepā Maly for scholarly publication.

Yes or no: yes

(c) The interview records may be housed in library and historical collections for general public access.

Yes or no: yes

(d) Restrictions:

Video recording made on November 8, 1997 must be reviewed by myself or heirs and Kepa Maly before public disclosure.

Valentine (Uke)
Interviewee-Narrator

Elizabeth K. Oka
Interviewer-Witness

Address P.O. Box 1584

December 10, 1997
Date of Release

Kona, HI 96746-7584

**Personal Release of Interview Records:
Mahai'ula-Kekaha Oral History Interview**

Prepared in conjunction with Development of Kekaha State Park (Kona, Hawai'i)

The interview referenced below was recorded by Kepā Maly, under contract to Group 70 International, Inc., and the Division of State Parks, in conjunction with historical and archival documentary research for the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o (the Kekaha study area).

A full copy of the final historical and oral history study (including the video recording) will be provided to interview participants by the Department of Land and Natural Resource-State Parks Division of the State of Hawai'i.

Date of Interview: November 8, 1997.

I, Leina'ala Keākealani-Lightner, participated in an oral history interview with Kepā Maly, and hereby grant rights to the interview done by me (including tape-recordings, transcripts, and expanded notes) to Kepā Maly (*Kumu Pono Associates*). I grant my rights to the interview records to Kepā Maly as follows, subject to any restrictions listed below:

(a) Quotes from the interview(s) may be used as a part of the final report on historic and cultural sites and practices in the Kona study area, or reference may be made to the information in the interview(s). Copies of the interview records may be made available to the Department of Land and Natural Resource-State Parks Division, and Group 70 International, Inc.

Yes or no: yes

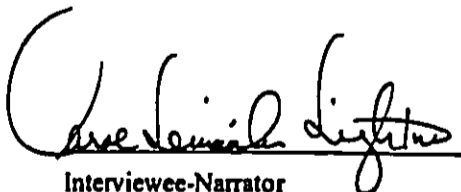
(b) The interview records may be referenced by Kepā Maly for scholarly publication.

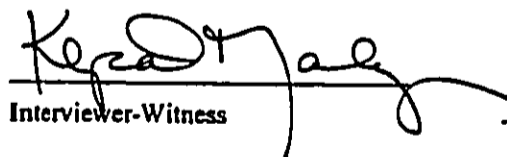
Yes or no: yes

(c) The interview records may be housed in library and historical collections for general public access.

Yes or no: yes

(d) Restrictions: none


Interviewee-Narrator


Interviewer-Witness

Address: P.O. Box 684
Kailua-Kona, Hawai'i 96745

Feb. 19, 1998
Date of Release

**Personal Release of Interview Records:
Mahai'ula-Kekaha Oral History Interview**

Prepared in conjunction with Development of Kekaha State Park (Kona, Hawai'i)

The interview referenced below was recorded by Kepā Maly, under contract to Group 70 International, Inc., and the Division of State Parks, in conjunction with historical and archival documentary research for the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o (the Kekaha study area).

A full copy of the final historical and oral history study will be provided to interview participants by the Department of Land and Natural Resource-State Parks Division of the State of Hawai'i.

Date of Interview: December 22, 1997.

I, Tessa Gay Kāmākia Magoon-Dye, participated in an oral history interview with Kepā Maly, and hereby grant rights to the interview done by me (including tape-recordings, transcripts, and photographs) to Kepā Maly (*Kumu Pono Associates*). I grant my rights to the interview records to Kepā Maly as follows, subject to any restrictions listed below:

(a) Quotes from the interview(s) may be used as a part of the final report on historic and cultural sites and practices in the Kona study area, or reference may be made to the information in the interview(s). Copies of the interview records may be made available to the Department of Land and Natural Resource-State Parks Division, and Group 70 International, Inc.

Yes or no: yes

(b) The interview records may be referenced by Kepā Maly for scholarly publication.

Yes or no: yes

(c) The interview records may be housed in library and historical collections for general public access.

Yes or no: yes

(d) Restrictions:

*with corrections and notes from
Feb. 25, 1998*

Tessa Gay Magoon-Dye
Interviewee-Narrator

Kepā Maly
Interviewer-Witness

Address: 1055 Koooho Pl.
Kailua, Hawai'i 96734

*
25 February, 1998.
Date of Release

**Personal Release of Interview Records:
Mahai'ula-Kekaha Oral History Interview
Prepared in conjunction with Development of Kekaha State Park (Kona, Hawai'i)**

The interview referenced below was recorded by Kepā Maly, under contract to Group 70 International, Inc., and the Division of State Parks, in conjunction with historical and archival documentary research for the *ahupua'a* of Kaulana, Mahai'ula, Makalawena, Awake'e, Manini'ōwali, and Kūki'o (the Kekaha study area).

Date of Interview: February 3, 1998.

I, Hannah Kihalani Springer, participated in an oral history interview with Kepā Maly, and hereby grant rights to the interview done by me (including tape-recordings, transcripts, and expanded notes) to Kepā Maly (*Kumu Pono Associates*). I grant my rights to the interview records to Kepā Maly as follows, subject to any restrictions listed below:

(a) Quotes from the interview(s) may be used as a part of the final report on historic and cultural sites and practices in the Kona study area, or reference may be made to the information in the interview(s). Copies of the interview records may be made available to the Department of Land and Natural Resource-State Parks Division, and Group 70 International, Inc.

Yes or no: yes

(b) The interview records may be referenced by Kepā Maly for scholarly publication.

Yes or no: yes

(c) The interview records may be housed in library and historical collections for general public access.

Yes or no: yes

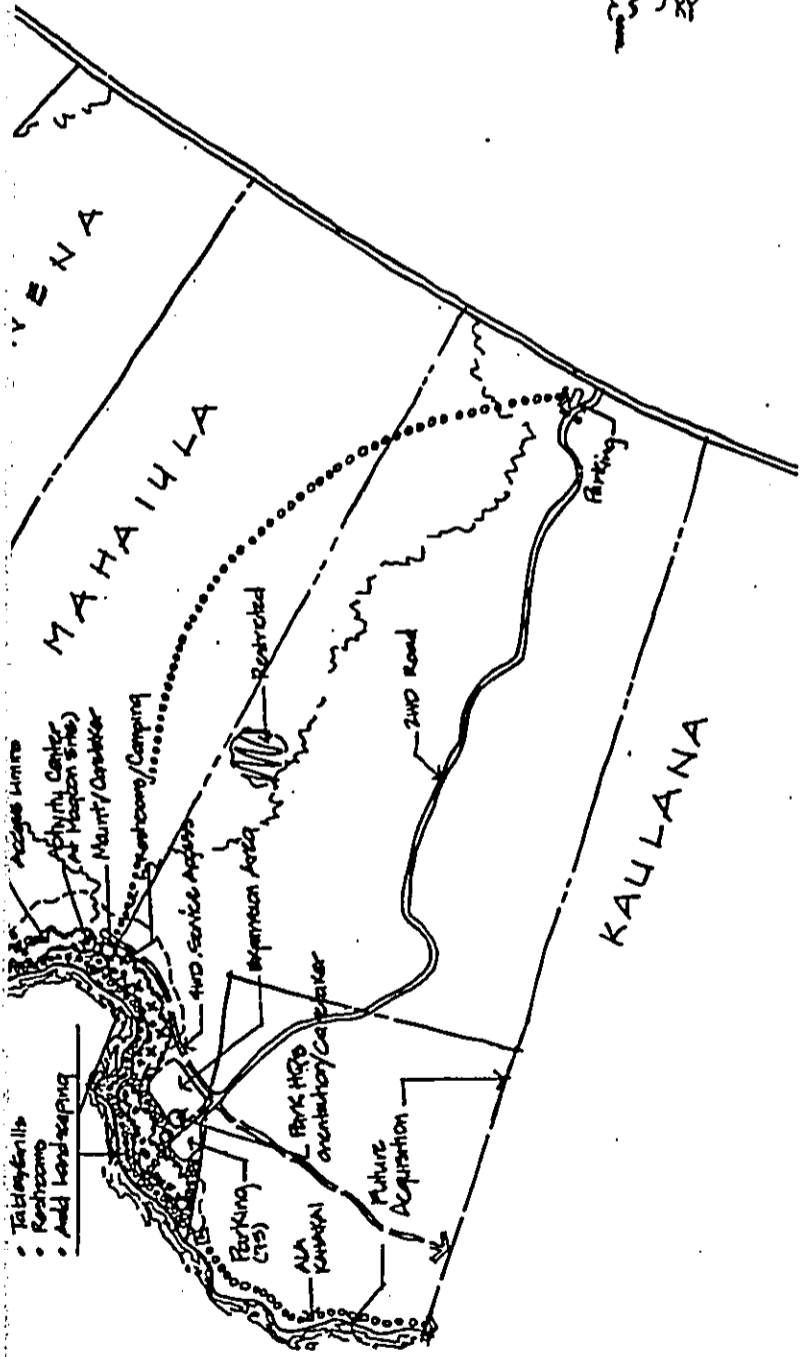
(d) Restrictions:

Kepā Maly Interviewee-Narrator
Hannah Kihalani Springer Interviewer-Witness

Address: Kukui'ohiwai -- Kona, Hawai'i
Ph. 325-5126 / 594-1882

March 3, 1998
Date of Release

REDUCED IN FILE



KONA COAST

Conceptual Master Plan

GROUP 70
 CONSULTANTS

REVISED 5 OCTOBER 1995

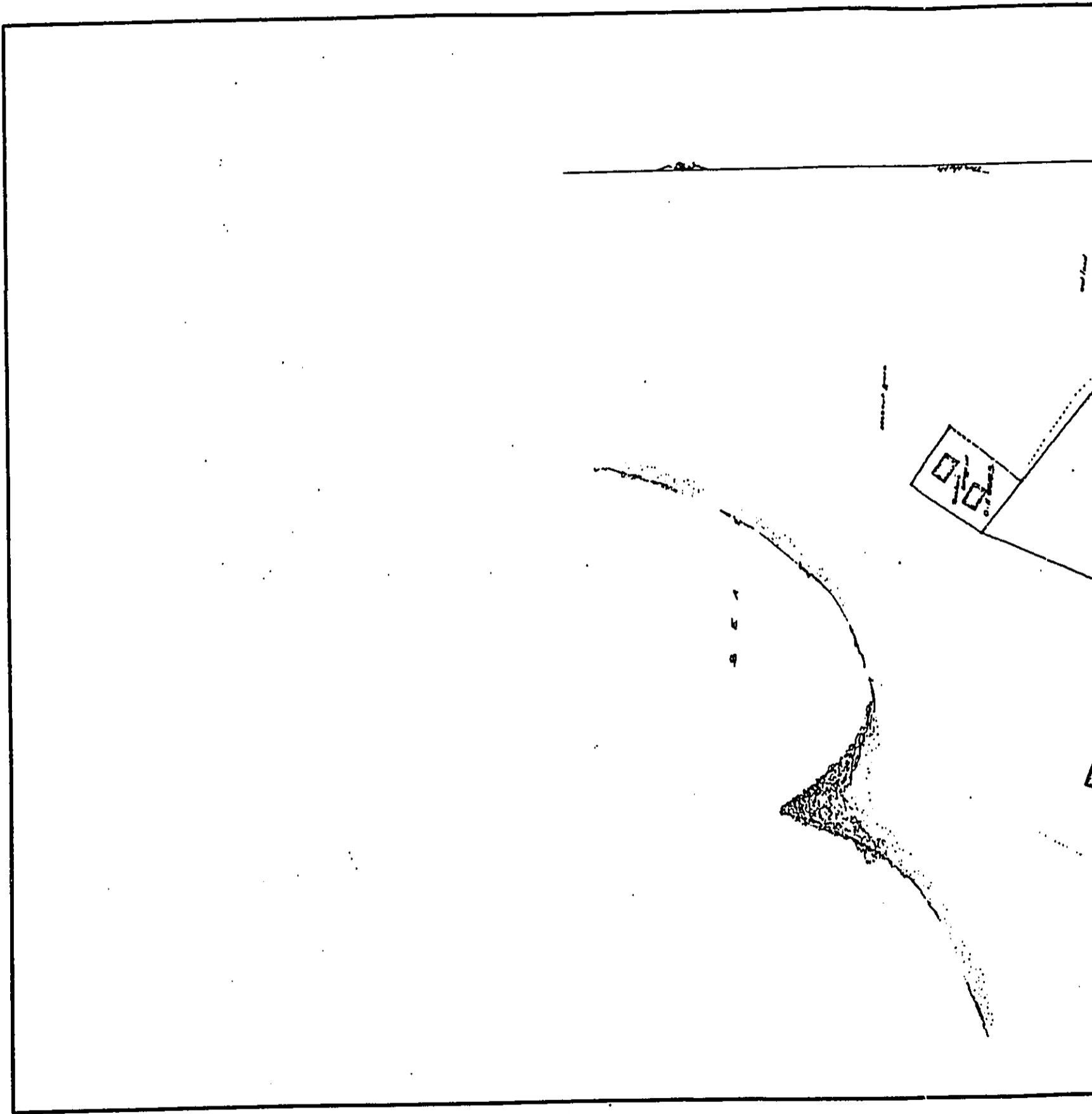
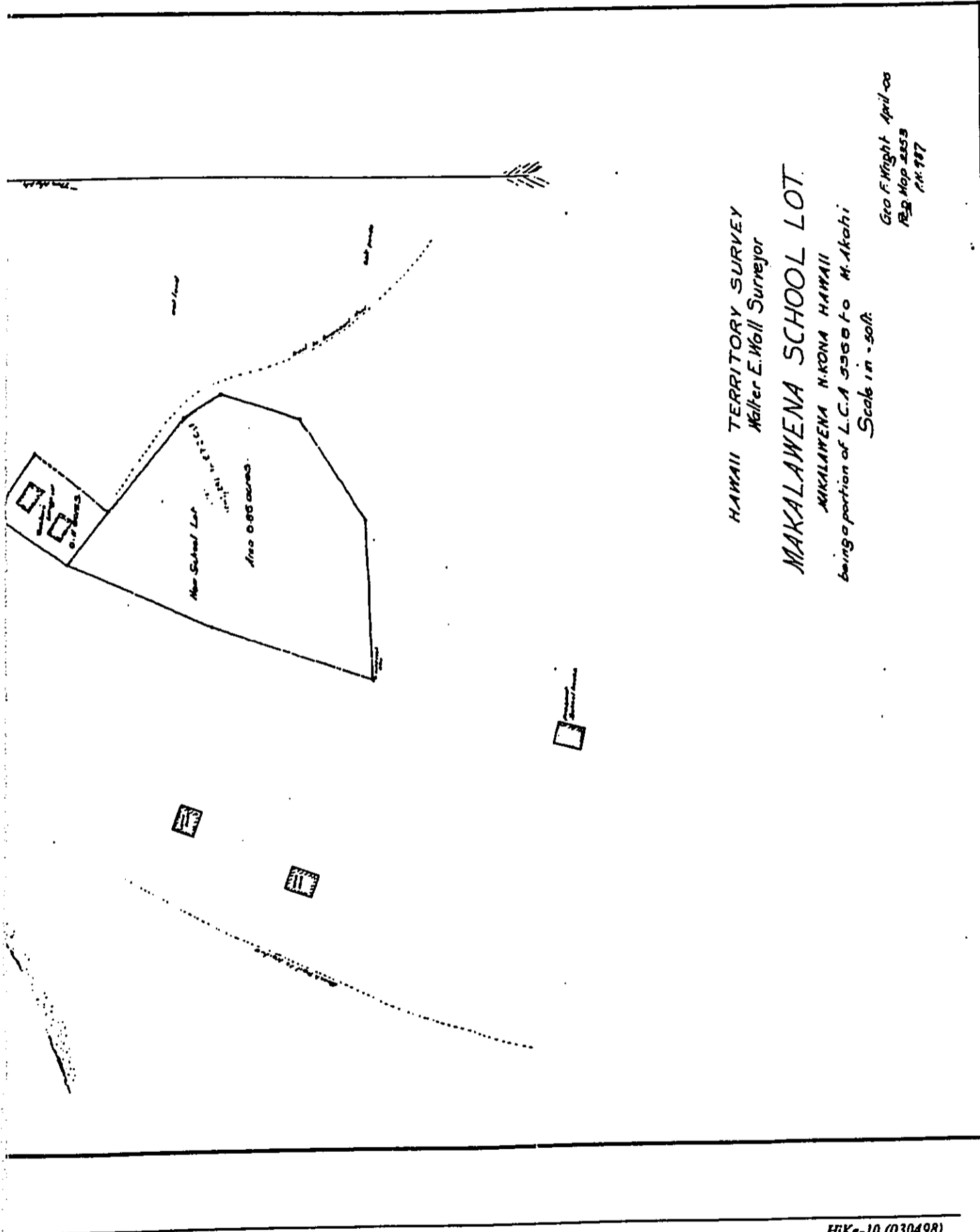


Figure 4. Register Map 2353; Geo. F. Wright, April 1906 – State Survey Division



HAWAII TERRITORY SURVEY
 Walter E. Hohl Surveyor

MAKALAWENA SCHOOL LOT.
 MAKALAWENA N. KONA HAWAII
 being a portion of L.C.A. 5555 to M. Akahi
 Scale 1 in = 50 ft.

Geo. F. Wright April-08
 REG. MAP 2253
 PL. 187

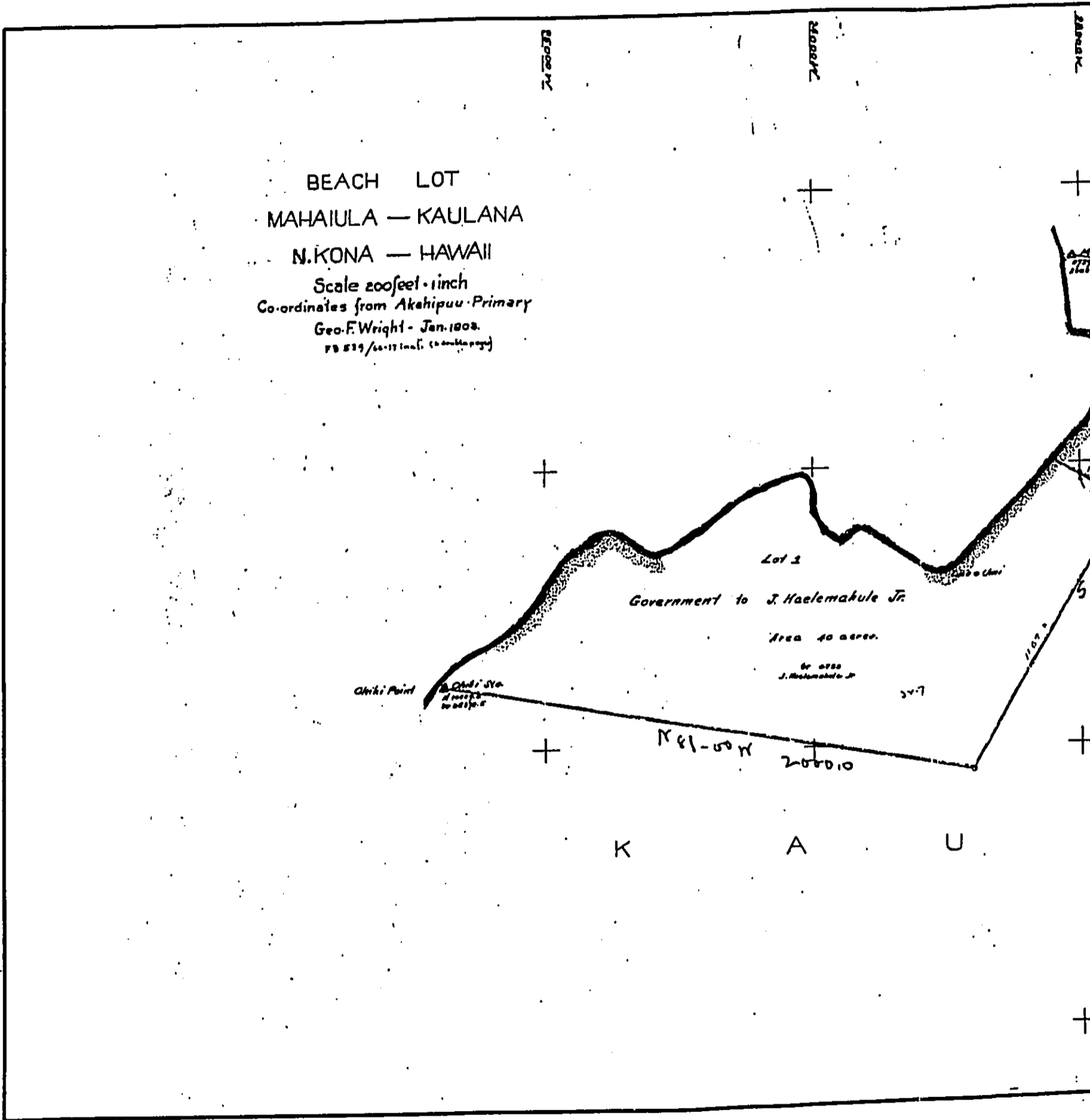
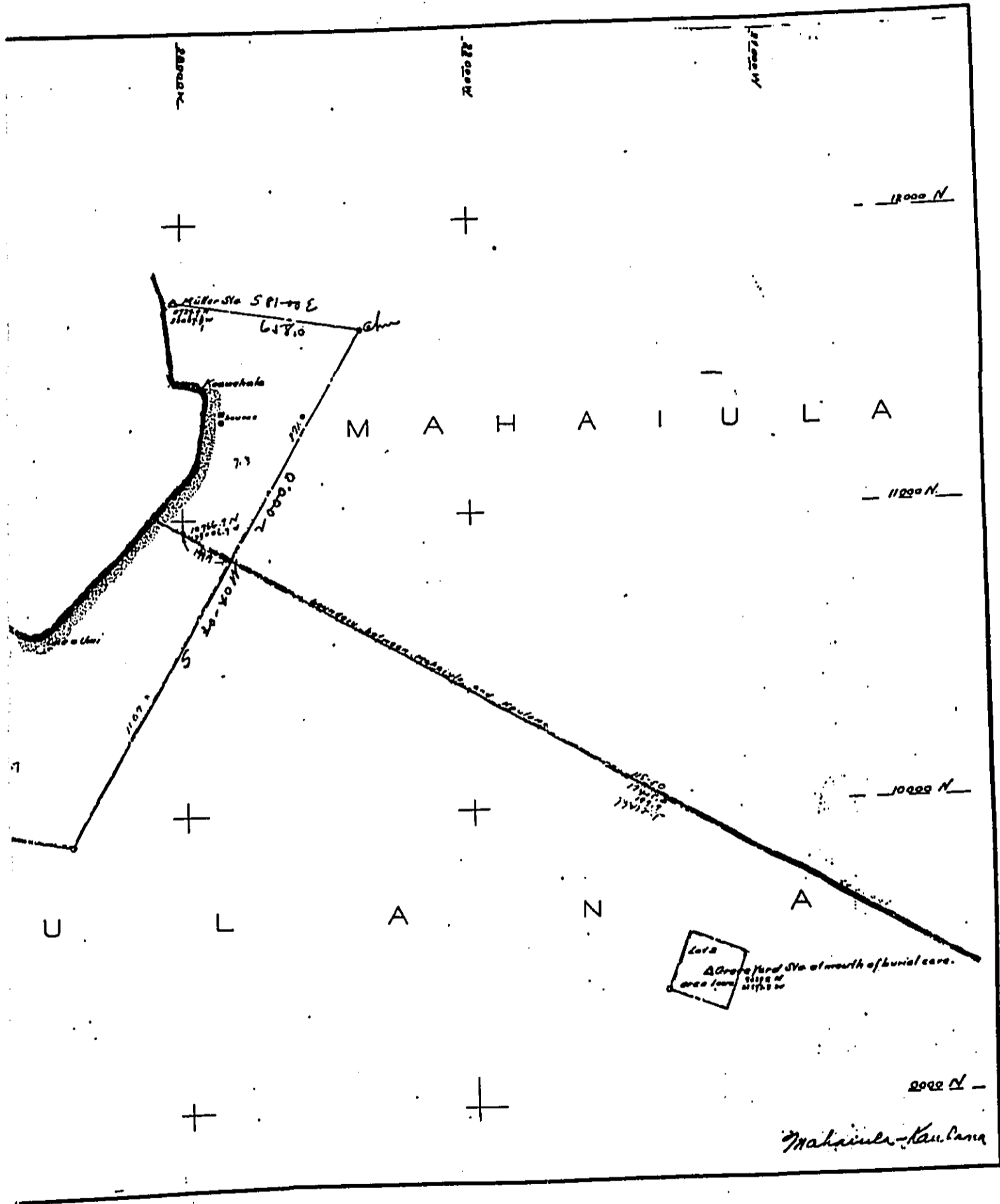


Figure 12. Map of Grant 4723, Mahaiula-Kaulana Beach Lot (Land Management Division)



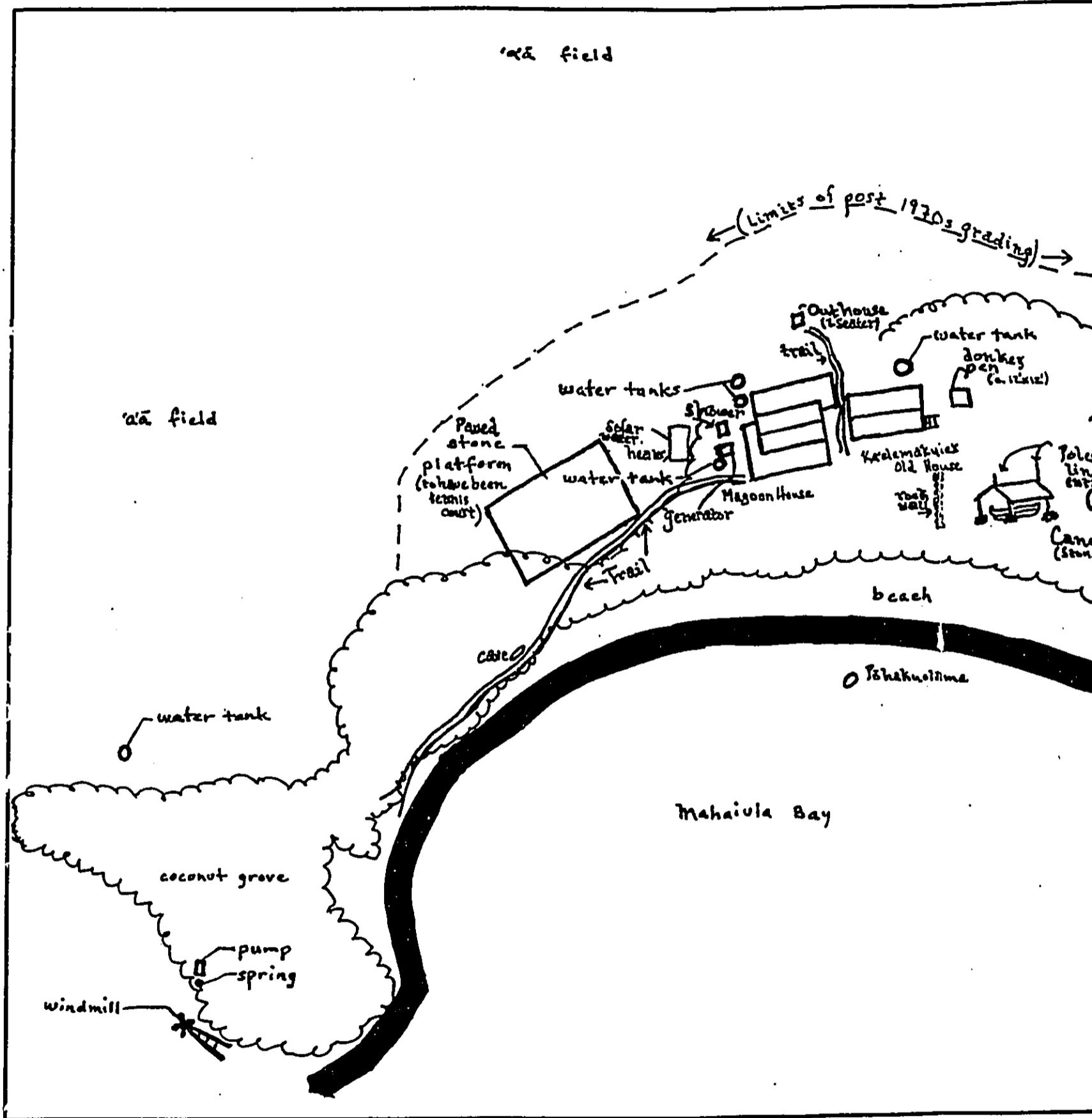
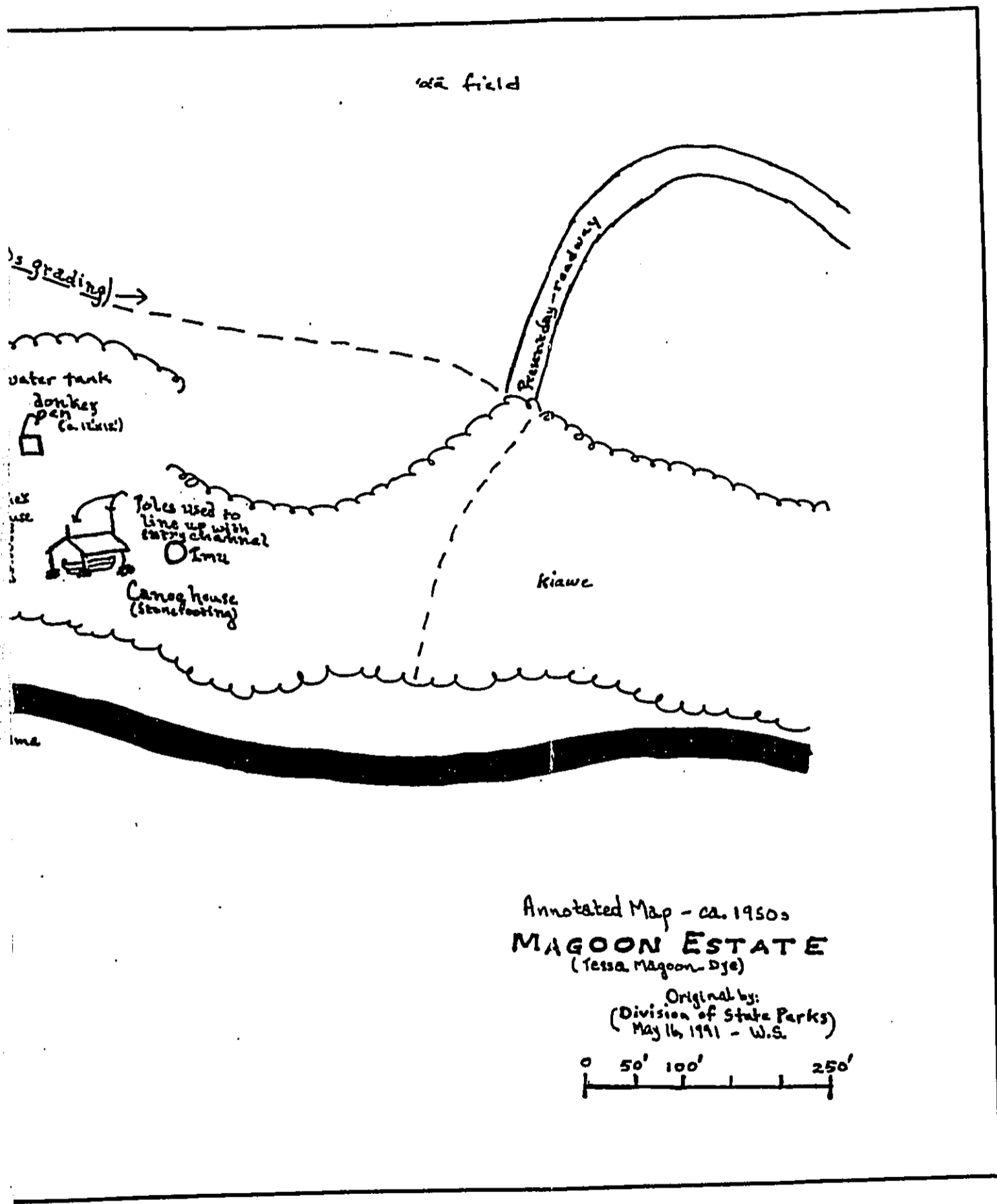


Figure 18 – Grounds and Features Magoon Beach Home at Mahai'ula (ca. 1950s)



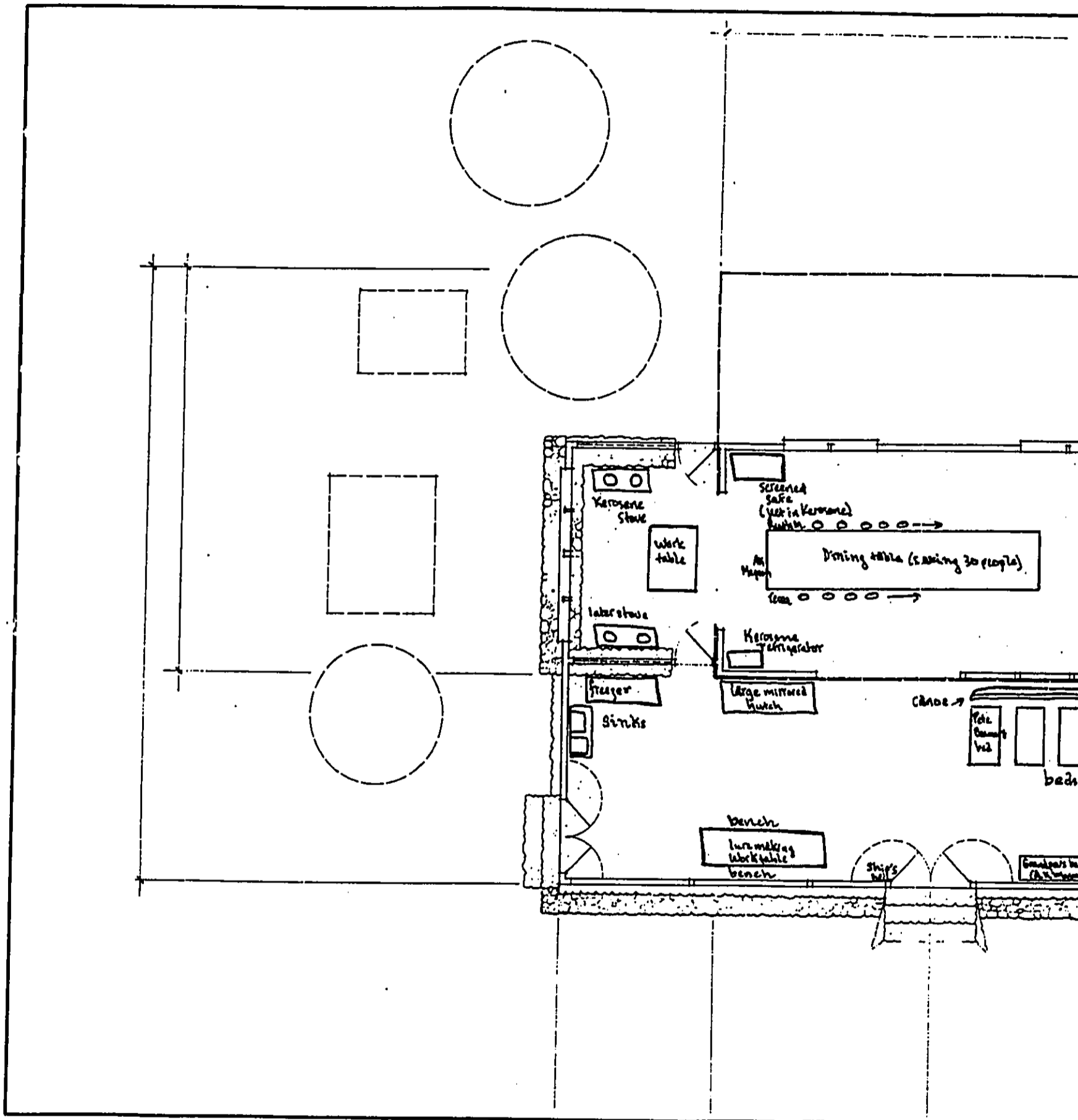


Figure 20 – Floor Plan (first floor), Magoon Beach Home at Mahai'ula (ca. 1950s)

